MASTER SERVICE AGREEMENT

FOR INFORMATION TECHNOLOGY OUTSOURCING SERVICES

BY AND BETWEEN

CITY OF SANTA CLARA

AND

UNISYS CORPORATION

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THIS MASTER SERVICE AGREEMENT ("Agreement" and “MSA”) is entered into as of July 1, 2017 ("Effective Date") by and between the City of Santa Clara, California, a chartered California municipal corporation and its affiliated local agencies with its primary business address at 1500 Warburton Avenue, Santa Clara, California 95050 (“City” and “Customer”); and Unisys, a Delaware corporation, with its principal place of business located at 801 Lakeview Drive, Suite 100, Blue Bell, Pennsylvania 19422 ("Service Provider" and “Contractor”). City and Contractor may be referred to individually as a “Party” or collectively as the “Parties” or the “Parties to this Agreement.”

WHEREAS, in response to Customer's request for proposals to provide certain information technology outsourcing services to Customer ("Request for Proposal"), Service Provider submitted to Customer its proposal to provide information technology outsourcing services to Customer ("Proposal"); and

WHEREAS, Service Provider has represented that it is a competent, qualified, and experienced provider of IT services of the type required by this Agreement, and has advised City that it can fulfill and satisfy the requirements of this Agreement.

WHEREAS, based on the Proposal, Customer and Service Provider have engaged in extensive negotiations and discussions that have culminated in the formation of the relationship described in this Agreement with respect to the information technology outsourcing services in order to:

Create advantage for Customer and Customer’s end-users through the outsourcing of the Services (as defined below), achieve best-in-class standards and sustain and enhance such standards through continuous improvement;

Reduce Customer's current expenditure on operations and support activities for IT systems by obtaining competitive market prices and introducing best of breed support processes through the provision of the Services as provided in this Agreement;

Improve Service Levels through regular assessment and reviews of all processes and procedures for the performance of the Services, and improve overall productivity to provide significant value to Customer; and

Provide a prompt and smooth Transition (as defined below) of the Services in accordance with the Transition Plan (as defined below) with minimum disruption to Customer's business.

NOW THEREFORE, the Parties hereby agree as follows:

1. INTERPRETATION

1.1 Defined Terms. The defined terms used in this Agreement will have the meanings set forth in Schedule 1 or stated where they first appear, unless the context clearly requires otherwise.

1.2 Reference to Statutes. A reference to any statute, enactment, order, regulation or other similar instrument will be construed as a reference to the statute, enactment, order, regulation or instrument as amended by any subsequent statute, enactment, order, regulation or instrument or as contained in any subsequent re-enactment thereof.

1.3 Headings. Headings are in this Agreement for ease of reference only and will not affect the interpretation or construction of this Agreement.

1.4 Interpretation. The recitals above are (i) intended as a general statement of purposes for this Agreement; and (ii) are not intended to expand or contract the scope of the Parties’ obligations or to alter the plain meaning of this Agreement’s terms and conditions. However, the Parties do intend that the Agreement be interpreted and performed in a manner consistent with these objectives.

1.5 Section References. References to Articles, Sections, Schedules and Appendices are, unless otherwise provided, references to articles, sections, schedules and appendices to this Agreement.

1.6 [RESERVED].

1.7 Waiver of Presumption. The Parties are sophisticated and have been represented by counsel during the negotiation of this Agreement. As a result, any presumption or rules of construction relating to the interpretation of contracts against the drafter thereof should not apply. The Parties hereby waive any such presumption or rule.

2. AGREEMENT STRUCTURE

2.1 General. This Agreement sets out the Parties' agreement as to the provision of Services from Service Provider to Customer.

2.2 [RESERVED].

2.3 [RESERVED].

2.4 Order of Precedence. This Agreement, all Schedules thereto, will be construed to be consistent, insofar as reasonably possible. In the event of any conflict between the provisions of the Master Service Agreement, the Schedules thereto, the conflict will be resolved in accordance with the following order of precedence: first, the Master Service Agreement; and second, the Master Service Agreement Schedules; provided, however, that any specific description of any service or other performance obligation in any Schedule will supersede any inconsistent general reference in the relevant agreement.

2.5 Amendment, Modification. This Agreement may only be amended, varied or modified by further written agreement of authorized representatives of Service Provider and Customer. Any such amendment, variation or modification will be binding upon both Parties.

2.6 [RESERVED].

2.7 [RESERVED].

2.8 [RESERVED].

2.9 [RESERVED].

3. SCOPE OF SERVICES

3.1 Services. Commencing on the effective date of each Service, whether under this Agreement and its Schedules, and continuing throughout the term of said agreements, Service Provider will be responsible for providing to Customer:

3.1.1 The tasks, services, functions and responsibilities described in this Agreement (the services, functions and responsibilities described in the Schedule 3, Service Description, attached hereto), or in any of the other associated Schedules, Appendices or other documents attached to this Agreement and incorporated herein by reference;

3.1.2 The services, functions and responsibilities being performed within the twelve (12)-month period prior to the Effective Date by Customer's personnel or contractors whose services, functions or responsibilities are displaced or transitioned as a result of this Agreement, even if the service, function or responsibility is not specifically described in this Agreement or any Service Description;

3.1.3 The services, functions and responsibilities contemplated by the Customer's Base Case;

3.1.4 Any services, functions or responsibilities not specifically described in this Agreement, but which are inherent in or necessary for the proper performance and delivery of the Services and not otherwise expressly excluded by the Parties;

3.1.5 Other miscellaneous activities related to the Services that Customer may request from time to time that do not require additional resources or affect Service Levels or other agreed performance standards; and

3.1.6 If any functions not specifically described in this Agreement are required, necessary or customary for, or incidental or ancillary to, the proper performance and provision of the Services in accordance with the requirements of this Agreement (including the performance standards), such functions will be deemed to be implied by and included within the scope of the Services (and provided to Customer at no additional charge) to the same extent and in the same manner as if expressly described in this Agreement.

3.2 Project Services. The Services contain certain Project Services. Personnel assigned to perform Project Services will possess the training, education, skills and competence necessary to perform their assigned responsibility, and unless Customer otherwise agrees, will be chosen from personnel ordinarily assigned to the performance of Services for Customer. When Service Provider proposes additional staff or resources for Project Services, Customer, at its option, may: (i) temporarily relieve Service Provider of Service Level obligations, so that Services may be performed with available staff or resources, without additional Charges or undue impact upon operations or user satisfaction; or (ii) authorize additional staff and resources, for which Customer will pay based on approved contract rate card, or (iii) adjust against any available credits to the Customer. There will be no additional charge for Project management performed by Contract Staff ordinarily assigned to performance of Services for Customer.

3.3 Location of Services. All Services will be provided by the Service Provider either at Customer premises or from the Service Provider Service Location specified in the applicable Service Description within the United States. No Services, in part or in full, will be performed from any Service Provider Service Location outside the United States, without expressed agreement of the Customer.

3.4 Reports. Service Provider will provide to Customer, the monthly and other periodic reports concerning Service Provider's service and performance specified in Schedule 7, Reports, such as data that are necessary and appropriate for the calculation and/or review of Service Levels and weekly time sheets for Customer dedicated personnel reflecting activities performed by the Service Provider. Additional reporting requirements and change procedures related to reporting are specified in Schedule 17, Governance Model. Periodic reports may be based upon Service Provider's standard forms of reports to its customers, if they provide the information that Customer reasonably requires or the reporting shall be based on the format specified by the Customer. Reporting requirements will contain read-only online access for responsible Customer management to tools used to manage delivery of service (e.g., "dashboards" for Service Level performance, trouble-ticket systems). Service Provider will provide all tools and procedures required for reporting Service Levels are implemented and customized as required at no additional cost to Customer.

3.5 [RESERVED].

3.6 Out-of-Scope Services and New Services. Customer may from time to time request that Service Provider perform an Out-of-Scope Service and New Services. Within five (5) business days of Customer's request, Service Provider will provide Customer with a written proposal for such Out-of-Scope Service or New Services that will address (i) a description of the services, functions and responsibilities Service Provider anticipates performing in connection with such Out-of-Scope Service or New Services; (ii) a schedule for commencing and completing such Out-of-Scope Service or New Services with commencement not later than thirty (30) days after Customer's approval (if any) of such Out of Scope

Service or New Services, unless otherwise mutually agreed by the Parties; (iii) Service Provider's prospective fixed price Fees for such Out-of-Scope Service or New Services, with a detailed breakdown of such Fees; (iv) a description of any new software or hardware to be provided by Service Provider in connection with such Out-of-Scope Service or New Services; and (v) such other information as may be requested by Customer.

The proposal shall constitute Service Provider's firm offer, irrevocable for ten (10) business days (or such longer period as required by such proposal, the "Response Period"), to perform such services as described in such proposal upon the terms and conditions set forth therein. Prior to the expiration of the Response Period, Customer shall notify Service Provider in writing if Customer elects to accept Service Provider's proposal and proceed with implementation of the Out-of-Scope Service or New Services upon the terms and conditions set forth therein (any such notice, a "Notice to Proceed"). If, within the Response Period, Customer gives notice to Service Provider not to proceed, or fails to give any notice to Service Provider, then Provider's proposal shall be deemed rejected and the proposal for the Out-of-Scope Service or New Services shall be deemed withdrawn, and Service Provider shall take no further action with respect to either. Upon Customer's issuance of a Notice to Proceed during the Response Period, as described above, Service Provider's proposal shall be deemed accepted by Customer and the terms and conditions thereof (as modified by written mutual agreement of the Parties in negotiations prior to issuance of such Notice to Proceed) shall be deemed to constitute such Out-of-Scope Service or New Services.

3.6.1 Service Provider will not begin performing any Out-of- Scope Service or New Services unless and until the Change has been approved in accordance with the Change Control Procedures (as defined in Section 5.6).

3.6.2 If Changes can be effected or Out-of-Scope Services or New Services performed with the resources available for performance of the Services, there will be no adjustment in Service Provider's Fees (other than through normal operation of charging metrics for additional or reduced consumption of chargeable resources). Service Provider's Fees for Out-of-Scope Services or New Services involving net additional or reduced resources will be at the rates specified in Schedule 5, Fees, unless there is no applicable fee specified for the type of Out-of-Scope Service or New Services requested and the Fees specified cannot reasonably be applied, in which case Service Provider's Fees for Out-of- Scope Services or New Services will be no higher than the fees that Service Provider then offers to its most favored customers.

3.6.3 The Parties will consider in good faith opportunities for gain-sharing with respect to Out-of-Scope Services or New Services.

3.7 Customer Performance of Services. This is a non-exclusive Agreement. Customer has the right to perform itself, over the Initial Term, or retain third parties to perform, any of the Services or the Out-of-Scope Services or New Services. To the extent Customer performs any of the Services or the Out-of-Scope Services or New Services itself, or retains third parties to do so, Service Provider will cooperate with Customer or such third parties as reasonably required to transition such Services to Customer or Customer's retained third parties. Service Provider's obligation to cooperate is subject to any third party agreement to the confidentiality restrictions that this Agreement imposes on Customer, and such cooperation will respect Service Provider's and Customer's commitments to contractual restrictions and obligations imposed by third party suppliers. In the event Customer reduces the Services pursuant to this Section, the Fees will be adjusted in accordance with applicable charging metrics and, if no such metric applies, the Change Control Procedures, to reflect the reduced scope of Services being provided by the Service Provider.

3.8 Business Continuity and Disaster Recovery. Service Provider will provide the business continuity services and disaster recovery services as specified in Schedule 23, Business Continuity and Disaster Recovery Plan, and that are specified in the applicable Service Description and Procedures Manual. In the event of a disaster, personnel ordinarily assigned to the performance of Services for Customer under this Agreement will, at Customer's request, be made available to perform business

continuity and disaster recovery services in cooperation with Customer. Service Provider will be excused from all SLAs impacted by such Customer requested personnel reallocation.

3.9 Excuse from Performance. In addition to the excused performance contemplated under Section 25 (Force Majeure), Service Provider will be excused from failures to achieve the Critical Transition Milestones, perform the Services, meet or exceed the Service Levels in this Agreement to the extent that (i) Customer fails to perform the retained services identified in the Service Description or other provisions of this Agreement and (ii) such failure or other acts or omissions of Customer or its agents (not undertaken at Service Provider's direction or with Service Provider's consent) directly causes Service Provider's failure to perform; provided, however, that Service Provider must (a) give Customer prompt notice of Customer's failure to perform such retained services resulting in such performance failure, (b) use its reasonable efforts to continue to perform despite Customer's failure to perform retained services and (c) use its reasonable efforts to mitigate the adverse consequences of Customer's failure to perform such retained services.

3.10 Additional Services. Other California local governmental bodies may be eligible upon mutual agreement between Customer and Service Provider to participate in this Agreement pursuant to the terms and conditions of the Agreement for the purchase of like services if such bodies are authorized, by law or their governing bodies, to execute such purchases, and if such authorization is allowed by Customer.

4. TRANSITION

4.1 General. Service Provider will perform or cause its Subcontractors to perform (as the case may be) all functions and services set forth in the Transition Plan and as otherwise necessary to accomplish the Transition of the Services from Customer to Service Provider, and will complete the Critical Transition Milestones on or before the dates set forth in Schedule 13 ("Transition Services").

4.1.1 Customer will not incur separate charges for Transition Services, beyond those identified in Schedule 5.

4.1.2 The Transition Services will be performed in accordance with the Transition Plan, in a manner intended to minimize any adverse impact on Customer's business and without causing a material disruption to Customer's business or operations.

4.1.3 Customer will perform or cause its agents and subcontractors (as the case may be) to perform all of its obligations set forth in the Transition Plan in a timely manner that will not prevent or delay the Transition or Service Provider's timely completion of the Critical Transition Milestones. In the event that action or inaction of Customer or any agent or subcontractor (other than action or inaction undertaken at Service Provider's direction or with its consent) prevent or delay Transition or any Transition Milestone, Service Provider's performance will be excused for the period of the delay caused by Customer. In the event that action or inaction of Service Provider or any Service Provider's agents or subcontractors prevents or delays any Transition Milestones or Critical Transition Milestones, Customer shall be entitled to Corrective Assessments, if any, set forth in the Transition Plan.

4.1.4 Service Provider will designate an overall manager for all Transition related activities and Services (the "Transition Manager"). Until the Transition has been completed, such Transition Manager will review with the Customer Contract Executive or designated Transition Manager the status of the Transition Services for which that individual is responsible on a weekly basis.

4.2 Relocation of Service Provider Operations. Any relocation of a material portion of Service Provider's operations related to any Services will be conducted pursuant to a formal, written migration plan for orderly transition and uninterrupted Service prepared by Service Provider and approved by Customer. Any breach of such a migration plan by Service Provider will constitute a breach of this Agreement. All of Service Provider's obligations contained in this Agreement will continue to apply during

and after any such relocation or migration (except to the extent expressly excused at specific times in a migration plan). Relocation of Service Provider's operations to countries other than those where such operations are then performed will be conditioned upon Customer's agreement, in its sole discretion, which may depend upon reductions in applicable fees for Services related to those operations. Without limiting the foregoing, any relocation of Service Provider's operations related to any Services shall require Customer's prior approval.

4.3 Extension of Commencement Date. The following terms will apply to an extension of a Service Commencement Date.

4.3.1 Upon notice from Customer that Customer desires Service Provider to extend a Service Commencement Date by more than thirty (30) days, Service Provider will extend the Transition Schedule for the applicable period of time Customer has requested, and Customer will reimburse Service Provider for any additional verifiable direct costs or expenses reasonably incurred by Service Provider as a result of such delay.

4.3.2 If a Service Commencement Date is extended for more than thirty (30) days as a result of delays caused by Service Provider: (i) Service Provider will reimburse Customer for any verifiable direct costs or expenses incurred by Customer as a result of such delay, including the cost associated with procuring Services from a third party; and (ii) Customer may terminate this Agreement for cause in accordance with the provision 15.4.1 of this Agreement.

4.3.3 If either Party incurs costs in connection with the extension of the Transition Schedule for which the other Party is responsible pursuant to this Section, the Party incurring the costs will be obligated to use all commercially reasonable efforts to minimize such costs.

4.4 Consents. Service Provider will obtain, at Service Provider's expense, Consents required to use Service Provider Third-Party Software and Service Provider Software, as each is defined in Schedule 24. Customer will obtain, at Customer's expense and with administrative assistance from Service Provider, Consents required to use Customer Third-Party Software and Customer Software as each is defined in Schedule 24. Customer will pay any additional charge for Consents obtained to allow Customer to continue to use the Service Provider Third Party Software after termination of this Agreement. Customer will pay such costs unless Schedule 24 specifies that Service Provider will acquire a perpetual use license for Customer. Service Provider will be required to obtain Consents that allow Customer to continue to use Service Provider Third Party Software after the termination of this Agreement only as is specified in Article 16, Intellectual Property Rights. Without limiting the generality of the foregoing, Customer shall have the right to determine when it may be necessary or desirable to acquire a license to a substitute product, at Customer's expense, if Service Provider is unable to obtain Consent on commercially reasonable terms and in a commercially reasonable time. In no event will Service Provider use any Customer Software in the absence of an appropriate Consent.

5. OPERATION

5.1 Service Locations. The Services will be provided to Customer from the Service Locations as specified in Schedule 15, Service Locations, at the locations specified in Schedule 15, and any other location for which Service Provider has received Customer's approval.

5.1.1 [RESERVED].

5.1.2 [RESERVED].

5.1.3 Service Provider will bear any costs of transition occasioned by Service Provider's relocation of Services as a result of changes in Law where the change in location is not addressed in Schedule 15 or otherwise requested by Customer. If any change in Law requires Customer's relocation of Services, Customer will bear any costs of transition occasioned by such relocation.

5.1.4 Any change in the location where the Services are performed during the term of this Agreement must be approved in advance and in writing by Customer in accordance with Section 4.2, above. Customer will not unreasonably withhold or delay consent, but Customer may condition its consent upon reasonable assurances of timely performance without any material disruption or interruption of the Services, such as approval and performance of a mutually agreed migration plan. Customer will have the right to withhold consent if a change in Service Location results in Services being performed from a location outside the United States.

5.1.5 Any relocation of operations undertaken at Service Provider's initiative will be undertaken in accordance with Section 4.2, above, at Service Provider's expense (such as, reimbursement of Customer's reasonable, actual costs related to relocation, payment of any and all taxes attributable to relocation, taxes, or increases in taxes upon the Services, and reimbursement of any additional, continuing costs related to relocation).

5.1.6 In the event that any change has a material increase on the Fees, Customer will not bear or be charged or be responsible for any additional one-time or ongoing expenses or Fees as a result of the relocation of Services. Customer will have the right to terminate this Agreement upon notice to Service Provider, without any obligation to pay any Termination for Convenience Fees or other amounts if the Service Location change has material impact on Fees.

5.2 English Language. All records and invoices will be maintained in and all oral and written communications (including without limitation meetings, telephone calls, reports, notices and conferences) will be conducted exclusively in the English language. Unless otherwise agreed in writing, all Contract Staff, including Key Personnel, will be fluent in the English language (or the language of those with whom they interact), and those who interact with Customer employees, customers and vendors must be readily understandable to those employees.

5.3 Customer Architecture, Policies and Procedures. In providing the Services to Customer, Service Provider must adhere to Customer's information management technical architecture, standards, guidelines, policies and procedures, Customer’s applicable internal controls as they may be modified and communicated in writing to Service Provider by Customer prior to Effective Date provided, however, that if Customer modifies its technical architecture in a manner that requires Service Provider to acquire new hardware, software or other resources that materially increases Service Provider's costs above what had been planned and such is not a scheduled update or upgrade to the existing Software or hardware used to provide the Services, the modification will be considered a Change that is subject to the Change Control Procedure. Except as provided in this Article 5.3 adjustments in Services in accordance with this Section will be deemed to be within the scope of the Services to the same extent and in the same manner as if expressly described in this Agreement.

5.4 Currency of Services, Technology. Service Provider will, without any additional Fee, cause the Services, as approved by Customer, to evolve and to be modified, enhanced, supplemented and replaced as necessary for the Services to keep pace with technological advances and advances in the methods of delivering services. In particular, and without limiting the generality of the preceding sentence, Service Provider's software, tools, utilities, methodologies, processes and other normal procedures for performing Services will be upgraded and enhanced as and when upgraded or enhanced for Service Provider's own business and the support of its customers generally; Service Provider will keep such software, tools, utilities, methodologies, processes and other normal procedures on current supported releases as reasonably determined by Customer; Service Provider will keep material hardware for which Service Provider has financial responsibility, as designated in Schedule 28, Financial Responsibility Matrix, under warranty and/or manufacturer’s service contracts; and Service Provider will refresh hardware for which Service Provider has financial responsibility, as designated in Schedule 28, at reasonable intervals, consistent with good industry practice and as required to achieve agreed performance standards. Third party tools and utilities used to perform Services will be maintained on current, or near-current, supported releases. Adjustments in Services in accordance with this Section will be deemed to be within the scope of the Services to the same extent and in the same manner as if expressly described in this Agreement.

5.5 Procedures Manual. Within ninety (90) days after the Effective Date, with Customer's input and cooperation, Service Provider will prepare a Procedures Manual in the form and scope agreed to by the Parties and will deliver the procedures manual to Customer, for Customer's approval ("Procedures Manual").

5.5.1 The Procedures Manual will contain Service Provider's procedures for performing the Services so that the Services are performed accurately and in a timely manner, and will contain all operations manuals, support plans and user guides necessary and sufficient to document such procedures to Customer's satisfaction. Service Provider will perform the Services in accordance with the Procedures Manual.

5.5.2 Following Customer's review of the Procedures Manual, Service Provider will proactively revise the Procedures Manual on an ongoing basis and will resubmit the Procedures Manual for approval, as reasonably requested by Customer. On at least an annual basis, and at least 30 days prior to each anniversary of the Service Commencement Date, Service Provider will update the Procedures Manual to reflect any Changes in the operations or procedures described.

5.6 Change Control Procedures. Customer or Service Provider may propose Changes. All such Changes will be implemented pursuant to the procedures set forth in Schedule 14 ("Change Control Procedures").

5.6.1 Subject to Article 5.8 routine changes, such as all Changes that do not require material, net additional cost, effort or resources, or that can be accommodated with the resources ordinarily available for performance of the Services without impact to Service Levels, Projects or Deliverables, will not result in any increase or decrease to the Fees. Charges for Changes that do require material, net additional cost, effort or resources, or that cannot be so accommodated, will be determined in accordance with Section 3.6.2, above.

5.6.2 If Service Provider and Customer are not able to agree on (i) the effect of the Change, if any, on the Fees and the manner in which such effect was calculated, (ii) the effect of the Change, if any, on Service Levels and any necessary revisions thereto, or (iii) the anticipated time schedule for implementing the Change, then the issue will be resolved in accordance with the dispute resolution procedure set forth in the Schedule 17, Governance Model, and Article 21 of this Agreement; provided, however, Service Provider will not proceed with any Change while the Parties seek to resolve such disagreement. Service Provider shall not implement any change in its performance of Services that would have a material, adverse effect upon Customer’s use or receipt of the Services, or increase Service Provider’s Fees or Customer’s other costs, without Customer’s approval, which Customer may give or withhold in its sole discretion. Service Provider may make temporary changes in its operations required by an emergency if prior approval is impractical, but in such cases shall promptly document and report such emergency changes to Customer. If Customer agrees that such temporary Change was reasonably required, Customer agrees to reimburse Service Provider for reasonable costs of implementing such temporary Change.

5.6.3 Service Provider will not be required to comply with any such Change request if its compliance will violate applicable Law. Service Provider will promptly inform Customer if it determines it cannot implement the Change mandated by Customer and comply with applicable Law.

5.6.4 Service Provider will not invoice, and Customer will not be liable for, any Change or Out-of-Scope work performed by Service Provider unless a Change has been approved in accordance with the Change Control Procedures. The Fees for such work will be specified in the applicable Change request form.

5.7 [RESERVED].

5.8 Prioritization of Scheduling. Service Provider agrees that Customer will retain final discretion over the priorities in scheduling performance of the Services, such as any Projects, and may

change priorities from time to time via the Governance Processes. If a change in priorities by Customer will adversely affect any Service Level, Service Provider will, if practicable notify Customer's Contract Executive of the expected impact ("Impact Assessment") of the change in priorities. If Customer's Contract Executive approves the change in priorities, and there is a failure to meet a Service Level that Service Provider notified Customer may occur in the Impact Assessment, then the failure to meet the Service Level will be excused to the extent caused by the change in priorities. Customer acknowledges that changes in priorities may affect ongoing performance of Services and Fees and other costs to Customer. Service Provider agrees to cooperate with Customer and use diligent efforts to minimize additional costs, Fees or other adverse effects, and further agrees that Customer may adjust priorities, temporarily relieve Service Provider from Service Level or other obligations or authorize additional staff, Services or other resources in Customer's sole discretion.

6. INDEPENDENT CONTRACTOR

Service Provider and all person(s) employed by or contracted with Service Provider to furnish labor and/or materials under this Agreement are independent contractors and do not act as agent(s) or employee(s) of Customer. Service Provider has full rights to manage its employees in their performance of Services under this Agreement. Service Provider is not authorized to bind Customer to any contracts or other obligations. Neither Party's personnel will be eligible to participate in any of the employee benefits or similar programs of the other Party. Service Provider will inform the Contract Staff that they will not be considered employees of Customer for any purpose, and that Customer will not be liable to any of them as an employer in any amount for any claims or causes of action arising out of or relating to their assignment in connection with this Agreement or release therefrom. Service Provider is responsible for determining, providing and administering all compensation paid and benefits provided to the Contract Staff, and is responsible for withholdings for FICA, federal, state and local income taxes on wages and benefits for the Contract Staff. Service Provider is responsible for the eligibility of the Contract Staff to work in each jurisdiction where they are providing Services to Customer and for reporting to the appropriate federal, state and local agencies all compensation and payment of all applicable taxes arising therefrom. Customer has no authority to supervise, discipline, direct, control or instruct any of Service Provider's personnel.

7. SERVICE PROVIDER STAFF

7.1 Service Provider Contract Executive. Service Provider will appoint the individual specified in Schedule 9 to be the Service Provider Contract Executive. The Service Provider Contract Executive will, from the date of this Agreement serve, on a full-time basis, as Service Provider's primary representative under this Agreement.

7.1.1 Service Provider's appointment of any Service Provider Contract Executive will be subject to Customer's approval.

7.1.2 The Service Provider Contract Executive will (i) serve as Service Provider's single point of accountability for the Services, (ii) have day-to-day authority for facilitating Customer satisfaction and (iii) be authorized to act for and on behalf of Service Provider with respect to all operational matters relating to this Agreement.

7.1.3 [RESERVED].

7.1.4 Service Provider agrees that Customer satisfaction will be a key performance incentive for the compensation of the Service Provider Contract Executive. Customer may provide recommendations to Service Provider regarding the criteria to be used in evaluating the Service Provider Contract Executive's eligibility for incentive-based compensation. Service Provider will (i) consider such recommendations in good faith, (ii) implement such recommendations, to the extent consistent with Service Provider's policies regarding incentive-based compensation, and (iii) notify Customer if Service Provider is not able to implement any such recommendations.

7.2 Key Service Provider Personnel. The individuals specified in Schedule 9 will be the initial Key Service Provider Personnel. All Key Service Provider Personnel will be dedicated to the Customer account on a full-time basis unless otherwise agreed by Customer.

7.2.1 Before assigning any new individual to a Key Service Provider Personnel position, Service Provider will (i) consult with Customer regarding the proposed assignment, (ii) introduce the individuals to appropriate representatives of Customer and provide Customer the opportunity to interview such individual, (iii) subject to applicable Law, provide Customer with any information regarding the individuals that may be reasonably requested by Customer, (iv) agree to Customer's request to conduct a background check on such individuals and (v) obtain Customer's approval for the proposed assignment.

7.2.2 [RESERVED].

7.3 Replacement. Service Provider will replace or reassign the Service Provider Contract Executive and Service Provider Key Personnel only in accordance with this Section.

7.3.1 Service Provider will not replace or reassign any of the Key Service Provider Personnel, without Customer's prior consent, which consent shall not be unreasonably withheld, for twenty-four (24) months from the Effective Date (in the case of those initially assigned), or the date of an individual's first assignment to the Customer account, as applicable, unless Customer consents to such reassignment or replacement or such person (i) voluntarily resigns from Service Provider, (ii) is dismissed by Service Provider for cause, (iii) fails to perform his or her duties and responsibilities pursuant to this Agreement or (iv) dies or is unable to work due to his or her disability.

7.3.2 After the initial twenty-four (24) month period, Service Provider will not reassign any of the Key Service Provider Personnel without prior consultation with Customer and with thirty (30) days prior written notice.

7.3.3 If Customer decides that any of the Key Service Provider Personnel should not continue in that position, then Customer may, in its sole discretion and upon notice to Service Provider, require removal of the Key Service Provider Personnel from the Contract Staff. Service Provider will, as soon as reasonably practicable, replace such person. Customer will generally provide at least two (2) months notification to allow Service Provider time to identify and transition new personnel in the event of a removal request, unless such Key Personnel's continued performance is not acceptable to Customer or Customer reasonably believes that immediate removal is warranted.

7.4 Contract Staff. Service Provider will appoint a sufficient number of individuals to the Contract Staff so that the Services are provided in accordance with the Service Levels and generally accepted industry practices. Only individuals with proper education and experience and with suitable training and qualifications to perform the Services may be appointed to the Contract Staff. Except as otherwise approved by Customer in its sole discretion, Contract Staff working at any Customer Service Location may only provide Services that support Customer's operations and will not, during such time, provide services for other Service Provider customers. Service Provider will notify Customer as soon as reasonably practicable after dismissing or reassigning any member of the Contract Staff whose normal work location is at a Customer Service Location. Service Provider personnel should introduce themselves as Customer team members internally and externally. Service Provider personnel must not introduce themselves as Customer's employees.

Service Provider will inform Customer about the non-availability of Contract Staff adhering to the following schedule: (a) For absences exceeding 10 business days inform no later than three (3) weeks before the expected absence; (b) For absences between 5-10 business days inform no later than two (2) weeks before the expected absence and (c) Promptly inform Customer of any ad-hoc absences. In all cases of absence of Contract Staff Service Provider shall provide that there will be no impact to the Services being delivered to Customer. Customer shall not pay corresponding prorated Fees for vacancies

or absences in excess of agreed schedule of Contract Staff, unless prior agreement has been reached for adequate backfill for such Contract Staff.

7.5 Turnover of Contract Staff. To ensure consistency of service delivery and minimize personnel learning curves, Service Provider agrees to minimize the amount of turnover in its staff assigned to the Customer's account to a maximum of ten percent (10%) per Contract Year.

7.6 Unacceptable Contract Staff. Subject to applicable Laws, Customer may inform Service Provider if Customer determines that any member of the Contract Staff is unacceptable, such as Customer's determination that such individual (i) is not qualified to perform the responsibilities required for the position held by such individual, (ii) is not performing his or her responsibilities to Customer's reasonable satisfaction in accordance with this Agreement, (iii) has violated any term or condition of this Agreement, such as the security obligations or breach or violation of Customer policies, procedures and directives, (iv) does not pass the background check process that may be required or (v) is not performing effectively with Customer, or in a manner consistent with Customer's best interests. Within five (5) days following Customer's request, the Parties will review the matters, and if, after such review, the Parties do not otherwise agree, Service Provider will remove the individual from the Contract Staff. Customer shall have no responsibility for any termination of employment or other disciplinary action that Service Provider or its subcontractors may take in respect of any of their personnel. In urgent cases (incidents involving dishonesty, serious misconduct or danger to others), Customer reserves the right to require the Service Provider to remove, and Service Provider shall immediately remove, the relevant member(s) of the Contract Staff. Service Provider will manage the replacement of such Contract Staff without disrupting Services during the replacement period and training period of new staff. Customer will not be liable for any costs related to adding such replacements to Contract Staff.

7.7 Subcontractors. Service Provider may subcontract the performance of Services only in accordance with this Section.

7.7.1 Prior to subcontracting any of the Services, Service Provider must first notify Customer of the proposed subcontract and Subcontractor and obtain Customer's prior approval, except that Service Provider may, without Customer's prior approval, (i) enter into subcontracts for the third party services or products of the Subcontractors listed in Schedule 18 as pre-approved as of the Effective Date, or (ii) in the ordinary course of business, enter into subcontracts for third party services or products for which total estimated or anticipated value is less than fifty thousand dollars ($50,000) in Services to Customer in any Contract Year; provided, however, that such subcontract does not constitute a material portion of the Services and/or are not exclusively dedicated to Customer. Contract Staff shall not consist of more than 20% of subcontractor personnel unless otherwise approved by Customer.

7.7.2 Any subcontract must contain : (i) terms and conditions at least as protective of Customer and its confidential and proprietary information as the terms and conditions of this Agreement, (ii) the terms in Schedule 12 on Data Protection and Privacy, (iii) Article 14, Compliance and Audit, (iv) waivers of any lien rights, (v) an acknowledgment that Customer will have no liability to Subcontractor for amounts that are owed to Subcontractor arising out of the Services, and (vi) provisions for transfer of the subcontract to Customer or a successor service provider upon expiration or termination of this Agreement. Upon reasonable notice, at the request of Customer, Service Provider will allow Customer to review the non-financial terms of any subcontract for Services to the extent necessary to verify that the subcontract complies with the terms of this Agreement.

7.7.3 Prior to materially amending, modifying or otherwise supplementing any subcontract relating to the Services that requires Customer approval and that affects Customer, Service Provider must notify Customer of the proposed amendment, modification or supplement and must obtain Customer's approval.

7.7.4 No subcontracting will release Service Provider from its responsibility for its obligations under this Agreement. Service Provider will be responsible for the work and activities of any Subcontractor, such as compliance with the terms of this Agreement.

7.7.5 Customer may revoke its approval of any subcontractor whose performance Customer reasonably believes to be deficient, and in such cases Service Provider shall discontinue use of the subcontractor's products and/or services and provide substitutes therefore.

7.7.6 Service Provider will be responsible for all payments to its Subcontractors and will indemnify, defend and hold Customer harmless from and against all Claims by its Subcontractors pursuant to Section 22.1.

8. FACILITIES USE

8.1 Customer Facilities. To the extent specified in an applicable Service Description, Customer will make available to Service Provider furnished space in the Customer Service Location specified in such Service Description for the purpose of allowing Service Provider to perform the Services.

8.2 Relocation of Customer Service Location. If Customer directs Service Provider to relocate from one Customer Service Location to another Customer Service Location, Service Provider will do so; provided, however, that (i) Customer will provide reasonable advance notice to Service Provider of any such relocation, (ii) Customer will (a) provide comparable space and facilities in such relocated Customer Service Location in accordance with the applicable terms of this Agreement, or, at Customer's option, (b) reimburse the reasonable, actual cost of substitute space; and (iii) Customer will reimburse Service Provider for any direct out-of-pocket costs incurred by Service Provider as a result of such relocation that are accompanied by supporting documentation. Prior to the relocation, Service Provider will provide Customer with an Impact Assessment of any such relocation. In the event such move impairs Service Provider's ability to meet Service Levels as Service Provider notified Customer in the Impact Assessment, Service Provider will be relieved from its obligation to meet those Service Levels for a reasonable period of time to the extent impairment is caused by the relocation. Service Provider shall relocate affected operations in an orderly manner, pursuant to a plan approved by Customer, so as to minimize any interruption in affected Services or other adverse effects upon Customer, its business, operations or affairs.

8.3 Service Provider Use of Facilities. Unless obtaining Customer approval to the contrary, Service Provider will: (i) use the space in the Customer Service Location for the sole purpose of providing the Services and otherwise meeting its obligations under this Agreement; (ii) comply with the leases and other agreements applicable to the Customer Service Location; and (iii) comply with all policies and procedures governing access to and use of Customer Service Location, which policies and procedures will be provided to Service Provider prior to its access and use of the Customer Service Location.

8.3.1 Use of such facilities by Service Provider does not constitute leasehold or sub leasehold interest in favor of Service Provider, but is instead a license, revocable by Customer at any time.

8.3.2 Service Provider will use the Customer Service Locations in a reasonably efficient manner. To the extent that Service Provider inappropriately operates the space in a manner that increases facility costs incurred by Customer disproportionate to that reasonably required for Service Provider's provision of Services to Customer, Service Provider will reimburse Customer for such additional costs.

8.3.3 Service Provider will keep the Customer Service Locations in good order, not commit or permit waste or damage to such facilities and not use such facilities for any unlawful purpose.

8.3.4 When the Customer Service Locations are no longer required for performance of the Services, Service Provider will return such locations to Customer in substantially the same condition as when Service Provider began using such locations, ordinary wear and tear excepted.

8.4 Facilities-Related Services. Service Provider will permit Customer and Customer agents to enter into those portions of the Customer Service Locations occupied by Service Provider's staff at any time to perform facilities-related services (such as, for example, repairs to the building). Prior to the facilities-related services, Service Provider will provide Customer with an Impact Assessment of such facilities-related services. In the event such entrance or presence impairs Service Provider's ability to meet one or more Service Levels as notified to Customer in the Impact Assessment, Service Provider will be relieved from its obligation to meet those Service Levels for a reasonable period of time to the extent impairment is caused by the Customer's performance of the facilities-related services.

8.5 Improvements. Service Provider will not make any improvements or changes involving structural, mechanical or electrical alterations to the Customer Service Locations without Customer's approval, which Customer will not unreasonably withhold if Service Provider demonstrates that such improvements or changes are reasonably necessary to provide the Services and to meet Service Provider's other obligations under this Agreement. Approved improvements will become Customer's property, or that of Customer's lessor, if so required under applicable leases. Service Provider shall keep Customer’s property, and that of its lessors, free from mechanic’s, materialmen’s and other liens of every kind and take all reasonable measures that Customer or its lessors may require (such as posting of bonds and obtaining releases of claims of lien).

9. MANAGED AND ASSIGNED AGREEMENTS

9.1 Managed Agreements. Service Provider will manage, administer and maintain the Managed Agreements at no additional cost to Customer. The Managed Agreements are specified in Schedule 8, Managed and Assigned Agreements. Service Provider will provide Customer with reasonable notice of any option, renewal, termination or cancellation dates and fees with respect to the Managed Agreements. Service Provider will not renew, modify, terminate or cancel, or request or grant any consents or waivers under any Managed Agreements without the consent of the appropriate entity or unit of Customer.

9.2 Invoices. Service Provider will (i) receive all Managed Agreement Invoices, (ii) review and correct any errors reasonably known to Service Provider in any such Managed Agreement Invoices in a timely manner and (iii) submit such Managed Agreement Invoices to Customer within two weeks prior to the due date or, if a discount for payment is offered, two weeks prior to the date on which Customer must pay such Managed Agreement Invoice in order to receive a discount.

9.2.1 Customer will be responsible for paying the Managed Agreement Invoices after processing by Service Provider. Customer will be responsible for any late fees in respect of the Managed Agreement Invoices if Service Provider submits the applicable Managed Agreement Invoices to Customer for payment according to the timeline specified above in Section 9.2

9.2.2 If Service Provider fails to submit a Managed Agreement Invoice to Customer for payment in accordance with the preceding sentence, and such failure is due to an act or omission on the part of Service Provider, Service Provider will be responsible for any discount not received, any late fees incurred, or any other adverse action taken by a third party pursuant to the terms of such Managed Agreement with respect to such Managed Agreement Invoice. Without limiting the foregoing, Service Provider shall be responsible for payment of such Managed Agreement Invoices, without reimbursement from Customer, that Service Provider fails to submit to Customer within 60 days of receipt by Service Provider.

9.2.3 Customer will not be responsible to Service Provider for any management, administration or maintenance fees of Service Provider in connection with the Managed Agreement Invoices.

9.3 Assigned Agreements. As of the applicable Service Commencement Date, Service Provider will assume all responsibility for the Assigned Agreements specified in Schedule 8.

9.3.1 Charges relating to Assigned Agreements will be pro- rated as of the relevant Service Commencement Date or the date of assignment, as appropriate. Service Provider will be solely responsible for paying all charges under such Assigned Agreements that may become payable after such date. Service Provider will pay the invoices submitted by third parties in connection with the Assigned Agreements and will be responsible for any late fees incurred with respect to such third party invoices.

9.3.2 Service Provider will consult with Customer prior to taking any action to renew, modify, terminate or cancel, or request or grant any consents or waivers under any Assigned Agreement. Any modification, termination or cancellation fees or charges imposed upon Customer in connection with any modification, termination or cancellation of, or consent or waiver under, the Assigned Agreements will be paid by Service Provider.

9.4 Breach of Agreements. Service Provider will promptly notify Customer of any breach of, misuse or fraud in connection with, any Managed Agreements or Assigned Agreements that Service Provider knows occurred or reasonably should know has occurred. Service Provider will cooperate with Customer to prevent or stay any such breach, misuse or fraud.

9.4.1 Service Provider will pay all amounts due for any penalties, liquidated damages, late charges or other similar charges (such as amounts due to a third party) as a result of (i) Service Provider's non-performance or breach of its obligations under the Assigned Agreements or (ii) Service Provider's breach of its assumed obligations with respect to the Managed Agreements, or (iii) breaches of Managed Agreements attributable to Service Provider's acts or omissions.

9.4.2 Customer will reimburse Service Provider for any penalties, liquidated damages, late charges or other similar charges incurred by Service Provider for any non-performance or breach of Customer's obligations under the Managed and Assigned Agreements that are the result of an act or omission by Customer (excluding acts or omissions undertaken at Service Provider’s direction or with Service Provider’s consent).

9.5 Improved Terms. Service Provider will use its commercially reasonable efforts to:

9.5.1 introduce service levels which reflect industry best practices for services provided under the Managed Agreements and Assigned Agreements, respectively, upon renewal of any such Managed Agreements and Assigned Agreements; and

9.5.2 effect savings, pricing reductions and improved services in all Managed Agreements (other than those agreements exempted from this requirement and identified as such in Schedule 8) at the earliest practicable date by renegotiation and using its purchasing power to obtain discounts, improved services, improved service levels and better overall pricing.

9.5.3 Subject to the terms of third-party agreements, Service Provider shall pass on any group purchasing savings or supplier discounts to Customer and shall not charge any price mark-up for IT asset purchases requested by Customer.

9.6 Replacement of Providers. Service Provider will be entitled upon notification to Customer and consent by Customer, which consent will not be unreasonably withheld, to replace and substitute service providers under Assigned Agreements, either on renewal of such agreements, or prior to renewal upon the service provider's default or other similar reason for early termination of an Assigned Agreement by Service Provider. All contracts with replacement providers shall be freely transferable to Customer. Customer may replace or substitute service providers under Managed Agreements at any time, in its discretion.

10. SERVICE LEVELS

10.1 General. Service Provider will perform the Services at the Service Levels in accordance with Schedule 4.

10.1.1 Service Provider shall maintain the Service Levels set forth in Schedule 4 following Transition.

10.2 [RESERVED].

10.3 [RESERVED].

10.4 Root Cause Analyses. In the event of any failure to provide the Services in accordance with the applicable Service Levels (whether or not excused), Service Provider will within five (5) business days of such failure, or such other time period as may be specified in the applicable Service Levels Schedule or as may be mutually agreed, (i) perform a root-cause analysis to identify the cause of such failure, and (ii) provide Customer with a report detailing the cause of, and procedure for correcting such failure. Upon Customer's approval of such procedure, implement such procedure as per mutually agreed timeframe, and provide Customer with assurance satisfactory to Customer that such failure will not recur following the completion of the implementation of the procedure.

11. PAYMENT TERMS

11.1 Fees. In consideration of Service Provider providing the Services, Customer will pay to Service Provider the Fees as set forth in Schedule 5. The Fees set forth in Schedule 5 define charges for all tools, software, personnel and other resources required to provide Services to Customer. Except as expressly set forth in this Agreement, there will be no other charges or Fees payable by Customer in respect of Service Provider's performance of its obligations under or in connection with this Agreement, other than retained or pass-through costs expressly identified in applicable Schedules, which shall, to the extent possible, identify and estimate all third party costs to be retained by or passed through to Customer. Customer shall not pay any handling charge or administrative charge or markup on any pass-through cost or cost reimbursement. Customer may set-off against the Fees any amounts owed to Customer by Service Provider, as provided below. Further, Customer shall have no obligation to pay or reimburse any Pass-Through or other expense of any kind except to the extent required by the express terms of the Agreement or from time to time agreed in writing by the Parties' authorized representatives. Customer shall not pay for vacancies or absences in excess of agreed schedule of Contract Staff, as identified in Schedule 5, unless prior agreement has been reached for adequate backfill for such Contract Staff.

11.2 Invoicing. No later than the tenth (10th) day of each calendar month during the term of this Agreement, Service Provider will invoice Customer for the Services performed in the prior month.

11.2.1 Unless otherwise specified in Schedule 5, Service Provider will invoice the Fees in United States Dollars.

11.2.2 Each of Service Provider's invoices will (i) set forth (a) any pass-through expenses incurred and billable under the express terms of this Agreement and (b) any discounts, credits or charges, such as Service Credits, Additional Resource Charges and Reduced Resource Credits, charged or issued during the period to which such invoice relates, and (ii) reflect any adjustment to or change in the Fees implemented during the period to which such invoice relates. Service Provider's invoices will be in the format attached as Schedule 26, will describe or be accompanied by all relevant calculations., and allocate Service Provider's charges in a manner consistent with Customer's reasonable chargeback requirements.

11.2.3 All invoices must be presented within one-hundred eighty (180) days after the end of the relevant month or completion of the relevant milestone. Customer will not be obligated

to pay any amount (including any allowable pass-through expense) not invoiced in accordance with this Agreement within such time period.

11.3 Payment. The undisputed Fees will be due and payable to Service Provider within thirty (30) days of receipt of Service Provider's invoice.

11.4 Credits and Refunds. Service Provider will promptly provide credit to Customer on invoices for the previous month's vacancies or absences exceeding agreed schedule of Contract Staff, identified in Schedule 5. Service Provider will promptly credit any payment made to which Service Provider is not entitled under this Agreement and refund to Customer any such payment for which there are not sufficient Additional Resource Charges under the then-current invoice against which to credit the overpayment. If Service Provider receives any refund, credit or other rebate (such as deposits) in connection with any Managed Agreement or Assigned Agreement that is attributable to periods prior to the Effective Date or for which Customer retained financial responsibility after the Effective Date, then Service Provider will promptly (i) notify Customer of such refund, credit or rebate and (ii) pay to Customer the full amount of such refund, credit or rebate in cash. Service Provider will reimburse Customer for all prepaid amounts related to the Services to the extent that Service Provider receives the benefit of any such pre- payment.

11.5 Taxes. Customer shall pay all applicable taxes on Services provided by the Service Provider. Customer is not responsible for any taxes based on the income of Service Provider. In addition, Customer is not responsible for taxes paid by Service Provider relating to employees and resources acquired by Services Provider to provide the Services.

11.6 Disputed Amounts. Customer may reasonably dispute an amount on an invoice and may withhold payment of such disputed amount. In such event, Customer will promptly notify Service Provider in writing of the disputed amount, with an explanation of the reasons therefore. Following notification of a disputed invoice charge, the Parties will use their reasonable endeavors to resolve the disputed amount within fifteen (15) days. If the Parties cannot resolve the disputed amounts within fifteen (15) days, then the matter will be escalated to the representatives of the Parties specified in Article 21 for resolution. Upon resolution, the amount, if any, payable will be paid to Service Provider. If the aggregate amounts withheld or set off exceed twice the average monthly invoiced amount from Service Provider, Customer shall place such amounts in an escrow account ("Escrow Account") in an FDIC-insured bank chosen by Customer, pending resolution of the dispute by mutual agreement or pursuant to Article 21. Amounts held in escrow (with interest received, if any) shall be released upon joint instruction of the Parties following any settlement or other mutual agreement, or as determined by final adjudication of the dispute (less, in either case, reasonable, applicable escrow costs, which shall be equally divided).

11.7 Setoff and Withholding. Except as set forth in this Section 11, Customer will not withhold payment of any undisputed amounts. If Service Provider fails to pay when due any amount due under the Assigned Agreements for which Customer remains liable, then upon written request, the Parties' Contract Executives shall immediately consult concerning the matter and make reasonable efforts to resolve the matter within thirty (30) days after the request. If the Parties are unable to resolve the matter, then Customer may pay the obligation and withhold or set off the amount reasonably believed to be owed from Service Provider's invoices.

11.8 Equitable Adjustment. In the event of an increase or decrease of fifteen percent (15%) or more in the total fees, total consumption of all chargeable resources, and total volume of Services that the parties anticipated would otherwise be the case during any three month period that this Agreement is in effect, then either Party may request, via the Change Control Procedure, an equitable adjustment of relevant charges to account for (i) net increases or decreases in costs of performance, (ii) costs of acquisitions or dispositions of assets, (iii) one time costs associated with effecting changes, and (iv) a reasonable allowance for profit. Termination for Convenience Fees shall also be adjusted to reflect changes in scope, investments in and dispositions of assets, and other related changes in un-amortized costs to be recovered thereby in the event of termination.

12. MOST FAVORED CUSTOMER

Service Provider represents, warrants and covenants that at all times during the Term, the Fees are at least as favorable to Customer as the most favorable prices then offered or provided by Service Provider to any other commercial or government customer for services substantially similar to the Services being provided to Customer under this Agreement. For these purposes, "substantially similar" will be understood to mean taking into account the geography served, service levels, service locations, in-scope processes, volumes, systems used, industry served, and other material transaction elements. If Service Provider offers or provides services to any other commercial or government customer that are substantially similar to the Services provided to Customer for prices lower than the prices being charged to Customer, then Customer's price for the Services will be automatically reduced to be commensurate with such more favorable prices as of the date such more favorable price is provided to such other commercial or government customer. In the event of a Change, the pricing for any new services or work will be as low as that granted by Service Provider to any substantially similar customer for such services or work bearing in mind all of the relevant circumstances in which such services or work are provided.

13. BENCHMARKING

In accordance with Schedule 6, Service Provider shall be subject to a continuing benchmarking program of the Services, taking into consideration adjustments for reasonably comparable elements of the Services, that shall enable Customer to compare the Fees and Service Levels set forth in this Agreement with, and ensure that said Fees and Service Levels are similar in price and quality to, similarly bundled service offerings (accounting in the aggregate for the scope, service levels, duration, and volume of business) of other IT service providers.

14. COMPLIANCE AND AUDIT

14.1 Compliance with Laws. Each Party will obtain and maintain all Authorizations applicable to such Party at its own expense. Service Provider will comply with all Laws, and Regulatory Requirements, applicable to Service Provider's delivery of the Services and its performance of this Agreement, such as those imposed on Customer but applicable to activities or tasks that Service Provider undertakes pursuant to this Agreement. Customer will comply with all Laws applicable to Customer's receipt of Services and its performance of this Agreement. In particular, and without limiting the generality of the foregoing, (i) Service Provider will comply with applicable privacy laws in all relevant jurisdictions, (ii) enter into model processor or other, similar agreements concerning transfers of personally identifiable data within and without the member states of the European Union, when reasonably required by Customer, and cause its subcontractors to do so.

14.2 Changes in Laws. Service Provider will be responsible for identifying and becoming familiar with any changes in Laws that are related to Service Provider's delivery or performance of the Services. If Service Provider becomes aware of changes in Laws that impact Customer’s use or receipt of the Services, Service Provider will reasonably inform Customer.

14.2.1 Service Provider will promptly notify Customer of any such changes in Laws and will advise Customer of what actions, if any, Customer must take and when those actions must be taken related to the Services to remain compliant with such Laws, except for changes in Laws directed at the government sector, in which event Customer will notify Service Provider of changes to such Laws that affect Service Provider's delivery or performance of the Services.

14.2.2 Service Provider and Customer will work together to identify the impact of such changes on how Customer uses, and Service Provider delivers, the Services.

14.2.3 Service Provider will perform the Services at no additional charge to Customer and will bear the costs associated with (i) regulatory changes affecting its business as a provider of the Services, (ii) changes in Service Provider’s standards, methods, practices and procedures for customers generally, (iii) changes in Laws, other than changes in Laws directed at the government sector and (iv) regulatory changes affecting its customers generally, , unless such

changes and Service Provider's compliance with such changes will result in material cost increases to Service Provider above and beyond those necessary to effect changes affecting Service Provider's other customers and operations generally. Costs affecting Customer's receipt of the Services specific to Customer's unique compliance measures will be determined and compensated in accordance with the Change Control Procedures.

14.2.4 If a change in Laws prevents Service Provider from performing its obligations under this Agreement, Service Provider will, if practicable, develop and, upon Customer's approval, implement a suitable workaround until such time as Service Provider can perform its obligations under this Agreement in compliance with Laws without such workaround.

14.2.5 [RESERVED].

14.3 Unlawful Payments. Service Provider has not and will not directly or indirectly through a third-party intermediary pay or provide, or offer to pay or provide, any monies or other items of value (for example, gifts, meals, contracts, entertainment, employment, hospitalities, and sponsorships that are not permitted by Service Provider) to (i) an officer or employee of a governmental department, agency, instrumentality (such as a government-owned commercial enterprise) or public international organization, or any person acting on behalf of any such entity; or (ii) any political party or official thereof or any candidate for political office, in order to obtain, retain or direct business to any person.

14.4 Ethics Policies. Service Provider will comply, and cause its officers, directors, employees, agents and subcontractors to comply, with ethical standards and corporate social responsibility policies as specified herein. Service Provider shall read and execute Schedule 30.

14.5 Service Provider Internal Audits. Service Provider will, upon request, make available to Customer a summary report of the results and a summary of pertinent supporting information of any internal or external review or audit conducted by Service Provider and its internal and external auditors, relating to Service Provider's operating practices and procedures to the extent relevant to the Services, such as Schedule 10, Security Protocol. Customer acknowledges that Service Provider's audits, reviews, audit results and other related information are Confidential Information hereunder.

14.6 [RESERVED].

14.7 Audit. Upon thirty (30) days' prior notice from Customer, unless shorter notice is required by exigent circumstances, and subject to the confidentiality obligations in Article 18, Service Provider will provide, and will cause its Subcontractors to provide, Customer or any Customer representative (other than a Service Provider Competitor), with access to such facilities, records and supporting documentation as may be reasonably requested by Customer in order to audit Service Provider's compliance with its obligations under this Agreement, such as those pertaining to Fees, Service Levels, the Security Protocol the Customer Controls and any applicable Authorization, Consent, Assigned Agreement, Managed Agreement or ethics policies. Audits shall be conducted in a manner that minimizes any disruption of Service Provider's performance of Services and other normal operations.

14.7.1 Service Provider will, and will cause its Subcontractors to, (i) assist Customer and its designees in the performance of the audits described in this Section or (ii) cooperate fully with Customer and its designees in the performance of the audits described in this Section. Upon Customer's request, Service Provider will provide a reasonable level of resources to support the performance of the audits described in this Section, at no additional cost to Customer. Service Provider's obligations to provide any such support shall not impede Service Provider's ability to meet its obligations under this Agreement or Service Provider's normal business operations. Customer, in its sole discretion and at its expense, may perform the audits described in this Section through its internal and/or external auditors.

14.7.2 If an audit of Fees charged discloses that Service Provider has overcharged Customer, Customer will notify Service Provider of the amount of such overcharge and Service Provider will promptly pay to Customer the amount of the overcharge, plus Interest calculated (at

the then Prime Rate) from the date of receipt by Service Provider of the overcharged amount until the date of repayment to Customer. If such audit reveals any other deficiencies in Service Provider's performance of its obligations under this Agreement, such as any Schedules, Service Provider will promptly take steps to rectify all such deficiencies. At Service Provider's request, Customer will make the audit report available to Service Provider and provide Service Provider an opportunity to explain any apparent discrepancies. If the audit of Fees charged discloses that Service Provider has undercharged Customer, Customer will promptly pay to Service Provider the amount of the undercharge without interest.

14.7.3 If, as and when regulatory authorities with jurisdiction over Customer so request, Service Provider will cooperate with regulatory agencies, their auditors and examiners, in the same manner contemplated by this Section for audits conducted by Customer.

14.7.4 Service Provider shall submit to Customer, an acceptable plan to cure any such breaches and process/system weakness within thirty (30) days (unless a shorter period is required by exigent circumstances) and thereafter diligently complete the cure within the said period.

14.7.5 Customer, its auditors and other representatives shall observe Service Provider's reasonable confidentiality and security arrangements. Service Provider Competitors shall not be engaged to audit Service Provider.

14.8 Control Rules. Without limiting the generality of the foregoing and subject to this Section 14.8 and the confidentiality provisions of this Agreement, Service Provider will provide, or cause its auditor to provide, Customer and its internal and external auditors with all descriptions of controls, tests of controls, audit reports and any other information that Customer or its auditor deem appropriate or necessary to enable Customer and its auditor to fulfill their legal obligations under the Securities Act of 1933; the Securities Exchange Act of 1934; the Sarbanes Oxley Act of 2002; related rules and regulations of the Securities and Exchange Commission, and Regulation S-X thereto; the rules, regulations and listing standards of the New York Stock Exchange; the rules, regulations and standards of the Public Company Accounting Oversight Board; and any other financial control or disclosure requirement imposed by law on public companies, as such legal requirements may be amended or modified from time to time (the "Control Rules").

14.8.1 Service Provider will assist Customer to comply with the Control Rules by, (i) placing in operation as of the Commencement Date and thereafter maintaining the internal controls and procedures related to the Services and described in Schedule 27 (the "Customer Controls"); (ii) documenting (using Microsoft Office or any other documentation product) such internal controls and procedures; (iii) cooperating with Customer and its auditor in connection with testing the effectiveness of such controls and procedures; (iv) implementing the additional or alternative controls that Customer has in place or from time to time requires (or such superior controls as Service Provider may from time to time recommend, and Customer may approve in its sole discretion); and (v) correcting any material weakness or significant deficiency as defined by the Control Rules or any other deficiency that would prevent Customer from complying with the Control Rules.

14.8.2 On a Customer fiscal year basis [July 1st – June 30th] ("Fiscal Year"), Service Provider and all applicable Subcontractors, at Customer's expense, shall require Service Provider's auditors to conduct an examination of the controls placed in operation, with respect to Provider's performance of the specific Services for Customer, and a test of operating effectiveness of such controls, as defined by (i) Statement on Standards for Attestation Engagements (SSAE) No. 16. No.1 Report on Controls at a Service Organization Relevant to User Entities' Internal Control over Financial Reporting ("SOC 1") and (ii) AICPA Attest Engagements AT Section 101 (AT101) and Trust Services Principles 100 (TSP100) ("SOC 2") (i.e., the successor standard to SAS 70) and issue a report for each thereon (a "Type 2 Report") for the applicable Fiscal Year. Notwithstanding the foregoing, should Service Provider, as part of

its normal course of operations, produce a SSAE No. 16, Type 2 Report on an annual basis for its own facilities, Provider shall provide a copy of such report, at no additional cost, to Customer.

14.8.3 The Type 2 Report should include a period of testing no less than six (6) months, a portion of which shall occur during the first month of the second half of Customer's Fiscal Year. The Type 2 Report will be issued semi-annually for the periods ending [December 31st] and [June 30th]. Service Provider shall submit the proposed control objectives to Customer for approval prior to conducting the audit. Service Provider and all applicable Subcontractors shall deliver to Customer a copy of the Type 2 Report within six (6) weeks after conducting the applicable SSAE assessment for a Fiscal Year (but in no event later than December 15th within the Fiscal Year for which the audit was conducted) and Service Provider shall prepare and implement a corrective action plan to correct any deficiencies or resolve any problems identified in such report.

14.8.4 Service Provider shall address any audit control issues or weaknesses identified in any Type 2 Report, at no cost to Customer. If specific audit recommendations are not implemented by Service Provider, then Service Provider should implement such alternative steps as are reasonably satisfactory to Customer for the purposes of minimizing or eliminating the risks identified in any such Type 2 Report. If requested, Service Provider shall have its auditor provide a representation letter stating that no other control deficiencies have occurred since the delivery of the Type 2 Report.. Costs specific to Customer's unique compliance measures will be determined and compensated in accordance with the Change Control Procedures.

14.8.5 Service Provider shall address any audit control issues or weaknesses identified in any Type 2 Report, at no cost to Customer. If specific audit recommendations are not implemented by Service Provider, then Service Provider should implement such alternative steps as are reasonably satisfactory to Customer for the purposes of minimizing or eliminating the risks identified in any such Type 2 Report. If requested, Service Provider shall have its auditor provide a representation letter stating that no other control deficiencies have occurred since the delivery of the Type 2 Report.

14.9 Records. Service Provider will maintain and provide access, upon Customer's request, to those records, documents and other information relating to this Agreement and the provision of the Services for five years from expiration or termination of this Agreement. At any time after expiration or termination of this Agreement, Service Provider may retire its retention obligation under this Section 14.9 by providing a copy of such documents and records to Customer in a mutually agreed format. Upon notice from Customer, Service Provider will suspend any document destruction policy for any period of time reasonably requested by Customer.

15. TERM AND TERMINATION

15.1 Initial Term. The term of this Agreement will commence on the Effective Date and will be in effect for a period of forty-eight (48) months from the Effective Date, subject to Section 15.9, unless this Agreement is (i) sooner terminated in accordance with this Article 15 or (ii) extended in accordance with its terms or by mutually agreed amendment.

15.2 RESERVED].

15.3 Renewal. At the Customer's option, this Agreement may be renewed or extended for four (4) additional one (1) year periods. In the event the Customer desires to renew or extend the Agreement, Customer shall deliver written notice to Service Provider of such renewal along with any requested modifications of the Agreement at least ninety (90) days before expiration of the then-current Term. Customer may allow this Agreement to expire by giving notice no later than ninety (90) days prior to the end of the then-current Term that it does not wish to renew this Agreement. Renewal will be at the then-current Service Levels and will be subject to Fees as specified in Schedule 5.

15.4 Termination by Customer. Customer may terminate this Agreement, in whole or in part, in accordance with the following:

15.4.1 **For Convenience**. Customer shall have the right to terminate for its convenience, at any time and for any reason or no reason: (a) the Term of this Agreement with regard to the Services, or (b) any portion of the Services (e.g., a Service Tower or subcomponent), then being provided by Service Provider. Any such termination shall be effected by Customer sending to Service Provider a written notice of termination specifying the extent of the Services being terminated and the intended date (the "Termination Date") upon which, at 11:59 p.m., such termination shall be effective ("Termination Notice"). The Termination Date specified in any such Termination Notice sent by Customer pursuant to this Section 15.4.1 shall be at least one hundred twenty (120) days after the date of such Termination Notice. In the event that Customer terminates or ends the Term of this Agreement or any portion of the Services for its convenience pursuant to this Section, Customer shall pay Service Provider the applicable Termination Fee set forth in Schedule 5. Notwithstanding the foregoing, Termination Fees shall be proportional and pro-rated to the scope of the Services being terminated. For clarity, Termination Fees shall be structured as a downward sliding scale such that the amount of the fee decreases over time, reflecting the Service Provider's amortization or depreciation of sunk cost investment to provide the Services. Furthermore, Termination Fees shall in no event include any lost profits, and Service Provider shall limit such fees to sunk, non-recoverable investment costs but shall also mitigate non-amortizable portion of such investment costs. Customer shall not be responsible for any additional Termination Fees or other actual non-amortized costs except to the extent that the Parties have mutually agreed to (i) adjust or change the scope of Services, (ii) amend the scope of applicable Termination Fees or other actual non-amortized costs, and (iii) execute an amendment to this Agreement or change order in accordance with the process outlined in this Agreement.

15.4.2 **For Change in Control**. In the event of a change of control of Service Provider resulting from a single transaction or a series of related transactions, Customer shall have the right to terminate: (a) the Term of this Agreement with regard to the Services, or (b) any portion the Services (e.g., a Tower or subcomponent), then being provided by Service Provider by sending to Service Provider a Termination Notice at least thirty (30) days before the Termination Date specified therein. Solely for purposes of this Section: (i) "control" means the legal, beneficial, or equitable ownership, direct or indirect, of more than fifty percent (50%) of the aggregate of all voting or equity interests in Service Provider; and (ii) a "change in control" shall be deemed to have occurred whenever, as a result of a single transaction or a series of related transactions, a Person (or a group of Persons acting in concert) that had not previously had control of Service Provider obtains control of Service Provider, in accordance with clause (i) of this Section. No Termination Fee shall be payable by Customer to Service Provider for Termination based on change in control.

15.4.3 **For Default**. Notwithstanding anything to the contrary, Customer shall have the right to terminate: (a) the Term of this Agreement with regard to the Services, or (b) any portion the Services (e.g., a Service Tower or subcomponent), then being provided by Service Provider by delivery of a Termination Notice to Service Provider, if Service Provider commits a Default under this Agreement. In the event of any such termination by Customer for Default, Service Provider shall nevertheless perform its Termination Assistance obligations under this Agreement until they are fulfilled and any initiative reasonably requested by Customer for up to one (1) year after the effective date of such termination. Any such termination shall not constitute Customer's exclusive remedy for such Default, nor shall such a termination result in Customer being deemed to have waived any of its rights accruing hereunder prior to such Default. If Customer terminates the Term or any portion of the Services as a result of a claimed Default by Service Provider pursuant to the terms of this Section, and Service Provider does not agree that a Default was committed, then Service Provider shall have the right to avail itself of all remedies available to it at law or in equity. In the event that it is subsequently and finally determined by a court of competent jurisdiction, or otherwise mutually agreed by the Parties in writing, that the circumstances claimed by Customer to constitute a Default by Service Provider, and that formed the basis of a

termination of the Term of this Agreement or any portion of the Services by Customer pursuant to this Section, did not in fact constitute a Default, then the Term of this Agreement, or applicable portion of the Services, shall be deemed to have been terminated by Customer for its convenience, pursuant to Section 15.4.1, as of the Termination Date specified by Customer in the Termination Notice originally delivered with respect to such termination, and the provisions of Section 15.4.1 shall thereafter in all respects govern such termination. In the event Customer exercises its rights as set forth in this Section, no Termination Fee shall be payable by Customer to Service Provider.

15.4.4 **Force Majeure**. By not less than ten (10) days notice to Service Provider, and without paying any termination charges, if (i) a Force Majeure Event is either incurable or has continued for at least ten (10) days that renders impracticable the performance of the Services (or any material portion of the Services) by Service Provider substantially as contemplated hereby or (ii) Service Provider fails to provide the disaster recovery or business continuity services as set forth in Schedule 23, unless such disaster recovery obligations were themselves prevented by a force majeure event); or

15.4.5 **Availability of Funds**. Any payment obligation of Customer created by this Agreement is conditioned upon the availability of Customer funds which are appropriated or allocated for the payment of such payment obligations; provided, however, that Customer agrees that it will request such funds each year during the Term. If such funds are not allocated and available, this Agreement may be terminated by Customer at the end of the period for which funds are available. No penalty shall accrue to Customer in the event this provision is exercised, and Customer shall not be obligated or liable for any future Fees due for any Services as a result of termination under this Section 15.4.5. Customer will promptly notify Service Provider if it appears reasonably likely that funds will not be appropriated or allocated. Notwithstanding any other provision of this Agreement to the contrary, Service Provider shall, immediately upon termination by Customer for non-appropriation, be released from any obligation to provide any further Services pursuant to this Agreement. Notwithstanding that Section 15.4 permits Customer to terminate the Agreement in whole or in part the Parties understand and agree that, with respect to this Section 15.4.5, that Customer may only terminate the Agreement in whole.

15.5 Termination by Service Provider. Service Provider may terminate this Agreement solely if: (a) Customer (or Affiliates) has failed to make payments due under Section 11; (b) the aggregate total of such payments exceeds five million Dollars ($5,000,000) (c) such payment is not subject to a good faith dispute, (d) no earlier than (60) calendar days after the payment's due date Service Provider gives written notice of its intent to terminate; and (e) no less than thirty (30) additional calendar days pass with such payment not having been made.

15.6 Continued Performance. During any period commencing upon notice of termination and continuing until the effective date of termination specified in any such notice, Service Provider will perform the Services in accordance with terms and conditions and performance standards in effect as of the date on which notice of termination is given. If this Agreement is terminated by Service Provider for Customers failure to make undisputed payments, this obligation will be contingent upon Customer's payment in advance each month for the Services. In addition, upon Customer's request, Service Provider will provide to Customer such information and other cooperation as may be reasonably necessary for (i) Customer and/or its outside advisers to prepare requests for proposals or other, similar, documentation related to selection of a successor to Service Provider and (ii) a third party to prepare a reasonably informed, non-qualified offer to perform similar services. The types of information and of cooperation to be provided by Service Provider will be at least as comprehensive as those initially provided by Customer to Service Provider prior to the Effective Date. Service Provider will not be required to produce information concerning its costs (other than any costs from time to time reimbursed by Customer). In the event Customer terminates this Agreement under Section 15.4.1, then notwithstanding the restrictions contained in Section 27, Customer may solicit and hire Service Provider Key Personnel that have provided Services at a Customer location during the term of the Agreement. If Customer terminates this Agreement under Section 15.4.5, then Service Provider will make its Key Personnel available to

Customer, if requested, on a full time basis, for up to six (6) months after the effective date of termination, at the rates set forth in Schedule 5.

15.7 Termination Assistance. In connection with expiration or any termination of this Agreement, the Parties will, commencing promptly after the giving of any notice of termination or at least one hundred eighty (180) days prior to expiration of this Agreement, jointly develop a plan, in accordance with Schedule 16, Termination Assistance, to effect the orderly transition to Customer or its designee from Service Provider the Services then being performed or managed by Service Provider. Such plan will be completed by the Parties within thirty (30) days and will set forth the tasks and actions to be performed by Service Provider and Customer (as set forth in Schedule 16), the time for completing such tasks and actions, and the criteria for declaring the transition completed. The Parties and their employees and agents will cooperate in good faith to execute such plan and each Party will perform those tasks and actions assigned to it in such plan.

15.8 Phased or Partial Termination. Cessation of particular Services may be scheduled in phases by Service Tower via the Change Control Procedure in order to accommodate Customer's business needs, Fees will be reduced proportionally as such Services are phased out and discontinued. If a Service Tower is terminated Termination for Convince Fees identified in Schedule 5 will apply. In the event of a partial termination, Service Provider will provide Termination Assistance related to the affected Services. To the extent that Customer provides Service Provider with not less than thirty (30)days prior notice of such phased or partial termination, the scope of particular Services (such as affected Fees and Service Levels) will be equitably adjusted to the extent necessary to allow for operational dependencies, and phased reduction of Service (or introduction of new service from Service Provider or other sources) all in order to assure orderly, continuous operations with consistent quality of service. In addition, Customer may, one time only per Service Tower, upon sixty (60) days' prior notice, extend the termination date for the Agreement with respect to a Service Tower(s) or all of the Services for up to one hundred eighty (180) additional days.

15.9 Extension of Services. At Customer's request, Service Provider will provide to Customer, for up to twelve (12) months after the expiration date of the Term, Renewal Term, or, if applicable, the effective date of termination, any or all of the Services being performed by Service Provider prior to such date, subject to the Fees set forth in Schedule 5 ("Extension Term"). After any such Extension Term (post Extension Term), Service Provider may upon mutual agreement, provide such support and service related to termination and transition as Customer may reasonably request at its then-current standard rates. This Agreement will continue to govern the performance of all such Services during such post Extension Term period, except that (i) the charges for such Services will be at the Service Providers then-current standard rates, and (ii) the charge for any Termination Assistance not part of the Services will be Service Provider's then-current standard rates.

15.10 Specific Performance. Service Provider acknowledges that, if it were to breach, or threaten to breach, its obligation to provide Customer with Termination Assistance, then (i) Customer may be irreparably harmed, (ii) money damages may not be an adequate remedy, and (iii) continuing performance of Termination Assistance, other Services and the Parties' other respective obligations would best preserve the status quo pending resolution of any disputes then pending. Accordingly, Customer may seek to enforce Service Provider's obligation to provide Termination Assistance by a preliminary or permanent mandatory injunction, decree of specific performance or other appropriate equitable remedy. Service Provider irrevocably waives any requirement that Customer post any bond or undertaking, or demonstrate irreparable harm or the inadequacy of money damages.

15.11 Survival. The provisions of Article 1 (Interpretation), Article 14 (Compliance and Audit), Article 15 (Term and Termination), Article 16 (Intellectual Property), Article 17 and Schedule 12 (Customer Data), Article 18 and Schedule 10 (Security and Confidentiality), Article 21 (Governance), Article 22 (Indemnification), Article 23 (Damages), Article 26 (Notices), Article 27 (Non-Solicitation), Article 29 (Severability), Article 31 (Publicity), Article 32 (Governing Law) and Article 36 (No Third Party Beneficiaries) will survive termination or expiration of this Agreement.

16. INTELLECTUAL PROPERTY RIGHTS

16.1 Customer Software and Materials. Neither Service Provider nor any Subcontractor shall have any ownership interest in any Customer Software, Customer Materials or other intellectual property that Customer provides to Service Provider, discloses to Service Provider or allows Service Provider to Use in any way. Subject to Customer obtaining all applicable Consents and to any restrictions contemplated in such Consents (such as payment of applicable fees), Customer grants to Service Provider a limited, non-exclusive and non-transferable right to Use the Customer Software and Customer Materials, directly or through permitted Subcontractors, solely in and for performing the Services pursuant to this Agreement and to the extent permitted under any applicable Third Party Agreements.

16.2 Rights in Deliverables. The Service Descriptions or Statements of Work will specify whether Service Provider has "No Rights," "Limited Rights" or "Full Rights" in the Deliverables. If a Service Description or statement of work does not specify whether Service Provider will have "No Rights," "Limited Rights" or "Full Rights" in the particular Deliverable, then Service Provider will have No Rights in such Deliverable. Unless otherwise expressly provided in a Statement of Work, Service Provider will be solely responsible for (i) obtaining any Consent that may be required to exercise its rights in the Deliverables and (ii) complying with any applicable Third Party Agreement. Service Provider shall also cause all of its employees and Subcontractors engaged in the development of any Deliverables to enter into appropriate agreements with Service Provider assigning and releasing to Service Provider any intellectual property rights they may otherwise assert in any work in any medium created or modified in the course of performing Services.

16.2.1 Service Provider will create the No Rights Deliverables as "works made for hire" or "commissioned works" owned by Customer. To the extent that any No Rights Deliverable is not a "work made for hire" or "commissioned work" owned by Customer, Service Provider hereby irrevocably assigns, and agrees to assign, and will cause Subcontractors to assign, and agree to assign, to Customer without further consideration all of its and their right, title and interest in and to such No Rights Deliverable (but in no event with respect to Service Provider Software or Service Provider Materials identified therein), and to cause its employees and those of its Subcontractors engaged in the preparation of the No Rights Deliverable to waive and agree not to assert any moral rights or reversionary rights. If and to the extent such waivers are deemed invalid, Service Provider will, and will cause its employees and those of its Subcontractors engaged in the preparation of the No Rights Deliverable, to grant to Customer the exclusive, perpetual, irrevocable, worldwide and royalty-free right to use, modify and distribute such items without any requirement of attribution or prior consent. Customer grants to Service Provider, during the term of this Agreement, a limited, non- exclusive and non-transferable right to Use the No Rights Deliverable, directly or through permitted Subcontractors, solely in and for providing the Services to Customer.

16.2.2 Service Provider will create the Limited Rights Deliverables as "works made for hire" or "commissioned works" owned by Customer. To the extent that any Limited Rights Deliverable is not a "work made for hire" or "commissioned work" owned by Customer, Service Provider hereby irrevocably assigns, and agrees to assign, and will cause Subcontractors to assign, and agree to assign, to Customer without further consideration all of its and their right, title and interest in and to such Limited Rights Deliverable, and to cause its employees and those of its Subcontractors engaged in the preparation of the Limited Rights Deliverable to waive and agree not to assert any moral rights or reversionary rights. If and to the extent such waivers are deemed invalid, Service Provider will, and will cause its employees and those of its Subcontractors engaged in the preparation of the No Rights Deliverable, to grant to Customer the exclusive, perpetual, irrevocable, worldwide and royalty-free right to use, modify and distribute such items without any requirement of attribution or prior consent.

16.2.3 Subject to any restrictions specified in the applicable Service Description or statement of work, Service Provider grants to Customer a perpetual, irrevocable, paid-up, royalty-free, worldwide, non- exclusive, sub-licensable but otherwise non-transferable (except to a successor) right to Use the Full Rights Deliverables in connection with its own business; provided,

however, that Customer (or its successor) may sub-license any such Full Rights Deliverable to unrelated third parties only for the purpose of providing services to Customer, its Affiliates or their successors.

16.3 Service Provider Software and Materials. Customer shall have no ownership rights in any Service Provider Owned Software and Service Provider Materials that Service Provider provides to Customer, discloses to Customer or allows Customer to Use in any way, including without limitation any such materials incorporated or embedded in any Deliverable, and the assignment of rights contemplated under this Section 16 shall not apply to Service Provider Software or Service Provider Material.

16.3.1 Unless otherwise specified in Schedule 22 or the applicable Service Description, Service Provider grants to Customer a perpetual, irrevocable, paid-up, royalty-free, worldwide, non-exclusive, sub-licensable as provided for below within this section but otherwise non-transferable (except to a successor) right to Use the Service Provider Owned Software and Service Provider Materials that may be incorporated or embedded in any Deliverable in connection with Customer's own business; provided, however, that Customer (or its successor) may sub-license any such work to unrelated third parties only for the purpose of providing services to Customer, its Affiliates or their successors.

16.3.2 The parties hereto understand and agree that, notwithstanding any provision to the contrary contained in this Agreement, all c-RIM and custom c-RIM technologies and their component parts are the sole Intellectual Properties of Unisys or the software vendors of such c-RIM components and are considered to be the confidential and proprietary property of Unisys. Subject to Termination Assistance, upon termination of the Agreement, c-RIM technologies will be removed from the Customer environment. No licenses for c-RIM technologies & software will be provided beyond the Term of the Agreement.

16.4 Commissioned Work. Neither Service Provider nor any of its Subcontractors (or any of its or their employees) shall have any ownership interest in Commissioned Work , other than Service Provider's continuing rights in and to any Service Provider Materials that may be incorporated or embedded in such Commissioned Work. All Commissioned Works will be considered "works made for hire" or "commissioned works" owned by Customer and, to the extent that any such Commissioned Work may not constitute a "work made for hire" or "commissioned work" owned by Customer, Service Provider hereby irrevocably assigns, and agrees to assign, and will cause Subcontractors to assign, and agree to assign, to Customer without further consideration all of its and their right, title and interest in and to the Commissioned Works, and to cause its employees and those of its Subcontractors engaged in the preparation of the Commissioned Work to waive and agree not to assert any moral rights or reversionary rights excluding any pre-existing Service Provider Materials incorporated or embodied in such Commissioned Work. Service Provider grants to Customer a perpetual, irrevocable, paid-up, royalty-free, worldwide, non-exclusive, sub-licensable and transferable right to Use any such pre-existing Service Provider Materials as part of the Commissioned Work; provided, however, such license shall not extend to separating such pre-existing Service Provider Materials from the Commissioned Work to develop any stand alone product for marketing to third parties.

16.5 Service Provider Responsibilities. Service Provider covenants that all Software Deliverables will consist of source code and documentation sufficient to allow a reasonably knowledgeable and experienced programmer to compile, maintain and support the software. Customer may make such filings and registrations as it deems advisable to obtain patent, copyright or other protection for Full Rights and Limited Rights Deliverables, Commissioned Works and other Customer intellectual property. Service Provider will provide such assurances, take such action, and execute such further documents and instruments as Customer may reasonably request (at no material cost to Service Provider) in order to carry out the purposes of this Article and, in particular, to register or otherwise secure patent, copyright, trademark, service mark or other intellectual property protection in all countries for Customer's intellectual property.

17. CUSTOMER DATA AND INTANGIBLE PROPERTY

17.1 Customer Data. Neither Service Provider nor any Subcontractor will have any right, title or interest in or to any Customer Data.

17.1.1 Without Customer's approval, Customer Data will not be (i) used by Service Provider or Subcontractors other than in connection with providing the Services or otherwise complying with Service Provider's obligations under this Agreement, (ii) disclosed, sold, assigned, leased or otherwise provided to third parties by Service Provider or Subcontractors or (iii) commercially exploited by or on behalf of Service Provider or Subcontractors.

17.1.2 [RESERVED].

17.1.3 Service Provider irrevocably assigns, transfers and conveys, and will cause Subcontractors to assign, transfer and convey, to Customer, without further consideration, any right, title and interest that it or they may possess or claim in and to Customer Data, and to cause its employees and those of its Subcontractors to waive and agree not to assert any moral rights or reversionary rights they may possess in the Customer Data. If and to the extent such waivers are deemed invalid, Service Provider will, and will cause its employees and those of its Subcontractors engaged in the use of Customer Data to grant to Customer the exclusive, perpetual, irrevocable, worldwide and royalty- free right to use, modify and distribute such items without any requirement of attribution or prior consent. Upon request by Customer, Service Provider will, using commercially reasonable efforts, execute or have executed and delivered, and will cause Subcontractors to execute and deliver, any instruments or other documents that may be necessary or desirable under any Law to preserve, or enable Customer to enforce, its rights with respect to Customer Data.

17.2 Customer Intangible Property. Upon Customer's request at any time, and without prejudice to any additional requirements specified in this Agreement, a Service Description or otherwise, Service Provider will (i) provide Customer with physical and electronic access to all or any part of the Customer Data, Customer Software, related documentation or other intangible property of Customer, such as all work-in-progress (collectively, "Customer Intangible Property") in Service Provider's possession or control, (ii) promptly return to Customer, in the format and on the media then in use, all or any part of such Customer Intangible Property and (iii) erase or destroy all or any part of such Customer Intangible Property, in each case to the extent so requested by Customer; provided, however, that Service Provider may retain a copy thereof to the extent, and for so long as, reasonably necessary to perform the Services, Termination Assistance or other activities reasonably related to termination or expiration, unless otherwise instructed by Customer. Service Provider has no right to retain, encrypt, corrupt or destroy any Customer Intangible Property (other than retaining archival copies, if any, authorized by Customer), and waives any and all statutory or common law liens, claims of lien or similar rights, remedies or encumbrances that may now or hereafter exist and might limit or condition Service Provider's unconditional obligations to return Customer Intangible Property. The foregoing requirement is in addition to any other requirements contained in applicable Service Descriptions, Procedures Manuals or other documentation concerning periodic deliveries of Customer Intangible Property.

18. SECURITY AND CONFIDENTIALITY

18.1 Security Protocol. Service Provider will develop and implement, or satisfy Customer that Service Provider has developed and implemented, and maintain throughout the Term a comprehensive Security Plan that meets or exceeds Customer's Security Protocol as set forth in Schedule 10. The Security Plan will be no less rigorous than Service Provider's security policies in effect as of the Effective Date.

18.1.1 Customer may revise the Security Protocol from time to time during the Term.

18.1.2 If Customer changes such Security Protocol in a manner that results in substantial cost increases to Service Provider, Service Provider's compliance with the new

Security Protocol will be subject to the Change Control Procedures. Customer will give Service Provider reasonable advance notice of changes in the Security Protocol.

18.1.3 If Service Provider intends to implement a Change to the Service Provider's Security Plan (pursuant to Customer's request), Service Provider will notify Customer. Service Provider will not, without Customer's approval, implement any such Change if, in Customer's reasonable judgment, such Change would cause the Service Provider's Security Plan to fail to meet the standards set forth in the Security Protocol.

18.1.4 If Service Provider or Subcontractors discover or are notified of a breach or potential breach of security relating to the Security Protocol, Service Provider will – promptly (i) notify the Customer Contract Executive of such breach or potential breach and (ii) use commercially reasonable efforts to remedy the effects of the breach or potential breach.

18.2 Confidentiality. Without prejudice to any additional requirements contemplated under the Security Protocol, the recipient of Confidential Information will maintain its confidentiality at least to the same extent and manner as the recipient protects its own Confidential Information.

18.2.1 Neither Customer nor Service Provider will disclose, publish, release, transfer or otherwise make available Confidential Information of, or obtained from, the other Party in any form to, or for the use or benefit of, any person or entity without such other Party's consent.

18.2.2 Notwithstanding the foregoing, Customer and Service Provider will be permitted to disclose relevant aspects of the other's Confidential Information to its officers, directors, agents, professional advisors, contractors, subcontractors and employees and to the officers, directors, agents, professional advisors, contractors, subcontractors and employees of its Affiliates, to the extent such disclosure is not restricted under any Authorization, Consent, Assigned Agreement or Managed Agreement, but only to the extent that such disclosure is reasonably necessary for the performance of its duties and obligations or the determination, preservation or exercise of its rights and remedies under this Agreement.

18.2.3 The recipient of any Confidential Information will take all reasonable measures to provide that Confidential Information of the disclosing Party is not disclosed or duplicated in contravention of the provisions of this Agreement by such officers, directors, agents, professional advisors, contractors, subcontractors and employees, whether during or after the term of their employment or engagement by the recipient.

18.2.4 When Service Provider provides Customer's Confidential Information to any such entity, including any Affiliate, Service Provider will require such entity to sign, or confirm that it has signed, a confidentiality agreement with terms substantially the same as those described in this Article.

18.2.5 Upon expiration or termination of the Agreement, after completion of transition to a successor service provider, each Party will return or destroy the other Party's Confidential Information.

18.2.6 The obligations in this Article will not restrict any disclosure made pursuant to any Law. The recipient will give prompt notice to the disclosing Party of any demand for such disclosure.

18.3 Unauthorized Use or Disclosure. Without limiting either Party's rights in respect of a breach of this Article, each Party will (i) promptly notify the other Party of any attempted or actual unauthorized possession, use or knowledge of the other Party's Confidential Information by any person or entity that may become known to such Party; (ii) promptly furnish to the other Party full details of the attempted or actual unauthorized possession, use or knowledge; and (iii) assist the other Party in investigating or preventing the recurrence of any attempted or actual unauthorized possession, use or knowledge of Confidential Information. Each Party will reasonably cooperate with the other Party in any

investigation or litigation deemed necessary by the other Party to protect its confidentiality or proprietary rights.

18.4 Facilities Segregation. Service Provider agrees to segregate Customer Data and information logically from its other customers' data and information.

19. REPRESENTATIONS, WARRANTIES, AND COVENANTS

19.1 Customer. Customer represents, warrants and covenants that:

19.1.1 Customer is a chartered municipal corporation;

19.1.2 Customer has all requisite corporate power and authority to execute, deliver and perform its obligations under this Agreement;

19.1.3 the execution, delivery and performance of this Agreement by Customer (i) has been duly authorized by Customer and (ii) will not conflict with, result in a breach of or constitute a default under any other agreement to which Customer is a party or by which Customer is bound;

19.1.4 Customer is in compliance with all Laws, and Regulatory Requirements, applicable to Customer, except where the failure to be in compliance would not have a material adverse effect on Customer's ability to fulfill its obligations under this Agreement; and

19.1.5 there is no outstanding litigation, arbitrated matter or other dispute to which Customer is a party which, if decided unfavorably to Customer, would reasonably be expected to have a material adverse effect on Customer's ability to fulfill its obligations under this Agreement.

19.2 Service Provider. Service Provider represents, warrants and covenants that:

19.2.1 Service Provider is a corporation duly organized, validly existing and in good standing under the Laws of the State of Delaware;

19.2.2 Service Provider has all requisite corporate power and authority to execute, deliver and perform its obligations under this Agreement;

19.2.3 The execution, delivery and performance of this Agreement by Service Provider (i) has been duly authorized by Service Provider and (ii) will not conflict with, result in a breach of or constitute a default under any other agreement to which Service Provider is a party or by which Service Provider is bound;

19.2.4 Service Provider is duly licensed, authorized or qualified to do business and is in good standing in every jurisdiction in which a license, authorization or qualification is required for the ownership or leasing of its assets or the transaction of business of the character transacted by it, except where the failure to be so licensed, authorized or qualified would not have a material adverse effect on Service Provider's ability to fulfill its obligations under this Agreement;

19.2.5 Service Provider is in compliance with all Laws, and Regulatory Requirements, applicable to Service Provider except where the failure to be in compliance would not have a material adverse effect on Service Provider's ability to fulfill its obligations under this Agreement; and

19.2.6 There is no outstanding litigation, arbitrated matter or other dispute to which Service Provider is a party which, if decided unfavorably to Service Provider, would reasonably be expected to have a material adverse effect on Service Provider's ability to fulfill its obligations under this Agreement.

19.3 EXCEPT AS EXPRESSLY PROVIDED IN THIS AGREEMENT OR A STATEMENT OF WORK, ALL IMPLIED AND STATUTORY WARRANTIES AND CONDITIONS, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED OR STATUTORY WARRANTY OR CONDITION OF MERCHANTABILITY, FITNESS FOR PARTICULAR PURPOSE OR SATISFACTORY QUALITY ARE HEREBY OVERRIDDEN, EXCLUDED AND DISCLAIMED.

19.4 Notwithstanding Section 15.11, and unless a separate warranty term is specified, the representations and warranties of the Parties under this Article 19 shall survive expiration or termination of this Agreement only with respect to claims that accrued during the Term (for clarity this applies to the provision of Termination Assistance and extension of Services under Section 15.9).

20. ADDITIONAL COVENANTS

20.1 Customer Covenants. Customer covenants and agrees with Service Provider that the Customer Software and Customer Materials will not infringe upon the proprietary rights of any third party (except as may have been caused by a modification or unauthorized Use by Service Provider or Subcontractors).

20.2 Service Provider Covenants. Service Provider covenants and agrees with Customer that:

20.2.1 none of the Services, Deliverables, Service Provider Software, Service Provider Materials, Commissioned Work or any enhancement or modification to the Customer Software or Customer Materials performed by Service Provider or Subcontractors, or any other work or item provided to Customer by Service Provider or Subcontractors or used in the performance of the Services, infringe upon or misappropriate, or will infringe upon or misappropriate the proprietary rights of any third party (except as may have been caused by (i) Service Provider's compliance with Customer's designs , but only to the extent that there were no non-infringing means to comply with Customer's designs or (ii) a modification or unauthorized Use or combination by Customer or its agents);

20.2.2 Service Provider will take commercially reasonable measures, as described in the SOWs, to prevent the introduction into or proliferation of any Malicious Code into the Deliverables, Customer Software or Customer's operating systems or environment. If Malicious Code is found to have been introduced into any such systems or deliverables Service Provider shall immediately notify Customer of the introduction and with Customer's assistance reduce the effects of such Malicious Code, and if the Malicious Code causes an interruption of the Services, a loss of operational efficiency, or loss of data, Service Provider shall assist Customer to the same extent to mitigate and restore such loss.;

20.2.3 without the consent of Customer, Service Provider will not insert into the Deliverables, Customer Software or any Service Provider Software or Service Provider Materials used to provide the Services any code that would have the effect of disabling or otherwise shutting down all or any portion of Customer's operating systems or environment;

20.2.4 upon Customer's request, or promptly following its own discovery, Service Provider shall, as part of the Services, correct any errors in reports, transactions, Customer Data, processing or other Services only to the extent attributable to errors and omissions of Service Provider, its employees and subcontractors, or to failures of computers, networks, systems or other resources provided by Service Provider. If Service Provider is not responsible for such errors in reports, transactions, Customer Data, processing or other Services, the Parties will utilize Contract Staff in accordance with Article 5.8 (Prioritization of Scheduling);

20.2.5 without the consent of Customer, Service Provider will not insert into any Deliverables, Customer Software or Customer's operating systems or environment any code that is made generally available to the public on open source code licensing terms or on other terms that would require Customer to make the source code thereof publicly available;

20.2.6 Service Provider will have and maintain adequate facilities, equipment and a duly qualified staff as necessary to perform the Services in an efficient, professional and timely manner and as described in each Service Description;

20.2.7 Service Provider will perform the Services in a timely, efficient and professional manner in accordance with industry standards, without prejudice to Service Provider's obligation to meet any applicable Service Levels;

20.2.8 [RESERVED];

20.2.9 The Deliverables and any and all fixes, updates, enhancements and modifications thereto provided by Service Provider, will function in accordance with their Specifications prior to implementation and for the period specified in the applicable Statement of Work or other commissioning document, unless such malfunction or non-conformance with Specifications is caused by (i) a modification other than by or on behalf of Service Provider, (ii) a use contra-indicated in the Statement of Work or Service Provider provided documentation or (iii) defects in Customer supplied components or materials; and

20.2.10 Service Provider will warrant that software and other Deliverables will in all material respects conform with mutually agreed upon specifications and standards and be free from material defects or nonconformities for a period of at least one hundred and twenty (120) days after their first production use. Hardware, when supplied will be subject to normal manufacturer’s warranties unless otherwise agreed. Service Provider also warrants that Services will be rendered with promptness and diligence and will be executed in a workmanlike manner, in accordance with the Information Technology Infrastructure Library Best Practices, (currently found at www.itil.com) and in compliance in all material respects with the Statements of Work and the Service Levels.

21. GOVERNANCE

21.1 Customer Contract Executive. Customer will appoint an individual ("Customer Contract Executive") who from the date of this Agreement will serve as the primary Customer representative under this Agreement. The Customer Contract Executive will have overall responsibility for managing and coordinating the performance of Customer's obligations under this Agreement and will be authorized to act for and on behalf of Customer with respect to all operational matters relating to this Agreement. Notwithstanding the foregoing, the Customer Contract Executive may, upon notice to Service Provider, delegate such of his or her responsibilities to other Customer employees, as the Customer Contract Executive deems appropriate.

21.2 Governance. The Parties will govern their relationship in accordance with the Governance Model set forth in Schedule 17. Each Party will appoint duly qualified, employees to represent the Party in the applicable governance positions set forth in the Governance Model in accordance with the provisions of Schedule 17. Each Party will cause its representatives to devote the time necessary to meet their respective responsibilities (such as the time as may be specified by the Agreement or Schedule 17) and meet regularly in accordance with Schedule 17. Each Party will be responsible for its representatives’ execution of their respective obligations and responsibilities under the Governance Model. The Governance Model will contain the processes and procedures that the Parties will use to review and verify Service Provider's compliance with Law.

21.3 Informal Dispute Resolution Procedures. Any dispute, controversy or claim of any kind or nature arising under or in connection with this Agreement (such as disputes as to the creation, validity, interpretation, breach or termination of this Agreement) (a "Dispute") will be considered in accordance with the dispute resolution procedures set forth in this Article 21 and in Schedule 17, Governance Model. The dispute resolution process will be initiated upon receipt by a Party of a notice from the other Party specifying the nature of the Dispute. Unless the Customer Contract Executive and Service Provider Contract Executive otherwise agree in writing, either Party may pursue its rights and remedies under this Article 21 after the earlier of (i) the exhaustion of the negotiation and escalation procedures set forth in

the Governance Model and (ii) the date that is forty-five (45) days after the receipt of the dispute notice. Notwithstanding the foregoing, either Party may commence proceedings if delay in doing so would be prejudicial, because of the need for immediate provisional remedies, imminent expiration of applicable statutes of limitation, or other good cause.

21.4 Resolution Without Proceedings. Service Provider and Customer intend to use reasonable measures to avoid the litigation of any dispute under this Agreement. As a result, the Parties mutually agree that any Dispute arising under or in connection with this Agreement will be resolved using the alternative dispute resolution provisions and procedures described in the Sections below and in Schedule 17, Governance Model.

21.4.1 Except as otherwise agreed, Service Provider and Customer will each bear all of their own expenses incurred during the procedures and will pay one-half of any applicable fees of any mediator or third party agency engaged to assist in resolution of disputes short of legal proceedings.

21.4.2 All negotiations pursuant to this Article 21 are confidential and will be treated as compromise and settlement negotiations for purposes of applicable rules of evidence. No proposals, offers, counter-offers or other communications will be admissible in evidence in any proceeding for any purpose; provided, however, that this will not be construed to render confidential, inadmissible or non- discoverable any otherwise admissible documents or other evidence merely because they were referred to, transmitted or otherwise used in any such settlement negotiations.

21.5 Negotiation. Upon the written notice by either Party, a Dispute will be submitted to the Customer Contract Executive and Service Provider Contract Executive, who will meet and employ their best efforts to negotiate an amicable resolution of the Dispute. Unless the Parties otherwise agree, this meeting and negotiation will occur not later than ten (10) days from the date of submission of the Dispute to the Customer Contract Executive and Service Provider Contract Executive, whichever occurs last. If the Contract Executives fail to resolve the dispute by negotiation, the Dispute will be escalated within the Customer and Service Provider organizations in accordance with the Governance Model.

21.6 Mediation. In the event the Parties fail to resolve the Dispute by negotiation, then the Parties will submit the Dispute to non-binding mediation, which will be held in Santa Clara, CA in accordance with the process and procedures set forth in Schedule 17, Governance Model, and the Rules (defined below). Unless the Parties agree otherwise, the completion of the mediation process will not exceed thirty (30) days from initial submission to conclusion. Any mediator appointed shall have a minimum of three (3) years of experience in the information technology outsourcing industry.

21.7 The Parties may agree on one mediator. If they cannot agree on one mediator, the Party demanding mediation shall request the Superior Court of Santa Clara County to appoint a mediator. The mediation meeting shall not exceed one day (eight (8) hours). The Parties may agree to extend the time allowed for mediation under this Agreement. For any contract dispute, mediation under this section is a condition precedent to filing an action in any court. In the event of mediation which arises out of any dispute related to this Agreement, the Parties shall each pay their respective attorney's fees, expert witness costs and cost of suit, through mediation only.

21.8 Certain Legal Proceedings. Notwithstanding the foregoing, the Parties agree that:

21.8.1 If a controversy or claim relates in any way to a lawsuit brought by a third party against one or both of the Parties, either Party may, at its option, file a cross-complaint against the other Party in such lawsuit with respect to the controversy or claim, in which case the controversy or claim will be resolved by such court.

21.8.2 If a controversy or claim relates in any way to the interpretation, breach or threatened breach of provisions of this Agreement concerning Confidential Information or

intellectual property, it may, at either Party's option, be resolved by a court of competent jurisdiction.

21.9 Continued Performance. Service Provider will continue to provide the Services during the pendency of any of the proceedings commenced pursuant to this Article 21, and Customer will continue to perform its obligations (including but not limited to the making of payments to Service Provider), all in accordance with this Agreement).

21.10 Jurisdiction. The Parties hereby submit and consent to the exclusive jurisdiction of competent courts within the County of Santa Clara, California. They irrevocably agree that all actions or proceedings relating to and permitted this Agreement will be litigated in those courts. Each of the Parties waives any objection which it may have based on improper venue or forum non conveniens to the conduct of any such action or proceeding.

21.11 [RESERVED].

21.12 Injunctive Relief. The Parties agree that in the event of any breach or threatened breach of any provision of this Agreement concerning (i) Confidential Information, (ii) intellectual property rights or (iii) other matters for which equitable rights are expressly provided in this Agreement, money damages may not be an adequate remedy. Accordingly, the non-breaching Party may seek preliminary or permanent, mandatory or prohibitory injunction or order from a court of competent jurisdiction.

22. INDEMNIFICATION

22.1 Service Provider Indemnity. Service Provider will indemnify, defend and hold Customer, its Council members, officers, directors, employees, agents and volunteers, and their respective officers, directors, employees and agents harmless from and against, any third party Claims arising out of or relating to Service Provider's negligence or willful misconduct during its performance of its obligations under this Agreement as follows:

22.1.1 Relating to a fraudulent inaccuracy, untruthfulness or breach of any material warranty, representation or covenant made by Service Provider under this Agreement;

22.1.2 [RESERVED].

22.1.3 Any and all Losses related to claims or demands by any third party against any of them to the extent arising out of, or resulting from, the grossly negligent or willful dissemination by Service Provider or Service Provider's Subcontractors (or by any personnel assigned by Service Provider or Service Provider's Subcontractors to perform any of Service Provider's obligations under this Agreement) of false, incomplete, or incorrect information, information that Customer directed Service Provider not to disseminate, or information that Service Provider reasonably should have known not to disseminate, or resulting from Service Provider's or Service Provider's Subcontractor's grossly negligent or willful failure to disseminate information that Service Provider is obligated to provide to Customer's Affiliates or End-Users pursuant to this Agreement, whether through any help-desk facility or any other Services in which Service Provider has direct contact with any such third parties. By way of illustration, if Service Provider's or its Subcontractor's worker, in providing help-desk Services, purposefully gave information to a user of Customer which Service Provider knew to be false or incorrect and that user then made a claim against Customer for damages sustained because such user acted in reliance upon such information received from Service Provider's or its Subcontractor's worker, Service Provider would be obligated to indemnify Customer for that claim pursuant to this Section 22.1.3.

22.1.4 relating to a violation of any Law applicable to Service Provider as a provider of the Services, unless such compliance is a requirement under a Service Description, there is no way to comply with the requirement and comply with Law, and Service Provider has previously informed Customer in writing that Service Provider cannot comply with both the requirement and Law;

22.1.5 relating to (a) a work-related injury of Service Provider employees or its agents unless Customer's intentional act was the proximate cause of such injury, (b) employee benefits of Service Provider employees, (c) any aspect of the Contract Staff's employment relationship with Service Provider or the termination of the employment relationship with Service Provider, including but not limited to any claims for co-employment of the Contract Staff with Customer; (d) any claims asserted by its Subcontractors; or (e) any claims asserted in connection with the Assigned Agreements or Managed Agreements as a result of Service Provider's act or omission;

22.1.6 relating to any amounts, including taxes, interest and penalties, assessed against Customer that are the obligation of Service Provider;

22.1.7 arising out of or relating to any breach by Service Provider of its obligation with respect to Confidential Information;

22.1.8 relating to personal injury (including death) or property loss or damage resulting from Service Provider's acts or omissions; or

22.1.9 [RESERVED].

22.2 Customer Indemnity. Customer will indemnify, defend and hold Service Provider, its officers, directors, employees, agents and Affiliates, and their respective officers, directors, employees and agents (collectively, the "Service Provider Indemnitees"), harmless from and against, any Claims resulting from, arising out of or relating to Customer's negligence or willful misconduct; or

22.2.1 relating to a fraudulent inaccuracy, untruthfulness or breach of any material warranty, representation or covenant made by Customer under this Agreement;

22.2.2 relating to a violation of Law by Customer;

22.2.3 relating to any amounts, including taxes, interest and penalties, assessed against Service Provider that are the obligation of Customer;

22.2.4 arising out of or relating to Customer's breach of its obligations with respect to Confidential Information;

22.2.5 relating to personal injury (including death) or property loss or damage resulting solely from Customer's acts or omissions; or

22.2.6 relating to any claims asserted in connection with the Assigned Agreements or Managed Agreements as a result of Customer's act or omission.

22.3 Intellectual Property Indemnity. Subject to the provisions of this Section 22.3, Customer and Service Provider each agree to defend the other against any third party action to the extent that such action is based on a claim that the Customer Software or Customer Materials, in the case of Customer, and the Services, the Deliverables, the Service Provider Software or the Service Provider Materials, in the case of Service Provider, or the Confidential Information provided by or on behalf of the other Party (each an "Indemnified Item"), (i) infringes a copyright under United States or other applicable law, (ii) infringes a patent granted under United States or other applicable laws, or (iii) constitutes an unlawful disclosure, use or misappropriation of another party's trade secret. The indemnitor will bear the expense of such defense and pay any damages and reasonable attorneys' fees that are attributable to such claim finally awarded by a court of competent jurisdiction.

22.3.1 If an Indemnified Item becomes the subject of a claim under this Section 22.3, or in the indemnitor's opinion is likely to become the subject of such a claim, then the indemnitor may, at its option, (i) modify the Indemnified Item to make it non-infringing or cure any claimed misuse of another's trade secret, provided such modification does not adversely affect the functionality of the Indemnified Item, (ii) procure for the indemnitee the right to continue using the

Indemnified Item pursuant to this Agreement, or (iii) replace the Indemnified Item with an Indemnified Item that is substantially equivalent that is non-infringing or that is free of claimed misuse of another's trade secret. Any costs associated with implementing any of the above alternatives will be borne by the indemnitor. If none of the foregoing courses of action is practical, the allegedly infringing Item will be withdrawn, and the scope, charges and Service Levels will be equitably adjusted to reflect such withdrawal.

22.3.2 With respect to any Software provided or developed by a Party pursuant to this Agreement, such Party will have no liability to the other Party under this Section 22.3.2 (i) to the extent that any claim of infringement is based upon the use of the Software in connection or in combination with equipment, devices or Software not supplied by that Party or use of the Software in a manner for which the Software was not designed, (ii) for infringements that arise solely as a result of the implementation by that Party of functionality requirements presented by the other Party where there is no non-infringing alternative to such implementation, and the other Party has been so advised by that Party prior to implementation, and (iii) for fixes, updates, modifications, enhancements and improvements to the Software made by any Party other than that Party or its subcontractors (unless directed to do so by the other Party).

22.4 Indemnitee Responsibilities. If any third party claim is commenced against a Party entitled to indemnification under this Article, the indemnitee will provide notice of the claim and copies of all related documentation to the indemnitor. Such notice and documentation will be provided as promptly as possible. The indemnitee will cooperate, at the cost of the indemnitor, in all reasonable respects with the indemnitor and its attorneys in the investigation, trial and defense of such claim and any appeal. The indemnitee may, at its own cost and expense, participate, through its attorneys or otherwise, in such investigation, trial and defense of such claim and any appeal. In such case, the indemnitor will cooperate with the indemnitee's attorneys.

22.5 Settlement. An indemnitor will have no liability with respect to any settlement reached without its prior written consent. Settlements of indemnified claims will be subject to the indemnitee's approval, which will not be unreasonably withheld or delayed; provided, however, that such consent may be given or withheld in the indemnitee's sole discretion to the extent the settlement admits liability, stipulates to any declaratory or equitable remedy, or affects the indemnitee's intellectual property or Confidential Information.

22.6 Limitation. The indemnitor's liability to pay or reimburse amounts owed with respect to any indemnified claim will be limited to the extent of the indemnitor's proportional contribution to the relevant Claim. No indemnitor will be liable for any amounts owed with respect to Claims suffered by the indemnitee to the extent attributable to the indemnitee's negligence or willful misconduct.

22.7 Subrogation. In the event an indemnitor indemnifies an indemnitee pursuant to this Article, the indemnitor will, upon payment in full of such indemnity, be subrogated to all of the rights of the indemnitee with respect to the Claim to which such indemnity relates.

22.8 Service Provider Warranties. It is understood by the Parties that the indemnity provisions herein are distinct from the performance warranties as provided in the Agreement and its Schedules. Service Provider’s acts and conduct which are related to its performance under this Agreement and its Schedules are not subject to the indemnity provisions of Article 22, but are instead subject to warranties, covenants, and promises to perform as described in Articles and Schedules, as they may be amended from time to time by the Parties in accordance with this Agreement.

23. DAMAGES

23.1 Exceptions to Limitations. This Article 23 does not exclude or limit liability for (i) either Party's indemnification obligations with respect to Claims under Article 22, Indemnification, (ii) either Party's breach of Article 18, Security and Confidentiality, or Schedule 10, Security Protocol, and (iii) a Party's fraud or willful misconduct.

23.2 Disclaimer of Consequential Damages. Subject to Section 23.1, both Parties' liability hereunder will be for actual direct damages only and the Parties hereby disclaim liability to the other for any punitive, special, incidental or consequential damages or lost profits. The following costs and expenses will be considered direct damages and neither Party will assert that they are indirect, incidental, consequential or special damages or lost profits to the extent they arise directly from a Party's failure to perform in accordance with this Agreement:

23.2.1 costs and expenses to repair, recreate from the original documents of the Customer or reload any lost, stolen or damaged Customer Data;

23.2.2 costs and expenses to implement a work-around in respect of any failure to provide the Services;

23.2.3 costs and expenses to, replace lost, stolen or damaged hardware, Software or other materials;

23.2.4 cover damages, such as incremental costs and expenses incurred to procure the Services or corrected Services in- house or from an alternate source;

23.2.5 [RESERVED];

23.2.6 [RESERVED];

23.2.7 payments, fines, penalties or interest imposed by a governmental body or regulatory agency for failure to comply with requirements or deadlines;

23.2.8 Limitation on Service Provider Liability. Subject to Section 23.1, Service Provider's aggregate liability for damages to Customer during the entire Term will not exceed the lesser of Customer's actual, proven direct damages or the total Fees for the twelve (12) months immediately preceding the last act or omission giving rise to such claim for liability, unless the liability arises out of an act or omission during the first twelve (12) months after the Effective Date, in which case the Service Provider's aggregate liability for Customer's actual, proven direct damages will not exceed the estimated amount of Fees that would be payable during the first twelve (12) months of the Agreement.

23.3 Waiver of Liability Cap. In the event Service Provider's total liability for claims asserted by Customer under or in connection with this Agreement exceeds eighty five percent (85%) of the liability cap set forth in Section 23.2.8 and Service Provider refuses to waive such cap or increase the available liability cap, then Customer may terminate this Agreement upon sixty (60) days prior written notice to Service Provider, without payment of any Termination for Convenience Fees.

23.4 Limitation on Customer Liability. Subject to Section 23.1, Customer's aggregate liability for damages to Service Provider during the entire Term of the Agreement will not exceed the lesser of Service Provider's actual, proven direct damages or the total Fees for the twelve (12) months immediately preceding the last act or omission giving rise to such claim for liability, unless the liability arises out of an act or omission during the first twelve (12) months after the Effective Date, in which case Customer’s aggregate liability for Service Provider’s actual, proven direct damages will not exceed the estimated amount of Fees that would be payable during the first twelve (12) months of the Agreement.

23.5 Negotiated Risk Allocation. The Parties expressly acknowledge that the limitations and exclusions set forth in this Article have been the subject of active and complete negotiation between the Parties and represent the Parties' agreement based upon the level of risk to the Parties associated with their respective obligations under this Agreement and the payments provided hereunder to Service Provider for its performance of the Services.

24. INSURANCE

24.1 General. Service Provider will maintain insurance during the term of this Agreement as set forth in Schedule 29 Customer Insurance Requirement. Service Provider will also cause its Subcontractors who perform Services at Customer Service Locations to maintain, or will maintain for such Subcontractors, insurance during the term of this Agreement as set forth in Schedule 29 Customer Insurance Requirement except with respect to limits.

24.2 Damage to Property. Service Provider is responsible for the risk of loss of, or damage to, any property of Customer at a Service Provider Service Location, unless such loss or damage was caused by the acts or omissions of Customer or an agent of Customer. Customer is responsible for the risk of loss of, or damage to, any property of Service Provider at a Customer Service Location, unless such loss or damage was caused by the acts or omissions of Service Provider or a Subcontractor.

25. FORCE MAJEURE

25.1 Excuse from Performance. If and to the extent that a Party's performance of any of its obligations pursuant to this Agreement is prevented, hindered or delayed by fire, flood, earthquake, elements of nature or acts of God, acts of war, acts of a public enemy, acts of a nation or any state, territory, province or other political division, terrorism, riots, civil disorders, rebellions or revolutions, epidemics, theft, quarantine restrictions, freight embargoes or any other similar cause beyond the reasonable control and without the fault or negligence of such Party (each, a "Force Majeure Event"), and such non-performance, hindrance or delay could not have been prevented by reasonable precautions, then the non-performing, hindered or delayed Party will be excused for such non-performance, hindrance or delay, as applicable, of those obligations affected by the Force Majeure Event for as long as such Force Majeure Event continues.

25.1.1 The foregoing excuse from non-performance is conditioned upon such Party continuing to use commercially reasonable efforts to recommence performance whenever and to whatever extent possible without delay, through the use of alternate sources, workaround plans, backup or emergency power, redundant telecommunications circuits, or other means.

25.1.2 Notwithstanding the foregoing, the acts or omissions of a Party's agents, subcontractors, representatives, materialmen, suppliers or other third parties providing products or services to such Party will not constitute a Force Majeure Event (unless such acts or omissions are themselves the product of a Force Majeure Event).

25.1.3 The occurrence of a Force Majeure Event does not excuse, limit or otherwise affect Service Provider's obligation to provide either normal recovery procedures or any other Disaster Recovery services specified in this Agreement or in any Service Description unless such Services themselves are prevented by the Force Majeure Event.

25.2 Responsibilities of Parties. The Party whose performance is prevented, hindered or delayed by a Force Majeure Event will:

25.2.1 immediately notify the other Party of the occurrence of the Force Majeure Event and describe in reasonable detail the nature of the Force Majeure Event and such Party's good faith estimate of the likely duration of such Force Majeure Event.

25.2.2 with the cooperation of the other Party, exercise all reasonable efforts to mitigate the extent of any non-performance, hindrance or delay caused by a Force Majeure Event and any adverse consequences of such Force Majeure Event, such as, in the case of Service Provider, (i) performance of required work or the provision of the Services with the use of Service Provider's qualified management or other employees or Subcontractors, as permitted by this Agreement, and (ii) cooperating with Customer's efforts to secure necessary replacement services from third party vendors and suppliers.

25.2.3 [RESERVED].

25.2.4 Immediately notify the other Party of the cessation of such Force Majeure Event.

25.3 Alternative Sources. Within two (2) hours of the occurrence of a Force Majeure Event, Customer and Service Provider will determine the extent to which, and the duration that, the Force Majeure Event is likely to prevent Service Provider from performing its obligations in accordance with this Agreement and whether Service Provider is likely to promptly procure a suitable temporary alternate source for the affected Services.

25.3.1 If any Force Majeure Event prevents, hinders or delays performance of any of the Services, and Service Provider is unable to promptly (but in no event later than 48 hours) provide a suitable temporary alternate source for the affected Services, Customer may, without payment of Termination Fees, procure such Services from an alternate source and suspend Service Provider's provision of such Services for the duration of the Force Majeure Event pursuant to an agreement executed between Customer and such alternate source in respect of the provision of such services. Customer shall be entitled to reimbursement from Service Provider (with such reimbursement not to cover any period to the extent in excess of ninety (90) days) for the costs and expenses of such alternate provision of Services to the extent that said costs and expenses exceed the amount that Customer would have paid Service Provider hereunder for such Services.

25.3.2 Subject in all cases to Section 15.4.4, for the duration of the agreement executed between Customer and an alternate source for affected Services as described in 25.3.1.Customer is not obligated to continue paying Service Provider for the affected services.

25.3.3 Customer shall have the right to terminate this Agreement without liability or the payment of termination fees in accordance with Section 15.4.5.

25.4 Allocation of Resources. Whenever a Force Majeure Event or a Disaster causes Service Provider to allocate limited resources between or among Service Provider's customers, Service Provider will treat Customer (and restoration of Services to Customer) as well or better than every other Service Provider customer. In addition, in no event will Service Provider re-deploy or reassign any Key Service Provider Personnel to another account in the event of a Force Majeure Event.

26. NOTICES

26.1 General. Any notice or other communication which either Party hereto is required or authorized by this Agreement to give or make to the other will be given or made either by reputable air courier service, or by facsimile transmission confirmed by electronic confirmation, addressed to the other Party in the manner referred to below and, if that notice is not returned as being undelivered within seven (7) days of dispatch of that notice or communication in the case of reputable air courier service, or is electronically confirmed in the case of facsimile transmission, such communication will be deemed for the purposes of this Agreement to have been given or made after three (3) days, if sent by reputable air courier service, or (four) 4 hours, for a facsimile transmission.

26.2 Addresses. For the purposes of Section 26.1 above, the address of each Party will be: For Service Provider:

For Service Provider:

Unisys Corporation
801 Lakeview Drive, Suite 100
Blue Bell, PA 19422
Attn: Vice President US&C Public Sector Accounts

With a copy of all legal notices to:
801 Lakeview Drive, Suite 100
Blue Bell, PA 19422
Attn: General Counsel

For Customer:

City of Santa Clara
Attention: Information Technology Department
1500 Warburton Avenue
Santa Clara, California 95050
or by facsimile at (408) 241-3479

With a copy of all legal notices to:
City of Santa Clara
Attention: City Attorney's Office
1500 Warburton Avenue
Santa Clara, California 95050
or by facsimile at (408) 249-7846

Either Party may change its address for service by notice as provided in this Article.

27. NON-SOLICITATION

27.1 General. Except as provided in Articles 6 and 15 , during the Term and for the period of six (6) months after the expiration or termination of the Agreement (and any Termination Assistance or extension of Services under Sections 15.7 and 15.9, Neither Party will , without the prior written consent of the other Party directly or through a third party, intentionally solicit or entice away (or seek or attempt to entice away) from the employment of the other Party's employees . This Article 27 will not apply to unsolicited responses by employees to general recruitment advertising In addition, this Article 27.1 shall not apply to Customer soliciting Service Provider's employees solely dedicated to providing the Services.

28. RELATIONSHIP

28.1 Independent Parties. Service Provider and Customer are independent entities. Neither this Agreement will constitute, create or give effect to a joint venture, pooling arrangement, principal/agency relationship, partnership relationship, employer/employee or formal business organization of any kind and neither Service Provider nor Customer will have the right to bind the other without the other's express prior written consent.

28.2 Third Party Agreements. Unless otherwise agreed, Service Provider will provide that all Third Party Agreements that are to be assigned or transferred to Customer pursuant to Article 15, will be freely assignable to Customer without any modification or consent, subject only to Customer agreeing to assume Service Provider's obligations thereunder from and after the effective date of the assignment.

29. SEVERABILITY

If any provision of this Agreement is held invalid, illegal or unenforceable for any reason by any court of competent jurisdiction, such provision will be separable from the remainder of the provisions hereof which will continue in full force and effect as if this Agreement had been executed with the invalid provisions eliminated.

30. WAIVER

The failure of either Party to insist upon strict performance of any provision of this Agreement, or the failure of either Party to exercise any right or remedy to which it is entitled hereunder or thereunder, will not constitute a waiver thereof and will not cause a diminution of the obligations established by this

Agreement. A waiver of any default will not constitute a waiver of any subsequent default. No waiver of any of the provisions of this Agreement will be effective unless it is expressly stated to be a waiver and communicated to the other Party in writing.

31. PUBLICITY

31.1 Customer Publicity. Customer may in its discretion make any press announcements or publicize this Agreement or any matters relating to any of the transactions contemplated hereby.

31.2 Service Provider Publicity. Except with the written consent of Customer, Service Provider will not make any press announcements or publicize this Agreement or any matters relating to any of the transactions contemplated hereby or use any Customer name or trademark in any way whatsoever.

32. GOVERNING LAW

32.1 General. This Agreement will be governed by and construed in accordance with the laws of the State of California and applicable U.S. federal laws, without giving effect to its principles of conflict of laws.

32.2 [RESERVED].

32.3 UN Convention. The 1980 United Nations Convention on Contracts for the International Sale of Goods will not apply to this Agreement.

32.4 Binding Nature. This Agreement is binding on Service Provider and Customer and their respective successors and permitted assignees.

33. ASSIGNMENT AND DIVESTITURE

33.1 Assignment. Service Provider may not assign this Agreement without the prior written consent of Customer. Any such assignment will be void. Customer may assign or transfer this Agreement, upon notice to Service Provider, to a related party or unrelated party pursuant to a sale, merger or other business reorganization of Customer or any of its operating units.

33.2 [RESERVED].

34. GOOD FAITH

Whenever this Agreement requires or contemplates any action, consent or approval, each Party will act reasonably and in good faith and will not unreasonably withhold or delay such action, consent or approval, unless the Agreement expressly establishes some other standard, such as exercise of a Party's sole discretion.

35. FURTHER ASSURANCES

Each party will provide such further documents or instruments required by the other Party as may be reasonably necessary or desirable to give effect to this Agreement and to carry out its provisions.

36. NO THIRD PARTY BENEFICIARIES

Nothing in this Agreement, express or implied, is intended to confer rights, benefits, remedies, obligations or liabilities on any person (such as any employees of the Parties) other than the Parties or their respective successors or permitted assigns.

37. COUNTERPARTS

This Agreement may be executed in one or more counterparts, each of which will be deemed an original, but all of which taken together will constitute one and the same instrument.

38. ENTIRE AGREEMENT

This Agreement constitutes the entire agreement between the Parties in connection with its subject matter and supersedes all prior communications and agreements between the Parties relating to its subject matter.

(document continues on next page)

IN WITNESS, WHEREOF, this Agreement is hereby executed by the duly authorized representatives of the Parties, as set forth below.

The Parties acknowledge and accept the terms and conditions of this Agreement as evidenced by the following signatures of their duly authorized representatives. It is the intent of the Parties that this Agreement shall become operative on the Effective Date.

CITY OF SANTA CLARA, CALIFORNIA
a chartered California municipal corporation

APPROVED AS TO FORM:

Dated: 5.22.17

for BRIAN DOYLE
Interim City Attorney

RAJEEV BATRA
City Manager
1500 Warburton Avenue
Santa Clara, CA 95050
Telephone: (408) 615-2210
Fax: (408) 241-6771

ATTEST:

ROD DIRIDON, JR.
City Clerk

"City"

UNISYS CORPORATION
a Delaware corporation

Dated: 5/3/17

By: _____
(Signature of Person executing the Agreement on behalf of Contractor)

Name: Robert Von Essen

Title: Director of Public Sector Accounts

Local Address: 801 Lakeview Drive, Suite 100
Blue Bell, Pennsylvania 19422

Email Address: Robert.VonEssen@unisys.com

Telephone: (916) 607-7700

Fax: (916) 607-7700

"CONTRACTOR"

SCHEDULE 1

DEFINITIONS

TO

MASTER SERVICES AGREEMENT

BY AND BETWEEN

CITY OF SANTA CLARA

AND

UNISYS CORPORATION

Schedule 1

Definitions

TERM	DEFINITION
"Additional Resource Charges" or "ARC"	As defined in Schedule 5, Fees.
"Agreement"	Means that certain managed services agreement by and between the City of Santa Clara and Service Provider
"Affiliate"	Means, with respect to an entity, any other entity Controlling, Controlled by or under common Control with that entity.
"Annual Execution Plan"	As defined in Schedule 3A, Cross Functional Statement of Work
"Appendices"	Means the Appendices to the Schedules that may be mutually agreed upon by the Parties from time to time.
"Application Software"	Means any non-Core Software package (e.g., City COTS and custom developed applications).
"Assigned Agreements"	Means those Customer agreements with third parties specified in Schedule 8 that are assigned to Service Provider.
"Authorizations"	Means any notice, consent, license or authorization from any regulatory, governmental or other authority necessary, required or customary for a Party to enter into or perform its obligations under this Agreement.
"Availability"	Means the percentage of time that a given Service or system is fully operational and available when its resources are called upon at a random point in time. Availability represents a measure of the fraction of time (expressed as a percentage) during a defined period when the Service or system is deemed to be equal to or better than a designated Service Level Availability (%) = 100% - Unavailability (%) ▪ Where Unavailability is defined as: Σ Unplanned Outage Duration x 100% ▪ Schedule Time - Planned Outages Availability measurement calculations shall be limited to those Service and system components that are directly under the control of Service Provider, as well as Service and system components for which Service Provider is responsible for subcontracting to Third Parties. Availability measurement calculations shall exclude any Service or system elements downtime to the extent caused by a Force Majeure Event, as well as any Service or system that is controlled exclusively by the City.
"Base Case"	Means Customer's budget for those functions directly and indirectly considered as Services and related to providing Services.
"Base Fees"	As defined in Schedule 5, Fees.
"Change"	Means any change with respect to the scope or performance of the Services.
"Change Control Procedures"	As defined in Section 5.6 of the MSA, means the procedures set forth in Schedule 14, pursuant to which the parties will propose, authorize and implement any Change.
"Change Order"	As defined in Schedule 14, Change Control Procedures.
"Change Request"	Means a request by the City of Service Provider to implement a Change to the Services or a City request that Service Provider perform a new service

TERM	DEFINITION
	(each, a "Change Request").
"Claim"	Means all claims for Losses asserted by third parties.
"Commissioned Work"	As defined in Section 16.4., means all non-Software literary works or other works of authorship that may be created pursuant to or in connection with this Agreement, including any procedures manuals, training materials and other items that are created for Customer.
"Confidential Information"	Means all information that relates to the business, affairs, products, developments, trade secrets, know how, personnel, customers and suppliers of either Party that has been designated as "confidential information" by a Party and disclosed under circumstances sufficient to place the recipient on reasonable notice of the confidentiality of the information, together with all information derived from the foregoing, but excluding any information (i) independently developed by the receiving Party without using the Confidential Information of the disclosing Party, (ii) publicly disclosed by an entity other than the receiving Party under no duty of confidentiality or (iii) rightfully in the possession of the receiving Party without a duty of confidentiality prior to the receipt of such information.
"Configuration Item" or "CI"	Means a component of an infrastructure which is (or is to be) under the control of Configuration Management.
"Consents"	Means any notice or consent required for Customer to (i) transfer or assign any Assigned Agreements to Service Provider, (ii) permit Service Provider to Use any Customer Software, (iii) permit Service Provider to manage any Managed Agreements under this Agreement, (iv) permit Service Provider to transfer to Customer any Third Party Agreements in accordance with Section 15.7 or (v) permit Customer to Use any Service Provider Software.
"Contract Year"	Means each 12-month period during the Term, starting on the Effective Date.
"Control" (and derivatives)"	Means, with respect to an entity, the legal, beneficial, or equitable ownership, directly or indirectly, of fifty percent (50%) or more of the capital stock (or other ownership interest ordinarily having voting rights), or the direct or indirect power to direct the management and policies of the entity.
"Control Rules"	As defined in Section 14.8., means the legal obligations under the Securities Act of 1933; the Securities Exchange Act of 1934; the Sarbanes Oxley Act of 2002; related rules and regulations of the Securities and Exchange Commission, including Regulation S-X; the rules, regulations and listing standards of the New York Stock Exchange; the rules, regulations and standards of the Public Company Accounting Oversight Board; and any other financial control or disclosure requirement imposed by law on public companies, as such legal requirements may be amended or modified from time to time.
"Core Software"	Means Core Software the suite of Software programs used to build a City-defined standard image for a supported device (e.g., operating system Software, office productivity and messaging Software, information security tools, remote connectivity Software).
"Corrective Assessment"	Are fixed monetary amounts due and payable to Client as a result of a failure by Service Provider to meet a Critical Milestone. Corrective Assessments are specified for each project and are set forth in Schedule 4.
"Critical Deliverable"	Means those Deliverables set forth in Section 8 of Schedule 3.
"Critical Milestone"	Means specific performance objectives associated with discrete projects that have a fixed time frame for completion (e.g., completion of Transition). Projects for which Critical Milestones have been identified are set forth in Schedule 4.
"Critical Transition Milestones"	Means the transition milestones set forth in the Transition Plan in Schedule 13 that are identified as critical.
"Customer Data"	Means any and all data provided to Service Provider by Customer, its agents

TERM	DEFINITION
	or customers, or collected by Service Provider in the course of its performance of the Services and any and all data generated or compiled from or using such data, including, without limitation, any personal data of any Customer employee or contractor and any data concerning any of Customer's customers.
"Customer Intangible Property"	As defined in Section 17.2., means and includes all or any part of the Customer Data, Customer Software or other intangible property of Customer, including work-in-progress.
"Customer Materials"	Means any materials, documentation, manuals, guidelines, business processes, methodologies, database rights, inventions, designs, drawings, Confidential Information or other items licensed or owned by Customer and used by Customer to support its IT or other operations, excluding Customer Software and excluding the Service Provider Software and Service Provider Materials.
"Customer Service Locations"	Means the Service Location's owned or leased by Customer, at which Services will be delivered. The Customer Service Locations are identified in Schedule 15, Service Locations.
"Customer Software"	Means the Software listed in Schedule 19, Customer Software. For the avoidance of any doubt, Customer Software may include both Software owned by and licensed to Customer, but excludes Software licensed to Customer by Service Provider.
"Database"	Means the occurrence of any one or more of the following: (a) SQL – The count of instances of SQL Server installs. (b) Oracle – The count of instances of Oracle installs. (c) Other database instances that may be added through change control Note: For RU purposes, Database shall mean a physical instance.
"Default"	Means the occurrence of any one or more of the following: (a) any material breach by Service Provider of its obligations under the Agreement, provided that such breach, if curable, is not cured within thirty (30) days (or such longer period as expressly set forth in the Agreement) after Client provides Service Provider with written notice thereof; (b) any material breach by Service Provider with respect to its obligations under the Agreement not capable of cure; (c) performance of the Services by Service Provider in a manner that meets or satisfies any one or more of the criteria expressly specified in Schedule 3 or Schedule 4 as constituting a Default, subject to any applicable cure period, or (d) any failure by the Service Provider to meet a specific Service Level in three (3) or more consecutive Measurement Intervals or four (4) or more non-consecutive Measurement Intervals in any rolling twelve (12) month cycle. (e) any breach by Service Provider with respect to any of its representations and warranties under the Agreement, provided that such breach, if curable, is not cured within thirty (30) days (or such longer period as expressly set forth in this Agreement) after Client provides Service Provider

TERM	DEFINITION
	with written notice thereof; (f) the failure by Service Provider to complete the transition of all Services to Service Provider as set forth herein, provided that such Default shall not be subject to a cure period; (g) any material breach by Service Provider of its obligations regarding execution of the Disaster Recovery Plan or BCP during a disaster, provided that such Default shall not be subject to a cure period; (h) numerous or repeated breaches by Service Provider of its obligations under this Agreement which collectively constitute a material breach by Service Provider of its obligations under the Agreement, provided that such Default shall not be subject to a cure period; (i) the existence of a material representation by Service Provider in the Agreement that Service Provider knew or should have known was materially false when made, except that, if such misrepresentation is curable and such cure will fully and completely effect a reasonable resolution, there shall not be a Default if such misrepresentation is cured within fifteen (15) days after Service Provider has been notified by Client in writing thereof; (j) the insolvency of Service Provider, the entrance of Service Provider into receivership or any arrangement or composition with creditors generally, the filing of a voluntary petition (or an involuntary petition that is not dismissed within sixty (60) days) for bankruptcy or reorganization or dissolution or winding-up of Service Provider, a general assignment for the benefit of creditors of Service Provider, or a seizure or a sale of a material part of Service Provider's property by or for the benefit of any creditor or governmental agency; (k) an assignment or attempted assignment by Service Provider in violation of the terms hereof; For purposes of the Agreement, the word "cure" shall include implementation by the applicable Party of a reasonable work-around or similar temporary measures, provided that such measures do not cause the other Party to incur significant expense, or expend significant time or resources, and that the defaulting Party continually pursues and promptly implements a full and complete cure until such time as such cure is so effected. Unless the Agreement expressly states that no cure period shall apply or otherwise provides for a different cure period with respect to any event or circumstance that qualifies as a Default under paragraphs (a) through (k) above (in which case no cure period or such other cure period shall apply, as applicable), there shall be a cure period of thirty (30) days with respect to such event or circumstance. In each instance in which the Agreement contemplates a cure period or otherwise affords a Party an opportunity to cure a potential Default, (i) the other Party shall be required to provide written notice to such Party of such potential Default, (ii) the cure period shall begin when such notice has been received by such Party, and (iii) the potential Default shall not give rise to a Party's rights and remedies under Section 15 of the Agreement unless such

TERM	DEFINITION
	notice has been provided and the cure period based thereon has elapsed.
"Defect"	Means an error or flaw that produces an incorrect or unexpected result or behavior, or a failure to meet or comply with requirements, specifications and documentation.
"Deliverable(s)"	Means all tangible products commissioned by Customer including Software, hardware, systems and related documentation, manuals or other items that Service Provider may develop, or have developed, for Customer pursuant to or in connection with this Agreement, and includes, without limitation, (i) any modification or enhancement of, or derivative work based upon, the Customer Software or Customer Materials or hardware or systems or (ii) any third party Software or related documentation, manuals or other materials licensed to Customer and developed by Service Provider or any of its Affiliates, Subcontractors or other agents as part of the Service. Deliverables will not include the ongoing delivery of Services under the Service Description.
"Disaster"	Means any unplanned interruption or disruption of the Services that at a minimum materially impairs the ability of Service Provider to deliver the Services in the manner specified in the applicable Service Description.
"Disaster Recovery"	Means the restoration by Service Provider of the critical processing functions as identified in a Disaster Recovery/Business Recovery Plan pursuant to the terms of such plan as set forth in Schedule 23, Business Continuity and Disaster Recovery Plan and applicable Service Description or the Procedures Manual.
"Dispute"	As defined in Section 21.3., means any dispute, controversy or claim of any kind or nature arising under or in connection with this Agreement including, but not limited to, disputes as to the creation, validity, interpretation, breach or termination of this Agreement.
"End-User"	Means any individual who is designated by Customer to receive or use the Services.
"Effective Date"	As defined in the first paragraph of this Agreement.
"Escrow Account"	Means an account established with a Third Party escrow agent as described in Section 11.6.
"FAQs"	Means frequently asked questions.
"Fees"	As set forth on Schedule 5, Fees. Means all charges to be paid by Customer to Service Provider for Services.
"Firewalls"	Means the combined count of firewalls and VPN appliances.
"Force Majeure" or "Force Majeure Event"	As defined in Section 25.1 of the Master Service Agreement
"Full Rights"	As defined in Section 16.2.3., means, with respect to Deliverable, that Customer will own no right, title or interest in or to the Deliverable, apart from Customer's continuing rights in and to any Customer Software or Customer Materials that may be incorporated or embedded in such Deliverable.
"Governance Model"	As set forth in Schedule 17, Governance Model.
"IMACD"	Means install, move add, change or disposals
"Impact Assessment"	As defined in Section 5.8, means Service Provider's notification to Customer of the expected impact of Customer's change in priorities for (i) scheduling work, (ii) the relocation of Services to a different Service Location, (iii) Customer's performance of facilities-related services at the Customer Service Locations, or (iv) such other changes directed by Customer.
"Incident"	Means any event which is not part of the standard operation of (1) a Service

TERM	DEFINITION
	and which causes, or may cause, an interruption to, or a reduction in, the quality of that Service and (2) any hardware, Software or systems supported by Service Provider under the Agreement and which causes, or may cause, an interruption to, or a reduction in, the quality of the operation of such hardware, Software or systems.
"Indemnified Item"	As defined in Section 22.3, means the Customer Software or Customer Materials, in the case of Customer, and the Services, the Deliverables, Service Provider Software or Service Provider Materials, in the case of Service Provider, or the Confidential Information provided by or on behalf of the other Party.
"Initial Term"	As defined in Section 15.1, means the time period agreed upon by the Parties as the initial term.
"Intellectual Property Rights"	As defined in Section 16 of the Agreement.
"ITIL"	A set of practices for IT Service Management (formerly an acronym for Information Technology Infrastructure Library)
"Key Service Provider Personnel"	As defined in Section 7.2
"Law" or "Laws"	Means any treaty, directive, statute, legislation or other law enacted by any federal, state or local government in a relevant jurisdiction, including any Regulatory Requirement contemplated thereunder.
"Level 0"	Means the support that provides End-Users with basic Software and/or hardware self-help capabilities (e.g., reporting and tracking Incidents and Service Requests via web forms, password reset tools).
"Level 1"	Means the first level of support for all Service Requests and Incidents. End-User calls shall be answered and screened for the nature of the calls, the calls shall be logged into a call tracking system, a Priority Level shall be assigned to each reported Incident, and all Incidents that can be Resolved without escalation are Resolved. Level 1 support incudes support to address basic software and/or hardware Incident Resolution, basic "how to" support and basic service request support (e.g., password resets, unlocking accounts).
"Level 1.5"	Means the support provided by the Service Desk to address Incidents and Service Requests that cannot be Resolved by Level 0 Support or Level 1 Support and requires support from Service Desk staff with specific Application System functional knowledge, or requires a Service Desk analyst to run diagnostics and remotely perform advanced troubleshooting. Level 1.5 support may include ordering parts as needed to facilitate any required desk side visits from field services technicians (Level 2 support).
"Level 2"	Means the second level of support – contacted by Level 1 support after Level 1 support has attempted to Resolve the Incident or Service Request with the tools and processes available to Level 1. Level 2 support is support provided for Incidents and Service Requests that require more complex support and/or subject matter expertise on software or infrastructure and is usually an escalation of the Incident or Service Request from Level 1 support. Level 2 support is typically provided by SMEs in the applicable Service Tower or third party Service Tower (e.g., application system support groups, enterprise computing), which may include Service Provider personnel, Customer personnel, and Third Party Service Tower personnel, or is provided by field technicians providing End-User support.
"Level 3"	Means the third level of support – the support provided for complex Software and infrastructure Incidents and Service Requests, and is usually an escalation from Level 1 support, Level 2 support and usually involves systems engineers certified in the applicable Service Tower or Third Party Service Tower, or Third Party vendors (e.g., hardware and Software vendors).

TERM	DEFINITION
"Limited Rights"	As defined in Section 16.2.2, means with respect to a Deliverable, Service Provider will have the perpetual, irrevocable, paid-up, royalty-free, worldwide, non-exclusive, sub-licensable but otherwise non-transferable right to Use the Deliverable, in whole or in part.
"Malicious Code"	Means any virus, worm, Trojan horse, time bomb, spyware or other malicious code intended to interrupt, corrupt, disable or damage computer programs, systems, environments or data, or to permit unauthorized access thereto.
"Managed Agreement Invoices"	Means any invoices related to the Managed Agreements.
"Managed Agreements"	Means any of Customer's agreements with third parties that are managed or administered by Service Provider and listed in Schedule 8.
"Master Service Agreement" or "MSA"	Means this Agreement and its Schedules.
"Measurement Interval"	Means the period during which Service Provider's performance against a particular Service Level will be measured, as set forth in Exhibit 1 to Schedule 4 to the Agreement.
"Messaging"	Means the occurrence of any one or more of the following: (a) Services (MS Outlook) – The count of mailboxes that are hosted exclusively in one of the city's data centers. (b) Services (Office 365) – The count of mailboxes that are hosted with the Microsoft Azure Office 365 Cloud. (c) Other Messaging platforms or services that may be added through change control
"NAS"	Network Attached Storage. Means the volume of utilized storage in TB for the network attached storage. See schedule 5 – Fees.
"No Rights"	As defined in Section 16.2.1, means with respect to a Deliverable, that Service Provider will have no rights in the Deliverable, other than Residual Rights.
"Out-of-Scope Service"	Means a service that is not within the scope of the Services prior to the execution of a Change and is not contemplated under Section 3.1 and Section 3.2 of the Agreement
"Parties"	Means both Service Provider and Customer.
"Party"	Means either Service Provider or Customer as appropriate
"Physical Servers"	Means the occurrence of any one or more of the following: (a) ESX Host Servers – The count of physical servers that host VMWare virtual machines. (b) Windows Servers – The count of all other physical servers not host Virtual Machines. (c) Other servers that may be added through change control. Note: Includes machines in all environments rather than exclusively production.
"PMO"	Means Project Management Office.
"Polycoms"	Means a telephone set that provides specialized conferencing capabilities.
"Priority Level"	Means the level of business criticality and business impact that is assigned to an Incident, and the urgency with which a response and Resolution is required. The Priority Levels are Priority Level 1, Priority Level 2, Priority Level 3 and Priority Level 4
"Priority Level 1"	As defined in Schedule 4, Exhibit 1
"Priority Level 2"	As defined in Schedule 4, Exhibit 1

TERM	DEFINITION
"Priority Level 3"	As defined in Schedule 4, Exhibit 1
"Priority Level 4"	As defined in Schedule 4, Exhibit 1
"Problem"	Means the unknown underlying cause of one or more Incidents.
"Procedures Manual"	Means a written document that includes Service Provider's procedures for performing the Services and all operations manuals, support plans and user guides necessary and sufficient to document such procedures.
"Project"	Means any discrete amount of work undertaken, in accordance with Section 3.2 of the Agreement, to create a product, solution or service. Each Project must be carried out pursuant to the Project request and approval process.
"Project Services"	A group of related but temporary work activities undertaken to create a unique product, service or result to meet specified objectives.
"Reduced Resource Charge" or "RRC"	As defined in Schedule 5, Fees.
"Regulatory Requirement"	Means any applicable regulation, ordinance, government decree or other government requirement with respect to a Party's performance of its obligations under this Agreement.
"Resolution" and its derivatives	Means to repair, replace, reconfigure, reinstall, re-route, or otherwise provide a complete solution to an Incident that returns the system and/or End User(s) to non-degraded full functionality. Implementing a workaround is a partial or temporary resolution.
"Root Cause Analysis" or "RCA"	An activity that identifies the root cause of an Incident or Problem.
"Schedule"	Means a Schedule attached to this Agreement.
"Security Protocol"	As defined in Schedule 10, Security Protocol.
"Service Commencement Date"	Means the date set forth in Schedule 13 for completion of the Transition of Services.
"Service Level"	Means the standards prescribed for the performance and quality of the Services pursuant to this Agreement as defined in Schedule 4.
"Service Credits" or "Credits"	Means the amounts set forth in Schedule 4 to be paid or credited by Service Provider in the event Service Provider fails to provide the Services in accordance with the applicable Service Levels.
"Service Locations"	Means the locations set forth in Schedule 15, as may be changed by the Parties from time to time in accordance with the Change Control Procedures.
"Services"	As defined in Section 3 of the Agreement.
"Service Provider Indemnitees"	As defined in Section 22.2.
"Service Provider Materials"	Means any materials, documentation, manuals, guidelines, business processes, methodologies, database rights, inventions, designs, drawings, Confidential Information or other items licensed or owned by Service Provider and used by Service Provider to perform the Services, excluding Service Provider Software and the Customer Software and Customer Materials.
"Service Provider Owned Software"	Means any Service Provider Software owned by Service Provider or any of its Affiliates.
"Service Provider Locations"	Means any Service Location owned or leased by Service Provider from which Services will be delivered. The Service Provider Locations are identified in Schedule 15 – Service Locations.
"Service Provider Software"	Means Software that is owned or licensed by Service Provider or any of its Affiliates, Subcontractors or other agents and used by Service Provider or any of its Affiliates, Subcontractors or other agents to provide the Services.
"Service Provider Third Party Software"	Means any Service Provider Software licensed by Service Provider or any of its Affiliates, Subcontractors or other agents

TERM	DEFINITION
	From a third party.
"Service Request"	Means a request from a user for advice, information, a routine change or access to some IT service.
"Service Tower"	Means each of the Statements of Work (SOWs) set forth under Schedule 3
"SME"	Means Subject Matter Expert.
"Software"	Means any application, operating system, middleware component, tools, utilities or other computer program, in object or source code form as applicable in the circumstances.
"SOW"	Means Statement of Work.
"Specifications"	Means technical and functional documentation describing the Deliverables, as prepared by the Service Provider and approved by Customer.
"Subcontractor"	As set forth on Schedule 18, Approved Subcontractors. Means any agent or contractor approved by Customer and retained by Service Provider to perform Services on behalf of Service Provider.
"Tape Backup"	Means the copying of data to a physical tape storage for the purpose of providing off-site storage of data.
"TB"	Means Terabytes.
"Term"	As described in Section 15.
"Termination Assistance"	As defined in Schedule 16, Termination Assistance.
"Third Party"	Means an entity other than Service Provider and its Affiliates and other than Customer and its Affiliates.
"Third Party Agreements"	Means any Third Party license agreements, support agreements and other third party contract rights utilized by Service Provider in connection with the performance of the Services.
"Transition"	Means the set of tasks and activities necessary and sufficient for Service Provider to complete the successful transfer of Services from Customer or its contractors to Service Provider, in accordance with Schedule 13.
"Transition Plan"	Means the plan agreed to by the Parties to effectuate the Transition attached as Schedule 13, Transition Plan and Milestones.
"Transition Schedule"	Means the schedule or timeline from commencement to completion of Transition.
"Transition Services"	As defined in Section 4.1.
"Use"	Means to make, reproduce, copy, distribute, adapt, modify, make derivative works of, perform, display, transmit and otherwise use, and to sublicense any or all of such rights to third parties.
"Virtual Instance"	Means the occurrence of any one or more of the following: (a) An emulation of a computer system providing the functionality of a physical computer, including but not limited to computers running operating systems such as Windows or Unix/Linux. (b) The count of Virtual Machines running on an ESX Host Server. (c) Other virtual servers that may be added through change control. (d) Note: Includes machines in all environments rather than exclusively Production
"VPN"	Means a Virtual Private Network, a means of an authorized remote user connecting securely to the city network to gain access to city applications.
"Wireless Controller"	Means a network device that provides control and management of Wi-Fi access points on a network.

SCHEDULE 2

FINAL SERVICE TOWER SOLUTIONS

to the

IT MANAGED SERVICES AGREEMENT

between

THE CITY OF SANTA CLARA

and

UNISYS CORPORATION

1.0 General Solution Questions

Instructions: *Provide responses to each of the following general solution questions. Limit your response to half a page for each question:*

1. *Under each of the City goals and objectives listed below, summarize how each objective will be supported through the proposed solution, both short term and long term. Be as specific as possible.*

    a) *Enhance business capabilities with commercially available local government focused applications*

Response

Unisys is a global market leader in IT services for government agencies and understands the challenges that city governments are facing to transform their business capabilities securely to better serve their employees and citizens. A key aspect of enhancing business capabilities is to listen to Departmental goals and translate those requirements to a clear strategy to drive business value. The industry is filled with innovative commercially available government business applications. Insight from Unisys government experts will contribute to the evaluation and selection of business applications that meet the City's needs. Additionally, we will work closely with Department leaders to develop a prioritized Citywide digital strategy along with a roadmap that identifies the short, medium, and long term projects that enable the strategy, including the replacement of legacy applications. Unisys will drive this digital roadmap mainly through finding the right commercially available applications by using the following strategies:

- Think "Cloud First" when evaluating new applications, major upgrades, and cloud management
- Review products used by other government organizations of a similar size and scope to compare and contract ideas – in particular in California but also nationally
- Review COTS software products in all tiers to find the most suitable (i.e., do not just look at Tier 1 COTS solutions)
- Use commercially available software where possible to avoid costly custom solutions
- Pursue transparency anytime, anywhere as well as security in everything we do
- Work closely with current COTS application vendors to drive effective upgrades and maintenance activities to maintain continued improvement in existing application performance and functionality
- Use DevOps and Agile (SAFe Framework) methodologies to effectively deploy secure solutions.

The Unisys Team has years of experience in managing the City's applications effectively. Through this experience, Unisys developed solid relationships with the business stakeholders and OEM vendors. We are well prepared to deploy the above strategies to not only expand new services capabilities but also provide the framework to drive the City's digital government strategy.

b) Take advantage of SaaS and cloud based technologies and services to enhance flexibility and technology and business capabilities currency.

Response

SaaS and cloud based technologies are a critical part of the City's future; Unisys is a leader in helping governments such as the City move safely and securely to these technologies. Cloud and SaaS solutions offer a level of flexibility, availability, and security that help clients such as the City of Santa Clara to deliver improved services to its citizens.

Unisys has public sector leading experts who will guide, support, and work closely with Department leaders and City IT to further identify, prioritize, and deliver these services to the City's citizens. Additionally, Unisys will continue to bring a security mindset to this effort to protect City services and data as well as confirm that applications meet required standards for security such as Payment Card Security (PCI) and the Sarbanes-Oxley Act of 2002 (SOX).

Over the past 7 years, Unisys brought a wealth of application rationalization, modernization, best practices, and knowledge to the City to support its "Cloud First" strategy. Focus was placed on citizen engagement, including moving City services to web, cloud, and mobile technologies. Today, 20 percent of the City's applications have been moved to the cloud or to SaaS models. The move of the City's websites (content management system) to the cloud enabled them to always be available during Super Bowl 50, when traffic increased by 500 percent. As upgrades are being planned, a cloud first strategy is being used (an example being the recent upgrade of Questica Budget and move to the (hosted) cloud) if there is an ROI and it makes sense for the City. In addition, any new system requirements are being written with the cloud (hosted) or SaaS in mind. Apart from software products being cloud-based, we will also look at storage needs to see if it would make sense for that to be cloud-based (e.g., video – body worn camera, water and sewer pipes video). The Unisys Team will continue to provide the level of dedication and deep knowledge of the City's applications and infrastructure to promote successful outcomes while we accelerate the SaaS and cloud initiatives in the short and long term.

Unisys is providing an Infrastructure-as-a-Service solution for near future IT roadmap and business needs, which include a Cloud Management platform (CMP) and an integrated end-to-end solution to provide integration of private cloud (on premise) based on VMware and public cloud providers (Amazon, Azure, VMware as required). This will facilitate the City of Santa Clara's future workload consolidation, automation, orchestration, rapid deployment, and automated provisioning in an open and modular manner. Providing the ability and flexibility to expand or move workloads to the cloud will facilitate an elastic compute platform and at the same time reduce demand on physical data center assets, reducing the capital expenditures and eliminating procurement delays.

The implementation of CMP will begin after the ServiceNow "go-live" date and will be complete and documented within 90 days.

c) Establish and execute a Citywide digital strategy to improve citizen engagement across the City's customer groups.

Response

As the City embarks on its third-generation IT as-a-Service transformation, it is targeting to increase citizen and community engagement through a wide variety of digital technologies that will promote openness, transparency, and ease of doing business with the City. Unisys will provide a methodology to facilitate the understanding and prioritization of City and department goals by key City stakeholders; and a clear strategy with a short and long-term roadmap is developed to meet those goals.

Unisys will maintain this roadmap and provide effective communications on progress to ensure that the City makes progress on its citizen and community engagement goals through the prioritized roadmap.

Unisys will produce a "*Digital Strategy Plan and Roadmap"* in the first year (within 12 months) after "go live" that is intended to provide a high-level framework and prioritized roadmap of Digital Government related projects and initiatives for the City. Following the initial deliverable, this roadmap document will be revalidated and updated at least once every 12 months to reflect any changes in the City's priorities and technological changes.

The "Digital Strategy Plan and Roadmap" will contain the following:

- List of all the projects and initiatives in a Microsoft Word document that describes the goals, desired outcomes, and a clear description of the initiative, inclusive of any people, process, and technology components in the initiative. For example an initiative could be – Conduct Focus groups across key segments across the City who use online bill payment services.
- High level (Rough Order Magnitude) cost estimate and time duration for completion of the initiative. This will also include where possible and feasible a rough order projection of benefits (quantitative or qualitative) that accrue from implementing this initiative.
- Initiatives laid out in a high level Gantt Chart or an equivalent depiction that sequence these initiatives over a 3 to 5 year time frame.
- MS PPT document of the same content and a final presentation to the key City Stakeholders.

Unisys activities will include the following:

- Reviewing existing documents, projects underway across the City and various departments (a maximum of 8 such departments including the Information Technology Department) Interview major City stakeholders in various departments and prioritization of the City's digital needs and opportunities, and help the City develop a Strategic Roadmap of Digital Government Initiatives by leveraging our Strategic Advisory consulting capabilities.
- Providing a ROM cost for these initiatives and their dependencies (including one time and ongoing cost estimates)

- Assist with ongoing monitoring of these initiatives that the City chooses to implement. The Unisys Applications Program Manager and Enterprise Architect, along with our PMO, will monitor of the strategy, priorities, and associated projects and initiatives. They will also leverage the knowledge of the Unisys digital government experts.

The specific activities to be undertaken, the deliverables that will be produced and City's responsibilities, and our assumptions are highlighted below:

Producing the "Digital Strategy Plan" – First 12 months after "Go Live"

The following Unisys Team members (inclusive of any subcontractors) will be involved in this effort:

Unisys PMO (including the Project Lead from the day-to-day onsite team): This person will coordinate the various activities of this effort, facilitate the scheduling of interviews, identify City resources for interviews and workshops, and schedule the workshops and final presentation. This role will work closely with the City designated decision maker to identify any issues and make any decisions on behalf of Unisys.

Unisys Applications Project Manager: This role will be part of the onsite team and will coordinate the technical activities of the effort with the City stakeholders and the subject matter experts.

Unisys Enterprise Architect (part of the day-to-day onsite team): This role will be part of the onsite team and will coordinate the technical activities and ensure alignment with the IT strategic plan and enterprise architecture.

Unisys ApplicationS Program Manager (part of the day-to-day onsite Team): This role will be part of the onsite team and will assist by providing the team with information on Application development projects underway across various projects at the City and those that have been planned and budgeted for, and coordinating with the various departments.

Unisys Consultants (additional staff for this deliverable): Unisys consultants will conduct interviews with City staff, subject matter experts, and stakeholders; facilitate the workshops; review any documentation and materials relating to Digital Government initiatives at the City; prepare for the workshops; produce the deliverable; and participate in the final presentation of the deliverable to the City stakeholders. Unisys Consultants will work both off site and on site in order to complete their tasks.

Unisys Digital Government Subject Matter Expert (additional staff for this deliverable): Unisys Digital Government Subject Matter Expert will work closely with the Unisys consultants and provide expertise in the areas of Mobility, Social Media, Cloud technology, Digital Citizen facing services, and Open Government/Open Data initiatives. This expertise may be provided by more than one individual working both off site and visiting on site with the City staff for workshops and interviews.

The following activities are anticipated to take a little over four weeks of effort for the entire team, and will be spread over a calendar time period of three to six months and scheduled to optimize the involvement of City participants and the Unisys team.

- Review existing City provided documentation regarding Digital Government Technology Initiatives at the City, the progress to date of the various initiatives, City's goals and priorities pertaining to Digital Government initiatives and Strategy, and performance of current projects underway. Information from all of the 15 City departments will be reviewed, including the City manager's office.
- Prepare for interviews with key stakeholders from all departments including department heads, operational managers, and key IT SMEs. A maximum of 16 such interviews spanning eight major City departments will be conducted. Each interview is anticipated to take no more than two hours, and will likely involve more than one individual and represent the decision making, operational, and technical leadership. Interview notes will be recorded in MS Excel and MS Word formats for later reference.
- Prepare documentation that outlines Unisys consultants' view of City priorities, technology enablers, and barriers that impede the City's implementation of the Digital Government initiatives to support City's goals and priorities. Prepare a Microsoft PPT briefing of Digital Technology best practices with the City stakeholder audience's needs in perspective.
- Prepare and conduct a facilitated workshop (expected to last no more than four hours, and may be spread over two days with two sessions of two hours each) with participants and stakeholders from the City departments .
    - Provide a Microsoft PPT based briefing of Digital Technology best practices to City stakeholders.
    - Identify capabilities required, enablers and barriers for the Digital Government initiatives.
    - Facilitated discussion between City departmental stakeholders, including IT.
    - Consolidate enablers and barriers into capabilities and prioritize capabilities required to accomplish the City's Digital Strategy over a period of time.
- Document the findings of workshop and follow up with City stakeholders after the workshop to gather information, get clarifications.
- Consolidate the prioritized capabilities into a list of initiatives that can be funded, executed, and managed (projects). For each of these initiatives, provide a high-level ROM cost range, along with anticipated benefits for the City, and a list of dependencies, and estimate of its complexity. Each initiative will be defined clearly; the output will be in the form of MS Word and PPT documents for each of the initiatives.
- Distribute the list of initiatives along with project definition and ROM cost estimates at least two weeks prior to the next "prioritization workshop" to the key City stakeholders and participants.
- Create a strawman roadmap of prioritized projects (Unisys' consultants view). This will then be used as the basis of discussion during the facilitated prioritization workshop.

- Prepare for, schedule, and conduct a facilitated planning workshop involving the key City stakeholders from the City departments. This workshop will be planned for about four hours, and spread over two days of two sessions of no more than two hours each. If needed, an additional two hours session may be scheduled.
    - Facilitate the discussion based on the strawman roadmap and list of initiatives distributed, and arrive at a list and roadmap of projects based upon input from the City stakeholders and participants. This list will then be prioritized in a systematic voting exercise and placed on a "roadmap" in a sequence to be executed.
- Document the output of the "prioritization" workshop and review with workshop participants and others in the City and make any required modifications. The documentation will be in MS PPT format, and the details in MS Word documents. This document will be distributed at least two weeks before the final presentation of findings. This deliverable will be the "*Digital Strategy Plan*" document.
- Present the findings of the prioritization workshop to key City stakeholders in an Oral presentation.

Ongoing Monitoring and Governance of the Digital Strategy Plan

The Digital Technology Strategy plan and roadmap of prioritized initiatives will be incorporated into the ongoing list of projects being monitored, tracked, and managed by the PMO. Unisys PMO, Applications Program Manager, and Enterprise Architect will work closely to monitor progress, and assess changes, deviations, issues, etc. This is expected to be a collaborative effort between Unisys and the City.

Any changes to city goals and priorities will also be passed along to the Unisys Digital Government Technology consultants for impact evaluation.

Deliverable: Periodic status reports regarding progress, milestones, and issues for the Digital Strategy Plan roadmap (tracking and monitoring progress).

Revalidating and updating the "Digital Strategy Plan" every 12 months thereafter.

After the initial Digital Strategy Plan document is produced, it will be refreshed every 12 months for the City. This effort is not anticipated to be as elaborate as the one involved in producing the initial deliverable.

This effort is expected to take a week of time for the Unisys Team, over a period of time not to exceed three calendar months. The following activities will be performed to produce the revised Digital Strategy plan every 12 months:

- The onsite PMO, Applications Program Manager and the Enterprise Architect will track on an ongoing basis the progress of Digital Strategy projects against the "roadmap" in the Digital Strategy Plan through the course of the year, note any deviations, and bring those to the City's attention.

- Flag any changes or deviations from the plan and changes to City's goals and priorities, and analyze for potential impact to the Digital Strategy plan through the course of the year.
- Review any significant changes to City's priorities that require new technology enablers, and review any new barriers that may have been introduced since the initial Strategy plan was created that have impeded the plan's progress.
- Review the consolidated updates and changes and prepare for an onsite visit and a facilitated workshop with key City Stakeholders; distribute the materials for this workshop at least two weeks prior to the scheduled workshop.
- Conduct a facilitated workshop (not to exceed four hours spread over two days in two sessions) with the key City stakeholders to review progress against the plan, and identify and prioritize any changes to the Digital Strategy and "roadmap" required to bring the plan back on track, or make any modifications due to change in priorities.
- Make any required modifications to the Digital Strategy plan; review the changes with key stakeholders and publish the plan.

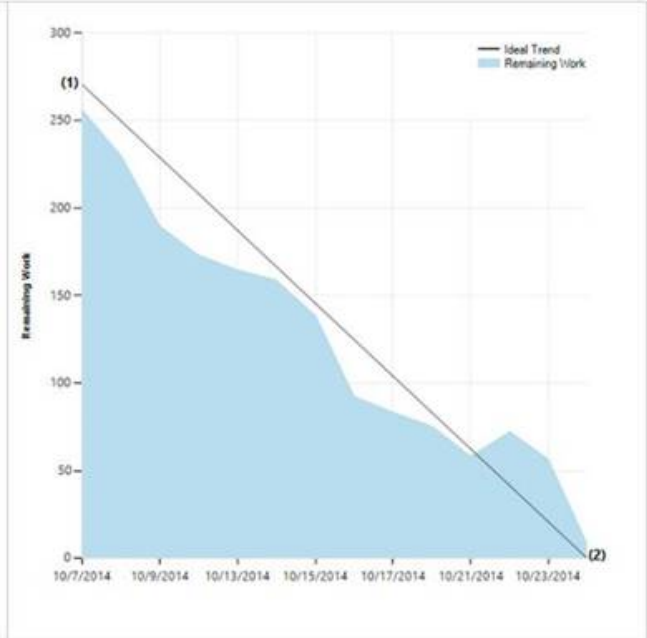
d) *Provide City management and staff proven IT tools, processes, capabilities and access to City data they need to improve city business operations, effectiveness and efficiency.*

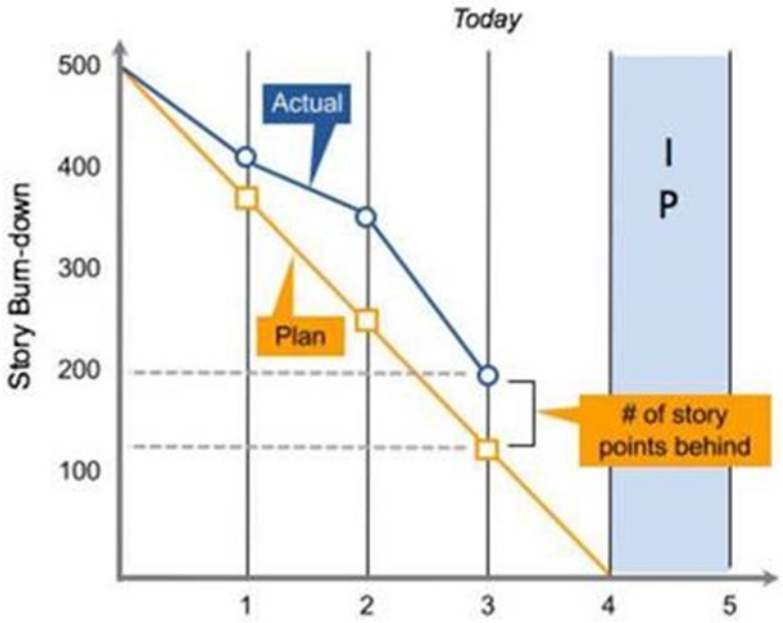
Response

Enterprise Agile is a new way to work but the core remains the same, measure business outcomes and improvement there off across the team. Santa Clara is not capturing most of the tickets as majority of the work in areas like application services happen via shoulder taps. Hence the first component will be to capture that data and set it as a base line for a given team's performance for current state. Hence we will Capture each and every ticket by ensuring that the support provider creates the ticket even if it is a shoulder tap. This will give us a base line on number of tickets and the cycle time for each ticket.

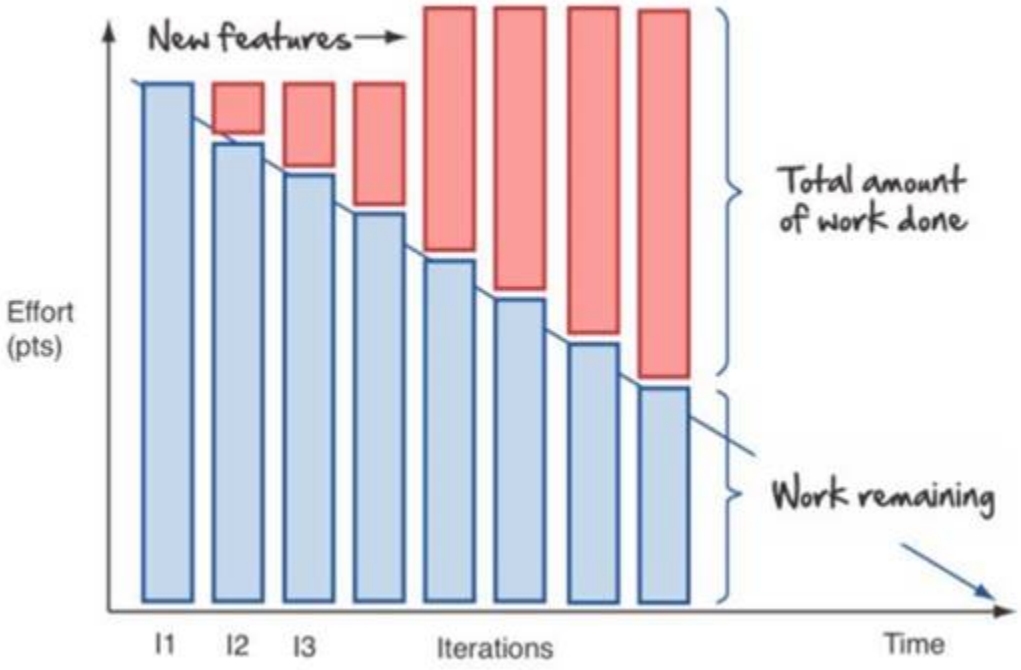
While transforming to Agile, each team's velocity (or capacity) will be estimated and over 3 sprint the actual velocity (capacity of the team) will be established. Based on the established velocity of the team, during sprint planning (or Kanban meeting, as the case may be) relevant stories will be planned and committed by the teams. Tracking planned v/s actual through burn down chart will give us insight into the teams progress on almost daily basis and end of the sprint a demonstration and retrospective (every two weeks) will help establish the accomplishment and gaps and how to improve those gaps as we move ahead.

The team burn up charts will provide us with progress made in terms of goals for the quarter and predictive probability of the total work getting done. This will also show if the work assigned is more or less based on teams velocity.





The predictability metrics, captured at the end of each Program Increment (PI) (each PI is 5 sprints long) is an indicator of reliability of teams estimates and throws up discussions if there is deviation, to explore root causes and fix it.



End of every quarter, the number of tickets closed (cycle time, as established during the base lining exercise) will help establish the improvements over the base line established earlier.

Having the right IT tools, processes, and capabilities is clearly a critical part of enabling the IT Department to support and drive the City's goals. The Unisys solution will bring those tools, processes, methods, and capabilities to the City through DevOps and by leading the implementation of the Scaled Agile Framework for Enterprises (SAFe) methodology. Additionally, we will move to a new Service Management platform based on ServiceNow, which is the industry-leading cloud-based IT service platform. The ServiceNow platform along with Unisys ITSM experience brings a suite of new tools, processes, reporting, and integrated capabilities that will provide the City with enhanced access to information. These new solution capabilities will drive better business operations and efficiency for the options while enhancing overall customer service. The ServiceNow platform also includes a rich end-user portal, where self-help is available along with many other features designed to deliver a better overall experience to the City.

Agile Implementation Approach

Unisys will conduct Agile transformation and transition activities that consist of four phases: Discovery, Align, Action, and Manage. In the Discovery phase, Unisys will conduct an Agile maturity assessment based on the Agile at Scale maturity index. A list of tasks that need to be completed for the City to reach the next level of Agile maturity will be created.

In the Align phase, Unisys will conduct the Unisys Innovation Workshop that will consist of aligning the organization to the assessment completed during the Discovery phase, aligning to goals and benefits, and defining business inhibitors to agility. The two outcomes expected at the end of the workshop are called "Track 1" and "Track 2."

- Track 1's outcome is a roadmap for agility adoption that will be created and aligned with the City business priorities. This will identify teams and programs to be sequentially trained, coached, and enabled to implement business outcomes in an Agile manner. This is achieved by first mapping out the value streams within the organization, followed by identifying and prioritizing these value streams in the order that they have capability to reduce business inhibitors for the organization.
- Track 2 is about establishing and documenting the structures and capabilities for an organization to achieve the mindset shift, cultural change, process alignment, technology, and governance aligned to the Agile adoption identified in Track 1.

Having identified the programs and value streams, the roadmap to create the structures like process alignment, governance, and cultural change will be identified and an implementation plan will be put in place for the organizational changes. Structures for continual feedback and plan, do, check, and act processes will be instituted to ensure organization structural changes are continually aligned to the changes that may happen on Track 1.

Also, Unisys will roll out new Agile workflow and software tools:

- **Jira** (basic package) is a tool that meets the requirements put forth by the Align phase. Unisys can then begin to design, install, and configure the software tool so that Agile projects can be managed and tracked.
- The Jira package includes Portfolio planning capabilities for delivering value-streams with:
    - Scrum boards that detail the effort and story of all activities
    - Kanban boards for full team visibility into what is next
    - Agile reporting detailing sprint activities
    - Portfolio planning for forecasting and team management.

The Action phase is about carrying out the roadmaps created in the Align phase, and Program Kickoff is initiated. Unisys will lay out the vision and roadmap for a given program and the program backlog (program backlog constitutes features and benefits that an organization is looking to have in place on the program roadmap). This will be performed by leveraging the Unisys Innovation Workshop methodology. Unisys will then train the team members who are going to be part the "Agile Release Train," including those who will provide support such as releasing to product, system architects, and user experience staff. According to SAFe 4.0, the Agile Release Train (ART) "is a long-lived team of Agile Teams. The ART aligns teams to a common mission and provides for a regular cadence of planning, development and retrospective." There will be two different training sessions. Each training session will be 2 ½ days and will accommodate a minimum of 10 and maximum 40 participants. Training will occur at a City provided venue/facility. The first session topic will be Leading SAFe for change agents. This is for people involved at program level and above, business owners, and other executive stakeholders. This training will lead to SAFe Agilist (SA) certification on successfully completing the training and passing the test. The second session topic will be SAFe for Teams. This training is meant for team members who are going to code, test, and implement the solution. This training will lead to SAFe Practitioner (SP) certification on successfully completing the training and passing the test. The output of this Program Kickoff will be 1) vision, roadmap, and program backlog for the program, and 2) everyone trained who is on the train and supporting the ART.

The list of participants will be finalized mutually in discussion between City identified key stakeholders and Unisys trainers, and if City feels the need for additional training, this can be provided at additional costs with a new Change Order.

Having completed the requisite training, Unisys will assist the City in launching the ART and have a 2-day Program Increment planning session. According to SAFe 4.0, the Program Increment (PI) "is the larger development time box that uses cadence and synchronization to facilitate planning, limit WIP (Work in Progress), provide aggregation of newsworthy value for feedback, and ensure consistent program level retrospectives. It is composed of multiple development iterations and an innovation and planning

iteration." Unisys will have the trainer, coaches, and relevant material ready to help the team plan out their very first Program Increment based on the training that they just completed. The output of this PI Planning will be Team PI Objectives, Program PI Objectives, and Program Board that highlight the new features' delivery dates and dependencies among teams and other ARTs and relevant milestones. The Agile teams start to plan and execute the iteration. It is in iteration planning where stories in the backlog are prioritized and estimated, and acceptance criteria is created. During execution of the iteration, Agile teams will perform work such as development of their stories, iteration demos, and conducting brief daily meetings. Unisys will assist the Agile teams through all the processes of team iteration during the transition period.

The Manage phase is about ensuring that the proper governance, processes, and structures are in place to execute SAFe so that the Agile processes implemented during the transition will continue to run efficiently and effectively. Unisys will provide guidance for governance and processes during the transition period.

An example and sample of execution phase showcasing how it will work has been entailed below. The ceremonies, the people, measuring metrics, and governance components are identified below. Also, two different processes (Scrum and Kanban) and their concomitant components are enlisted below.

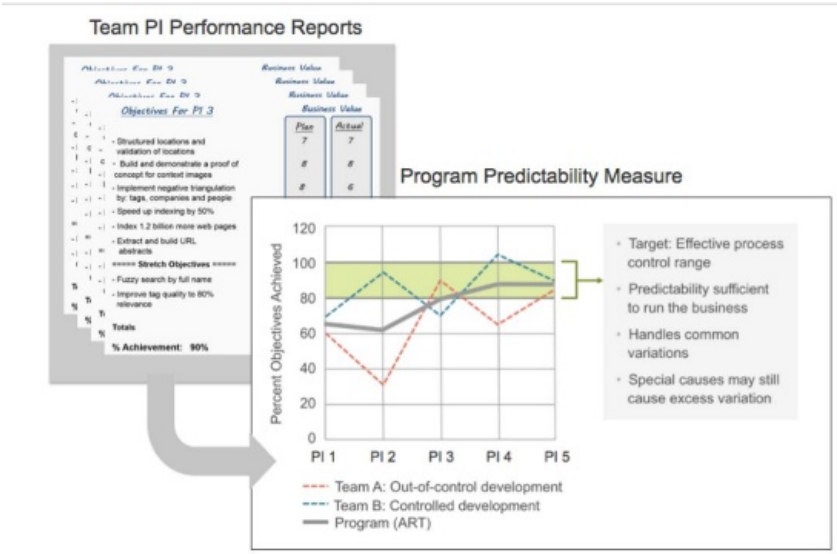
Program increment (PI) objectives are summaries of business and technical goals at multiple levels within a program increment. In the Scaled Agile Framework (SAFe), there are two levels of PI objectives. When process of planning is complete, the work that has been planned is summarized into the team PI.

PI Planning: Duration - 1 to 2 days (on a cadence of 10 to 12 weeks). Participants: All team members across all teams (from all the towers who have/are in the process of adopting Agile and DevOps), support, shared services, DevOps Product managers/Product owners, scrum masters, release train engineers, and release management.

During PI planning, the teams estimate what will be delivered during the next 10–12 weeks based on prioritized program backlog. This includes things like RFPs to be developed, functionalities to be released, enhancements/patches to be applied, and infrastructure to be created, maintained, or migrated.

All the dependencies across the ART between the teams are identified, adjustments to accommodate the same are identified and planned for, and the team commits to doing whatever has been planned. Adjustments, if needed, are made at iteration/sprint boundaries. Objectives (aligned to business outcomes) are identified, and business value assigned to each team's objectives.

Measuring Metrics: All the objectives are rolled up to Program Increment objectives (called PI objectives), and the business values are rolled up. This business value is used at the end of the PI to measure the actual against planned business value for each team and for the entire PI. Across multiple PIs, the user can plot a program predictability matrix to showcase the process control range, which is sufficient to run the business. A sample report is highlighted for review. (Jira has the ability to showcase the similar function and parameters.) The predictability matrix also helps to identify problems within a given team and to help find root cause issues for fast resolution.



A technique to scale Scrum up to large groups (over a dozen people) consists of dividing the groups into Agile teams of 5–10. Each daily Scrum within a sub-team ends by designating one member as "ambassador" to participate in a daily meeting with ambassadors from other teams, called the Scrum of Scrums.

Scrum of Scrums meeting (SOS): Duration - 15 to 30 minutes (on a weekly or twice a week cadence). Participants: Scrum Masters.

Release Train Engineer (RTE) coordinates this SOS meeting to continuously coordinate dependencies across the Agile Release Train and provide visibility into progress and impediments. Everyone is updated into the progress made for given milestones, Program PI Objectives, and internal dependencies amongst the teams. If there are issues to be resolved between teams, they are identified, and a meet after is conducted for the relevant team members to review issues and dependencies for fast resolution. Depending on the context, some organizations decide on separate Product owner SOS, which will be assessed and decided during the training and implementation phases of the project.

Release management meeting: Duration - 30 minutes to an hour (on a weekly or as needed by the program context). Participants: Release management team members.

A meeting that providence governance for upcoming releases and provides regular communication to the management. This team has the authority to approve any scope, timing, and resource adjustment for a successful release to take place.

System Demo: Duration - 30 minutes to an hour (on a biweekly basis). Participants: All the teams and program level stakeholders. For example, participants would include product managers, product owners, and system team members.

The hallmark of each PI is a biweekly system demo wherein the entire system working as on slice is showcased. In case of infrastructure teams, they showcase the accomplished system to date. Members will highlight their completed portion and highlight dependencies and acceptance criteria that have been achieved. The team showcases closed tickets while the system is working as desired without breaking current functionality, thereby highlighting the software, hardware, and other interfacing systems that are working as one unit without any issues.

Preparing for the next PI planning event: Even though the event is called out during the beginning of the last iterations/sprint of any PI, it is a contentious process with the following primary focus areas:

1. Management alignment and organizational readiness for next PI planning.
2. Backlog readiness. If it is not on the backlog, it is not going to get done. Everything we want to happen in the next PI should be on the backlog and should be in the "ready state" (the acceptance criteria, the milestones, the NFRs, etc. will be in place). For example, this includes the tickets that team members process through the system, be it enhancements, patches, environment migrations, infrastructure upgrades, and infrastructure migrations.
3. The actual logistics for the PI planning event.

Inspect & Adapt: Duration - 3 to 4 hours (at the end of every PI). Participants: All team members across all teams (from all the towers who have/are in the process of adopting Agile and DevOps), support, shared services, DevOps Product managers/Product owners, Scrum masters, release train engineers, and release management.

The PI is done when the PI time box expires (10 to 12 weeks). Each PI is followed by the final system demos wherein all the features, upgrades, enhancements, RFPs, current state, etc. are demonstrated. Essentially, the accomplishment is during the PI. The workshop helps to reflect, problem solve, and take on improvement across the entire program and incorporate the same as backlog item. It is at this time that the business value delivered by teams gets assigned the actual value delivered. The actual versus planned is calculated (in percentage) for individual teams and rolled up for the program. A band of 80 percent to 100 percent predictability is considered good and any swings for individual teams become a point to investigate the root cause and remediate it. The program predictability metrics are updated.

In this way, every ART improves during every PI.

Three different types of teamwork:

1. **Story-based teamwork.** The work that can be broken down into stories and has to have an established acceptance criteria and definition of done. For example, enhancements, new features, RFPs, infrastructure migration, enhancements, patches, etc. fall into this category and have assigned story points.

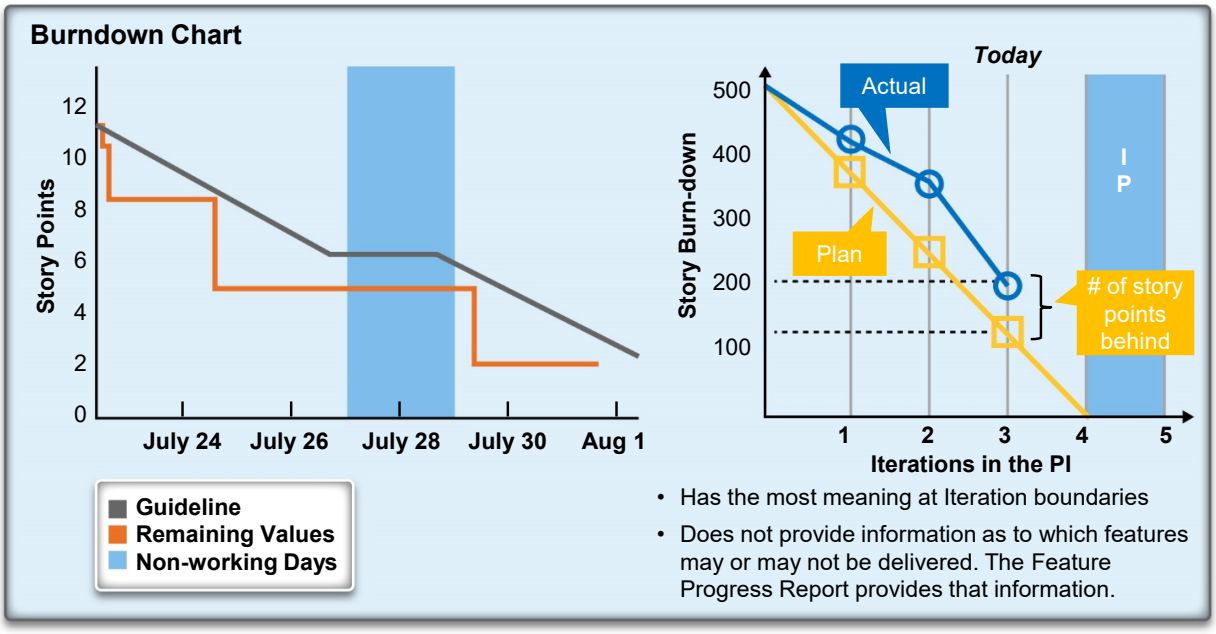
2. **Ticket-based work.** The work that has tickets associated with it (break fixes, open items from customers (like service requests)). It could be of differing severity or tickets that have been opened with a service provider (tracked as internal ticket opened for the break fix).

3. **Teams having a mix of story-based and ticket-based work** (for example, creating a functionality or enhancement for a given system and maintaining the current system).

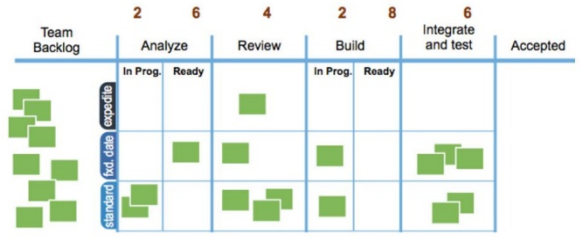
Across all three, they can be handled in two ways:

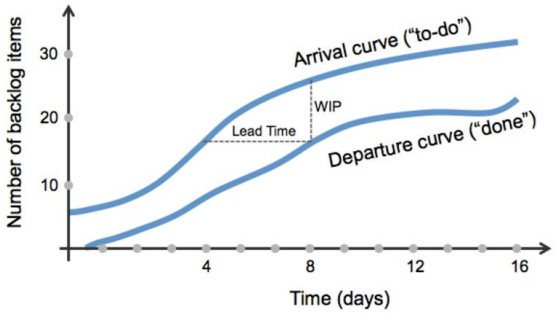
Scrum is a subset of Agile. It is a lightweight process framework for Agile work, and the most widely used one. A “process framework” is a particular set of practices that must be followed in order for a process to be consistent with the framework. A Scrum Board is a tool that helps Teams make Sprint Backlog items visible. The board can take many physical and virtual forms, but it performs the same function regardless of how it looks.

Scrum Board: Wherein stories are prioritized in a backlog by a product owner and team members size and plan the work during iteration/sprint planning. During iteration/sprint execution, they pull stories from top down using Agile principles. The **Jira** tool allows for all of these processes to happen and provides various team-level metrics to showcase planned versus actual in almost real-time. Many of the charts that help observe the same are burn down charts for the iteration/sprint, updated daily during or soon after daily standup. At the Program Increment level (PI), we will have a PI burn down chart showcasing the progress per PI.



Kanban Board: A Kanban board is a work and workflow visualization tool that enables you to optimize the flow of your work. Physical Kanban boards, like the one pictured below, typically use sticky notes on a whiteboard to communicate status, progress, and issues.





Kanban board lends itself to ticket-based and regular based work lending itself to principles of lean, making work visible, helping identify bottlenecks and providing mechanisms to handle the same through Work in Process (WIP) limits. For exceptions (like Sev1) provides for teams to focus on that, breaking the WIP limit and then going back to the tickets that the teams were working on. It also provides for a swim lane that has fixed dates (for example, monthly patches, quarterly patches, etc.) to be handled effectively along with capacity planning based on velocity within Enterprise Agile framework. The Kanban board is configurable, and here is one example of a Kanban board (Jira may have a different look and feel, but the core principles remain the same). The Kanban board has three classes of services. The expedite service is for things like Sev1 issues that need immediate attention and are normally allowed to violate the WIP control limit. The second one is fixed date, for example, patches to be applied on a cadence. If the fixed date is further down, you may take in fewer of those stories/tickets and thus do more standard work (enhancements, new functionalities, infrastructure upgrade, etc.). Based on the tools, one will get Cumulative Flow Diagram generated from the Kanban board, helping one to identify the velocity of flow. If the flow is low, one reduces the WIP (work in progress) limit.

Having launched the teams across all towers onto Enterprise Agile and DevOps, the continuing education is achieved through community of practice (CoP) to be established. CoP is a forum where folks will exchange their experience on what worked for them; any issues that they may have will be discussed there, and it can have cadence-based activities, too. This helps teams solve their problems and learn from each other within the context of City of Santa Clara.

Besides the CoP, the teams will have reach within Unisys' environment wherein we have our own forums like CoP, Agile continuous education, access to SMEs, and platforms like Yammer, wherein groups on particular subject matters exist with a treasure trove of knowledge.

DevOps Implementation Approach

Unisys will conduct DevOps transformation and transition activities that consist of four phases: Discovery, Align, Action, and Manage. In the Discovery phase, Unisys will perform an assessment of current DevOps capabilities to understand the City applications environment. The assessment process will cover the Technical Release Management, Environment Management, Test Lifecycle Management, Change Management, and Configuration Management. Unisys will then review the assessment information with the stakeholders to obtain agreement on the information received from the assessment activities.

In the Align phase, Unisys will make recommendations as a result of the information obtained in the Discovery phase. A roadmap and deployment plan for tools, processes, and capabilities will be created for the proposed DevOps architecture. Unisys will be implementing:

- Jira for workflow management
- Selenium for testing automation
- GitHub for source control management
- And Chef for environment and configuration management.

Jira is a proprietary issue tracking product. It provides bug tracking, issue tracking, and project management functions. It has been developed since 2002. For additional information on the Jira capabilities, please refer to this website. https://www.atlassian.com/software/jira

Selenium is a portable software testing framework for web applications. Selenium provides a record/playback tool for authoring tests without learning a test scripting language (Selenium IDE). For additional information on the Selenium capabilities, please refer this website. http://www.seleniumhq.org/docs/01_introducing_selenium.jsp

Git is version control software, which is used to keep track of changes to a file or group of files. Version control is usually associated with source code, but can be used on any file type. For example, a technical document may be placed in version control in order to keep track of changes made to the document. Version control can also be applied to graphics. You can roll-back to a previous version to keep track of the changes made on a particular file. For additional information on the Git capabilities, please refer this website. https://git-scm.com/book/en/v2/Getting-Started-About-Version-Control

Chef is both the name of a company and the name of a configuration management tool. It uses a pure-Ruby, domain-specific language (DSL) for writing system configuration "recipes". Chef is used to streamline the task of configuring and maintaining an organizations servers, and can integrate with cloud-based platforms such as Microsoft Azure, Amazon EC2, Google Cloud Platform, OpenStack, SoftLayer and Rackspace to automatically provision and configure new machines. Chef contains solutions for both small and large scale environments. Chef capabilities, please refer this website. https://www.chef.io/solutions/infrastructure-automation/

Unisys will begin the design, installation, and configuration of the software tools. Unisys will also recommend new processes and capabilities to be put in place so that the DevOps processes will run efficiently and have the appropriate roles and staff to support the new processes and software. Furthermore, DevOps will be aligned with the SAFe transitional activities since the DevOps function is an integral part of the SAFe methodology.

In the Action phase, Unisys will execute DevOps transitional activities to implement tools, processes, and capabilities based on the roadmap and deployment plan created in the Align phase. Also, DevOps staff will participate in SAFe activities, such as SAFe training and Program Increment sessions so that they will be able to support the ART and Agile teams. Furthermore, as applications changes proceed through application life cycle during the transition period, Unisys will validate the implemented tools and processes for effective and efficient delivery.

The Manage phase is about ensuring that the proper governance, processes, and structures are in place to execute DevOps so that the processes implemented during the transition will continue to run efficiently and effectively. Unisys will provide guidance for governance and processes during the transition period.

The approach to projects using Agile methods discussed in Section 4.1.d, where topics like transition tasks, roles, and milestones that are part of the SAFe methodology is described. To prepare for the transition to Agile, this section describes the Discovery, Align and Action phases of the Agile Implementation Approach, where topics like training, the Unisys Innovation Workshop and Program Kickoff are discussed. Also, current project processes will be used throughout the transition period until the Agile Release Train (ART) is launched, when the SAFe processes are executed. Likewise, current project tools will be used throughout the transition process until the ART is launched, when the SAFe processes will be executed, and the use of Agile tools such as Jira will commence. At that time, the pre-Agile project tooling can be used to reference any information needed during the transition.

e) *Enhance IT management and governance processes to ensure business and enterprise IT demands are understood, prioritized, funded and delivered effectively.*

Response

To enhance IT management and governance, Unisys recommends that the City transform its operational management approach into one based on DevOps and Agile. Unisys will lead the City through the transformation into DevOps and the methodology known as the Scaled Agile Framework for Enterprises (SAFe), which helps organizations to fulfill their business goals and objectives. SAFe provides the necessary flexibility to respond to ever-changing market needs, and it fosters business, technology, and operations to work toward one goal as one team. SAFe will propel the organization into a nimbler, powerful, customer-responsive organization. This framework drives organizational transformation with process, culture, capability, tools, and governance while delivering value streams with an improved reliance on delivery. Our solution will ensure enterprise IT and business demands are understood, prioritized and delivered successfully.

To support successful integration of DevOps and SAFe, Unisys will bring expertise in Organizational Change Management (OCM) to help the real change that is necessary in order for impacted team members to efficiently and fully engage in operating and governing this new framework. OCM is a critical part of the transformation; in accordance with our experience, it should not be underestimated. OCM delivers a framework to drive this change from top to bottom with the City and Unisys account team members.

f) Support the City's transparency objectives by delivering highly available, reliable and accurate information technology.

Response

There are two aspects to supporting the City's transparency objective. The first is outward facing and relates to the City Council's goal to provide an open government. To help provide an open government, Unisys will increase community engagement by making more information more available as appropriate on City websites. This will be part of the digital transformation that will use open data on City websites to make data more easily accessible to the community. Part of this transformation will be to make more City meetings (Council, Boards, and Commissions) available on the web by streaming video through social media channels such as Facebook Live and YouTube in addition to City websites, as is currently performed for some Council and Planning Commission meetings. Another part of this transformation will be the introduction of a public portal to provide easy access to City data. For example, the portal will have public information requests.

Although a good portion of the infrastructure needed to support these types of applications already exists, Unisys plans to further strengthen the current infrastructure with more storage and a fault-tolerant virtualized environment using VMware 6.x to offer true 24x7 availability of critical business applications supporting the City's Open Government initiative. This plan leads to the second aspect of the City's transparency objective, the inward-facing component. Unisys will provide City departments with a limited Service Catalog during Transition. Over time, additional service requests will be added that will identify the capabilities that the IT Department can provide and how those services are managed. The service level agreement or metric, along with dashboard information, will provide end users with enhanced transparency of services and performance information. In addition, the new system will allow users to enter tickets and track their status more easily. One last item for internally facing transparency will be the redesign of the City intranet (SharePoint) to allow more collaboration within departments and between departments and IT, as well as to promote use of team rooms and chat.

g) *Continue to invest and enhance core infrastructure capabilities in support of the City's business objectives.*

Response

With cities such as Santa Clara that face rapid change, it is crucial that the core infrastructure evolve in a way that is flexible and scalable to meet the needs of today and tomorrow. For 7 years, Unisys has brought a wealth of enterprise architecture design, best practices, and knowledge to the City and successfully migrated from a heavy physical server environment with little to no redundancy to a high availability environment at the server, network, data center, and Internet connectivity levels. We are the safe hands you know today and will continue to provide stable and secure services, but that is not the destination.

The Unisys infrastructure team will continue to bring this level of expertise and creativity, working hand-in-hand with the City departments, City IT leadership, and the applications team to further improve the environment to a more fault-tolerant capability. This will require moving faster toward the City's "Cloud First" strategy, adding to current systems and completing the Citywide Office 365 deployment. This will change how employees work and collaborate as well as extend the flexibility of working locations. The current infrastructure personnel at Unisys possess deep knowledge of the City's operating environment and culture. The team regularly generates new ideas and approaches to improve the performance, availability, and security of those systems and reduces costs to the City.

Unisys will also provide a suite of standards-based, best-of-class, integrated monitoring and management tools for Enterprise Compute, Network and Security Management. These will be both on premise and off premise and will monitor and manage the environment at the City as well as connectivity to remote providers such as cloud-based services. These new tools, together with refined processes and procedures that have been developed through our years of experience, expertise, and use of industry best practices, will enhance the City's infrastructure capabilities to more effectively meet its goals. Unisys is providing our Cloud Management Platform to the city to jump start their capabilities into the next evolution of compute on-demand services. The Unisys transformation mindset and vision is an area of great interest and investment for Unisys. Specifically, how it has developed, and technologically matured through innovation and thought leadership for the City to a point where business needs drive IT. This can come in the form of simple automation, autonomic IT management, automation to facilitate the new work space requirements, and expectations for the next generation of REGN employees (WPaaS) or any number of disruptive trends yet to be vetted and made available to our Clients. The automation and autonomic IT management are the cornerstones that Unisys is providing within our proposal.

h) *Ensure the confidentiality, integrity and availability of the City's data and information technology assets though Cybersecurity best practices.*

Response

Unisys will collaborate with city stakeholders to develop a cybersecurity program that addresses Confidentiality, Integrity, and Availability (CIA triad) of City data assets and systems. The security program will be based on the NIST Cybersecurity Framework. It will include annual assessments based on this framework, and we will use a risk-based approach to evaluate needs and make recommendations. Our risk-based analysis will leverage best practices from across our global security teams, in order to provide recommendations so that potential impacts from adverse events fall within acceptable limits. The scope of the risk-based approach will cover cybersecurity risks that affect City systems, employees, and citizens. In addition, our program and recommendations will include necessary controls to maintain PCI and SOX compliance requirements.

Confidentiality will be enhanced through the use of disk and transport encryption using current and standards-based encryption algorithms and processes. Integrity will be enhanced through the use of appropriate file permissions and role-based user access controls. Availability will be enhanced through hardware maintenance, bandwidth management, and redundancy with failover mechanisms, and established disaster recovery procedures. The CIA triad will be audited and reported on quarterly so that the City has an accurate and up-to-date picture of the state of the City. Our solution for the City will monitor the environment with the available tools, which include but are not limited to HP ArcSight, Nagios, and Zscaler. These tools are tuned to identify the security events that could affect the City, and they automate the flow of incidents so that the right teams respond to and eliminate threats.

2. *The City desires a service delivery model where the Service Provider's resources will provide both operational and project delivery support. How will you deliver on and manage to the expectation around people capacity for operational and project work?*

Response

Establishing a robust delivery framework that allows leadership to have visibility to operational and project work is crucial to ensuring high-quality, on-time delivery of projects and milestones as well as ensuring that priorities are aligned. Unisys will drive a transformation of the operational approach based on DevOps and Agile. These capabilities will drive continuous improvement, effectiveness, and efficiency of the business operations. The Unisys DevOps strategy is aligned with Agile and cloud technologies. It promotes strategic initiatives for development operations, cloud provisioning, and custom Agile development. It will deliver services that increase the effectiveness of the City's IT organization during the development and testing phases of project delivery. To provide support of major project functions such as testing and release, Unisys will use cloud or on premise resources, which will lead to faster delivery, better quality products, and application stability. The Unisys DevOps solution will also seek to improve collaboration and communication between development and operations teams by taking an Agile team approach. This approach encourages the involvement of the appropriate resources from various critical functions to create effective teams. These methodologies and the resulting industry-standard tools will provide the governance and visibility to our team's workload to promote effective decision making and more effective delivery and results related to daily operations, projects, and strategic initiatives.

3. *Describe you process for attracting and retaining talent for customer accounts, particularly in hyper-competitive labor markets such as the City's.*

Response

The key component is having our talent acquisition team prescreen candidates proactively by limiting the number of skills to those that are the most critical as mutually defined by City IT Department and the Unisys Team. The Unisys hiring team and City IT leaders can focus on the overall skill set and fitness for working at the City. It has been important to assess a candidate's motivation and rationale to work for the City and confirm that that the candidate has a solid track record of working collaboratively with others. Additionally, we plan to make continued improvements to our City-specific strategy for attracting talent through targeted recruiting with clear qualification prescreens, customized job descriptions, business intelligence, and executive sponsorship. The City's value proposition will be used to attract talent. Each Unisys associate supporting the City has to feel valued and believe in what he or she is doing. It starts with onsite Unisys leadership setting a positive tone and building team relationships. Unisys will use the Leadership pyramid framework building on core values, vision, and guiding principles. The benefit of keeping open communication and a respectful culture is that the IT talent whom we deliver to support the City will thrive and want to be here, in which will lead to high-performance support across the City's departments and successful mission outcomes.

2.0 Service Tower Solutions and Conformance with Statement of Work Requirements

Instructions for Solution Overview: *For each solution overview in the Service Tower subsections below, include the following common solution characteristics and description elements.*

a) *Proposed operational staffing approach (e.g., dedicated account staff, leveraged account staff, mix of dedicated and leveraged, onsite vs. offsite)*
b) *Applicable IT standards and certifications will you bring to the engagement with the City (e.g., ITIL/ITSM, COBIT, CMMI, ISO certifications, PMP), and how will they benefit the City. For CMMI, indicate your standard and what are you proposing for the City.*
c) *Proposed Service Tower tools approach, including whether Service Provider will be using City-provided or Service Provider-provided tools, and a description of what automated tools you are proposing for each Service Tower. Specific tools list to be provided in each SOW response section*
d) *Approach to support the City's range of service requirements from operation to projects and strategic initiatives.*

BAFO Summary of changes:

- The organization diagram changed for application tower responsibilities in order to focus on the importance of strategic initiatives.
- SIEM solution integrated with ServiceNow.
- Cybersecurity plan, roles, and more detailed solution.
- ServiceNow module solution definition and detailed process.
- Knowledge base management process.
- CMDB process and use of a SME. The Asset Management process.

2.1.1 Cross Functional Solution Questions

Instructions: *In addition to the General Solution questions in Section 4 above, Service Provider shall provide responses to each of the Service Tower specific questions below. Limit responses to each question to a half page.*

a) *Please provide your proposed approach for developing the following critical deliverables referenced in Schedule 3A: IT Strategic Plan, Information/Cyber Security Plan, and Communications Plan.*

In addition, provide a sample table of contents for each of these critical deliverables.

Delivery of these services will require collaboration with stakeholders within the IT department as well as in other City departments. Because the percentage of effort depends upon external variables that are not within our control, the effort is instead shown as a level of frequency. The intent is that these security functions become naturally woven into existing functions, except where the function is a specific security task itself, such as those tasks done once each year. The roles and frequency of need for these are listed in the following table:

STAKEHOLDER	FUNCTION INVOLVED IN	FREQUENCY
CIO	Establishing business strategies that security plan will align with	Annually
Department Heads	Meeting with security and compliance assessor(s) for risk assessments	Annually
Department Staff	Collaborate with Information Security to implement security controls that enable operations within accepted risks ranges	As needed
IT Services Manager	Deploy security awareness training to all employees	Annually
Application Manager	Incorporate security checklist in all new RFPs for SaaS and COTS	Ongoing
Network Security Engineer	Provide continuous firewall, router, switch, and wireless security management	Ongoing
Windows Admins	Participate in security assessments of Active Directory and GPOs	Ongoing
Email Admins	Keep spam and phishing protections enabled and updated	Ongoing
Backup Admins	Ensure backup tapes are protected	Ongoing
Desktop Admins	Respond to desktop alerts, identify anomalies, and remove malware	Ongoing
All Staff	Participate in annual security awareness training and stay vigilant of security risks	Ongoing

The following table describes key security roles, tools, and functions:

SECURITY FUNCTION	TOOLS	ROLES
Security Program & Governance	NIST Cybersecurity Framework	Security advisor Onsite Information Security Officer
Risk Management	Assessments	Annual assessment team, and penetration testing team
Physical Security at Customer Service Locations		Onsite Infrastructure team
Physical Security at Service Provider Service Locations	Annual SSAE 16 audits	Managed Security Service team
Security Integrity Advisory		Security advisor
Patch Management	Microsoft SCCM*	Desktop Managed Services

SECURITY FUNCTION	TOOLS	ROLES
Malware Prevention	Symantec AV* Microsoft SCEP (to be replaced)* Zscaler*	Onsite Server Administration, Desktop Monitoring Services
Security Information and Event Management (SIEM)	ArcSight	Managed Security Services team
Monitoring	SolarWinds* Nagios Cisco Prime Infrastructure* Kiwi Syslog*	Onsite network & security team
Incident Management	ServiceNow	Incident Management Services
System Administrative Privilege Support		Server Administration
Security Status Checking and Validation	DHS Qualys	Onsite Information Security Officer
Threat and Vulnerability Management	DHS Qualys	Onsite Information Security Officer
PROPOSED NEW TOOLS (dependent on CSC budget)	Penetration testing software Stealth Microsegment for PCI system	Onsite Information Security Officer
	Digital ID Email (Docusign) Tokenization of CC data	Onsite Server Administration
	Replacement Desktop AV Data Loss Prevention Incident response laptop kit	Onsite desktop support

** indicates that the identified tool is provided by the City.

The effort needed to accomplish the activities related to aforementioned roles is variable, depending on each activity.

Response

Unisys will assign key personnel with clear ownership of the plans for these critical deliverables, along with defining the methodology for developing and reviewing each deliverable, and obtaining signoff from the City. Critical deliverables will be clearly tracked to confirm that ongoing maintenance timeframes are met. The status, next step, and timeframes of the critical deliverables will become key components of ongoing overall account governance.

These plans will be driven by a methodical approach and follow a process that includes input from critical leaders across IT and City departments. They will also include input from Unisys subject matter experts as required. Unisys will adhere to the timeframes outlined in Schedule 3A for the initial creation, ongoing review, and updates to these documents. **Exhibit 2.1.1-1** shows a basic table of contents for each plan.

IT Strategic Plan	Information/Cyber Security Plan Deliverables	Communications Plan
• Vision and Mission for IT in the CSC • IT Strategies and Goals aligned with Future Business Capabilities • IT Shared Services Architectural Vision • High-Priority List of IT Initiatives on a 2- to 4-Year Roadmap	Perform risk assessment • Define scope that includes systems, stakeholders, and compliance requirements. • Understand current state of security controls (based on NIST Cybersecurity Framework) • Conduct interviews and perform walkthroughs of in-scope systems and processes • Perform SWOT Analysis (Strengths, Weaknesses, Opportunities, Threats) Determine desired capabilities and maturity levels Perform gap analysis Generate report that include: • Prioritized risk ranking • Capability assessment findings • Maturity assessment analysis • Remediation recommendations • Security action plan	• Communications Overview • Communications Methods and Audience • Communications Process and Workflows • Communications Framework • Communications Objectives • Impact Assessment • Target Audience • Communications Required • Areas of Responsibilities • Reinforcement Communications • Templates

Exhibit 2.1.1-1. Table of Contents for Critical Deliverables.

b) *Describe your solution for providing cross tower security for the City's environment, including Cybersecurity Plan development and maintenance process, tools you will provide/use, measures and maturity indicators you will provide, and IT security industry standards with which your solution will comply. Explain how the proposed Information Security Officer will help to achieve the City's cross Service Tower security requirements.*

Response

The onsite team will perform annual Payment Card Industry (PCI) assessments utilizing the self-assessment questionnaire provided by the PCI Security Standards Council. The onsite team will also use

security frameworks from National Institute of Standards and Technology (NIST) Cyber Security Framework (CSF) and SP800-53 and ISO 27001 as guides for security plans and recommendations.

Network monitoring, intrusion threat detection, and threat intelligence for the City's Managed Security Intelligence Services (MSIS) will be delivered from Unisys owned, operated, and staffed Security Operations Centers (SOCs) in Salt Lake City, UT, and Eagan, MN. These SOCs leverage ITIL, ISO 9001, and ISO 20000 Series international standards and best practices. Unisys conducts annual internal security assessments and facilitates external independent verification and validation (IV&V) audits to maintain our ISO certifications.

Unisys undergoes an annual internal security assessment by an independent auditor. The SSAE 16 audit report from this assessment will be provided to the City annually.

The Unisys security team is led by an onsite experienced Information Security Officer (ISO). Additionally, it includes 25% FTE support from our Chief Information Security Officer (CISO) advisory team, which complements the ongoing service of the dedicated ISO. Also, delivery of security services is dependent upon other IT positions, especially from the network engineers, Active Directory support, Anti-virus support, and web specialists.

The ISO will own the development and maintenance of the Cybersecurity Plan, which will be updated annually. The comprehensive Cybersecurity Plan will be based on the NIST Cybersecurity Framework (CSF) and provide standards, general guidance, policies, and procedures to mitigate threat exposure and to protect assets, data, employees, and facilities by securing the perimeter, applications, and websites.

Delivery of the stated security services requires the continued use of Unisys tools, such as HP ArcSight and Nagios, or equivalents, as well as CSC tools, such as Zscaler, Cisco Prime Infrastructure, SolarWinds NPM, and Kiwi Syslog.

Unisys will collaborate with the City departments to integrate security requirements in new initiatives and existing solutions.

ROLE	FUNCTIONS	AMOUNT OF TIME
Information Security Officer	Develops and maintains the cybersecurity plan. Analyzes and assesses vulnerabilities in the infrastructure (software, hardware, networks), employs available CSC tools and countermeasures to remedy detected vulnerabilities. Investigates and utilizes new technologies and processes to enhance security capabilities and implement improvements. Tests for compliance with security policies and procedures. Assists in the creation, implementation, and/or management of security solutions. Performs security monitoring, security and data/logs analysis, and forensic analysis, to detect security incidents, and mounts incident response.	Onsite, 40 hrs/week
Managed Services (SOC)	SIEM monitoring & reporting, A/V & Malware monitoring	24x7x365

	& reporting	monitoring
Risk Assessment	Risk management process	Annually (6 week process)
Penetration Tester	Test a selected web application and provide detailed report. One per year will be performed by DHS agreement and others by Unisys pentest group.	Annually
Incident Response Testing	Wargaming/Table-top exercise	Annually (1 day)
Independent Audit of Unisys	SSAE 16 audit report on Unisys internal processes will be generated from an independent assessment, and this report will be provided to CSC.	Annually
Security Advisor	Security program oversight. Validation of network, server, email and web application security. Evaluation of results from Unisys security delivery groups.	Partial (25% FTE)

c) *Describe your solution for providing integrated Security Information and Event Management (SIEM) services across all Service Towers.*

Response

Unisys will manage the City's Security Information and Event Management (SIEM) system, which is based on the HP ArcSight platform. This management will include weekly tuning of alerts as warranted to look for changing threats or indicators of attack. Real-time correlation is enabled, which identifies and alerts to true threats. The Flexible Architecture allows integration with incident management systems and it will be integrated with ServiceNow when that solution is deployed. The managed solution also includes maintaining the same level of capabilities, the same number of data sources (57 data sources listed in **Exhibit 2.1.1-3**), and the same monthly reports. Using the SIEM Deployment Maturity Levels depicted in **Exhibit 2.1.1-2**, the city is at a deployment maturity greater than level 2 and below level 3. These deployed capabilities will be maintained via the managed service.

Some benefits of HP ArcSight that are listed on the HP website, and that were asked in the RFP, such as "Non-stop security compliance" and "Security information ecosphere," are aspirational capabilities. Delivery of these capabilities in a comprehensive manner would be dependent on more data feeds, wider integrations, and add-ons that are not part of the existing solution.

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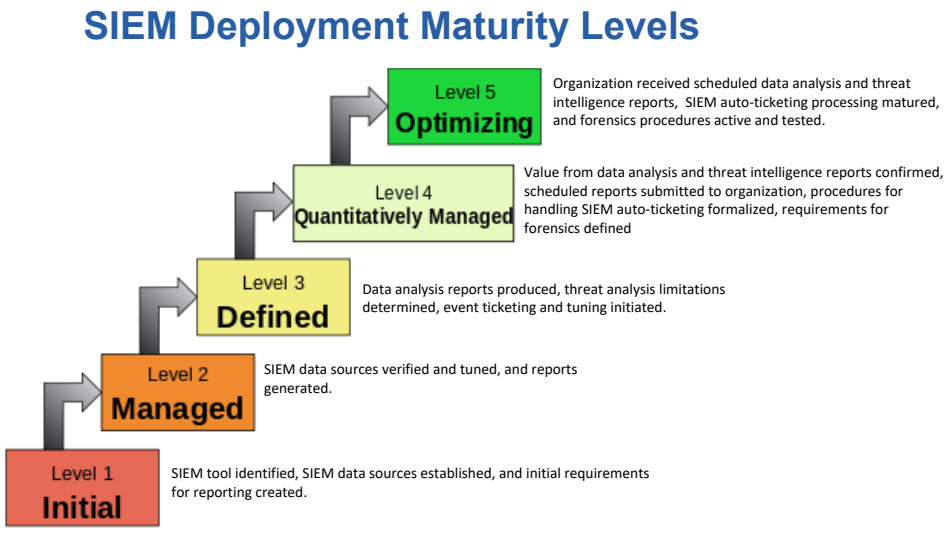

Exhibit 2.1.1-2. Deployment Maturity Levels for SIEM.

EXHIBIT 2.1.1-2 CONTAINS REDACTED MATERIAL OF A SENSITIVE NATURE REGARDING CITY INFORMATION TECHNOLOGY SYSTEMS

Exhibit 2.1.1-3. Device List for Security Information and Event Management.

d) *Describe your solution for providing training to City End-Users, including initial services training (e.g., rules of engagement, how to request services, new End-User accessible Service Provider tools and interfaces), ongoing training for new applications or services. How will you incorporate knowledge of the City departments' unique environments into your training solutions?*

Response

Unisys will work closely with the City in implementing training and knowledge that is readily accessible and easy to use. We will implement best practices in the creation, acquisition, and sharing of knowledge. Our team will use the ServiceNow End-User portal and a SharePoint site accessible from the City's home page to serve as portals for gaining access to training resources.

Unisys will compile a robust repository of classes and knowledge transfer documents to accommodate the City's many different business requirements. Unisys will develop training specific to particular departments and business functions as it pertains to the City End-Users primarily from the knowledge base system, as described herein. Furthermore, any lessons learned from End Users will be included as part of new training.

Unisys will implement the processes required to develop and maintain high-quality training material that is current and relevant. Changes made to the technical environment must be reflected in the training material and supporting documentation before implementation. Stakeholder approval of new training programs will be acquired before they become available. The Unisys knowledge transfer team will meet with each of the departments twice a year, as part of our road show cadence, to educate them on the tools, interfaces, rules, and services available to them.

e) *Describe your proposed approach for training and certifying Service Provider resources (including any proposed subcontractors), in order to ensure your resources have an intimate understanding of each City department's business and End-User profiles.*

Response

Associate training and development at Unisys is mandatory, comprehensive, and ongoing. For the skills and knowledge required to support the City, Unisys will assign associates who are well qualified for those positions and provide training for additional or updated skills and knowledge that will be needed throughout the engagement's life. We will also work with the City to establish a critical training document that captures detail of the various departments end-user profiles. This document will become a key component of associate training. To execute our approach to training, Unisys follows these guidelines:

- Confirming that associates have the necessary qualifications and certifications to perform their daily tasks. For example, Unisys University is available for skills such as ITIL and business acumen best practices.
- Providing access to Unisys or external specialist skills and training when needed
- Leveraging the City knowledgebase, which is updated continuously
- Using SharePoint repositories and file shares with documentation such as application, installation instructions and project documentation
- Encouraging cross-functional knowledge transfer between groups and individuals by having teams work with each other and sometimes embedding staff across IT groups.

f) *Describe your proposed solution for Customer Satisfaction Surveys, including annual End-User satisfaction, department management satisfaction, and Business Analysis services satisfaction. Describe the process for developing City-approved surveys, conducting surveys, survey reporting, and identifying and addressing areas of customer dissatisfaction.*

Response

The City requires Customer Satisfaction (CSAT) Surveys that drive continuous improvement in the quality and value of service delivery. The Unisys CSAT Program is a strategic, action-oriented, and disciplined initiative. Critical points in our CSAT Program are as follows:

Voice of the Customer: A program designed on survey responses and direct client feedback to bring continual visibility and emphasis to the customer experience. An independent third-party group will drive this survey to capture the satisfaction of City IT leadership with Unisys performance.

End User Satisfaction Survey (Ongoing): Ongoing end-user survey to assess the quality of Service Desk and Field Service delivery. These surveys are triggered upon closure of tickets in the Information Technology Service Management (ITSM) system. The system has control points to maintain an increased response rate and minimize survey fatigue. It includes follow-up tracking of low survey results.

End User Satisfaction Survey (Annual): Annual survey of end users to determine overall satisfaction with the services delivered by the City IT Department.

Departmental or Project-Based Surveys: Point-in-time surveys designed to measure satisfaction with specific projects or to gain specific insight from certain departments after key initiatives or projects are completed. These surveys are created and driven as needed by the ITSM platform.

Except for the Voice of the Customer survey, Unisys will recommend a best practice approach to a survey's questions and administration. We will then collaborate with the City to finalize the survey questions and confirm the audience and process to administer the surveys.

Unisys deploys a process depending on the survey type to review and analyze the results as well as trigger the appropriate action plan based on the survey's outcomes. For example, the Ongoing End-User Surveys include a mechanism to flag poor response for immediate follow-up by Unisys key leadership. We document survey follow-up activity and establish corrective action plans established, as required.

Unisys will review annual, departmental, or project surveys as well as identify specific action items and add them to our Continual Service Improvement and Innovation Plan (CSIIP) for tracking and implementation. Follow-up on surveys is crucial; Unisys understands the importance of this part of the process to build trust with the end users and department leaders.

g) *For the department management satisfaction and Business Analysis services satisfaction surveys, describe how you would structure these surveys to focus more on related strategic/quality analysis of the provided services and how effective IT has been on positively impacting the business.*

Response

Understanding the City IT Department's impact on the business is a crucial part of assessing the overall view of IT from key City leaders. These surveys need to be well written, properly targeted, and properly promoted. Unisys will work with City IT leadership to develop the list of questions to capture the responses from department leaders that accurately reflect the impact that the IT Department is having on the City's business. This list will include questions related to the following topics:

- Level of understanding of the departments' critical goals and objectives
- Ability to translate goals and objectives to requirements and initiatives
- The effectiveness of key applications in meeting the department's needs
- Ability to create and share IT roadmaps for applications that supports the departments' goals
- Effectiveness in communicating key initiatives and their status, progress, or issues
- Overall value of the IT Department in meeting the department's annual goals.

These survey questions will be refined and approved with key IT Department leads to maintain alignment. Survey results will be gathered, and an action plan will be added to the CSIIP to drive continued progress.

h) *Survey response rates for the City's current annual Customer Satisfaction surveys are low and the City feels the rates need to be improved. What specific approaches or techniques would you use to increase the rates (e.g., (survey length, survey formats).*

Response

Improving response rates to the City's annual Customer Satisfaction surveys requires multiple approaches. The following techniques can be used to address the Annual Customer Satisfaction Survey and other surveys such as ongoing end-user surveys:

- Confirm that the invitation is inviting and reminds the users of the circumstance that drove the survey
- Reduce the number of questions to only the critical few that are really needed to drive action
- Verify that the questions are concise and easy to understand, and use a scale that makes sense
- Verify that the survey is available on the employees' desktops, laptops, and mobile devices

- Promote the survey by creating a standard communication that not only can be sent by the CIO, but also considers supporting messages from the City Manager and department leaders
- Verify that results are published along with high-level summary action plans for the areas that need improvement. This builds confidence that the surveys are taken seriously.

Unisys also recommends evaluating the survey questions in accordance with the concepts of unipolar versus bipolar, which can help improve a user's interest in completing a survey. A unipolar survey measures one characteristic or trait by differing levels. They typically range from the lowest possible level to the highest possible level. For example, "How efficient was the Unisys Service Desk Agent in solving your problem?" Choices are Extremely Efficient, Highly Efficient, Moderately Efficient, Somewhat Efficient, and Not Efficient. In this example, any response is valid and provides insight into the client experience. When using a unipolar survey, avoid using numbers and avoid using a scale of more than five levels. A bipolar survey measures different (often opposed) characteristics or traits. For example, "How would you rate your experience with the Unisys Service Desk Agent?" Choices are Very Good, Good, Neutral, Bad, and Very Bad. In this example, a neutral response has no meaningful value and provides no insight into the client experience. For bipolar surveys, the best practice is to use a four-response option survey, removing the neutral option (Very Good, Good, Bad, or Very Bad).

The Unisys preferred position is to use unipolar survey questions because they provide higher granularity. They are also aligned with research that suggests a five-level scale gives people the best choice range. However, if our clients want to use bipolar survey questions, the Unisys preferred position is to use a four-point scale with no 'neutral' option. Last, we recommend providing the user with the option to enter natural text because it allows analysis of natural language.

i) Describe how your solution incorporates DevOps principles into your standard IT services lifecycle, from design through the development process to production support.

Response

The City requires the incorporation of DevOps principles into its standard IT services life cycle, from the design stage through the development process to production support. This is important because applying DevOps principles will bring cost and quality improvements to the City. Unisys will provide DevOps services that are executed from design through development, testing, release, and production support of IT software and application projects. The Unisys DevOps solution aims to break down silos between development and operations, driving collaboration, communication, and integration. This is executed in the standard IT services life cycle by taking an agile development approach. We also promote the involvement of the appropriate stakeholders and resources from various critical functions to create effective teams for project efforts. Additionally, this solution promotes the DevOps goals of continuous integration and continuous delivery. Unisys will implement IT standard software tools as part of this solution. We will validate application changes and integrate them in a continuous process. Changes will be driven by a pipeline approach and delivered to the appropriate environment from development through test and to production in an automated way. The workflow software will give stakeholders the ability to create agile projects and monitor activity as projects are processed from the design phases and throughout the request life cycle. Automation in areas such as testing life-cycle and environment management will be used to improve delivery speed, improve quality, and bring cost improvements. Last, with increased collaboration between development and operational teams, support for production issues will be addressed promptly by assigning the appropriate resources to bring resolution to outstanding issues quickly. These processes are tightly aligned with Scaled Agile Framework for Enterprises (SAFe) development practices and with current DevOps capabilities.

j) Describe your solution for providing the City with single integrated portal access to the ITSM Suite and its constituent modules, including portal platform, content, City and third party accessibility, system queries, standard and custom/ad-hoc reporting capabilities and process for maintaining and regularly updating portal information over the term of the Agreement. Explain how the portal will provide the cross-functional data and capabilities listed in Schedule 3A (e.g., Procedures Manual, receipts for purchases made on the City's behalf Service Provider contracted Service Levels, knowledge bases, frequently asked questions, inquiry and reporting access into the asset management system, and an end-user interface for Incident ticket entry and status tracking all third party provider documentation (including Service Levels), Customer-provided third party documentation, Service Provider Services reporting).

Response

The CSC ServiceNow ITSM solution modules include those in **Exhibit 2.1.1-4.**

Solution Name	Process/Function Supported	ServiceNow Service Automation Platform
Service Desk Optimization*	Incident Management	Incident Management is the creation of incidents through self-service, chat, email, phone calls, events, and integrations. Categories help organize incidents and route them to the appropriate group.
	Problem Management	Problem Management seeks to remove the causes of incidents permanently from the IT infrastructure. Problem management helps to identify the cause of an error in the IT infrastructure that is usually reported as occurrences of related incidents.
	Knowledge Management	Knowledge Base application provides role-based tools to create, store, and publish important information. It also provides tools for all users to find and view the information as needed. Contextual search is enabled throughout the platform, fully accessible from the ESS for self-healing. For additional details, please see clarifying response in Section 2.1.1.m for details.
	Enterprise Self Service Portal	Unisys will enable the Employee Self Service portal for CSC. This includes the following: • Deploying the base landing page for CSC logo, branding, image, tiles, primary bar, home page carousel, utility bar, and footer • Implement 3 personas: End user, Ops Management, and Executive • Enable one Knowledge Base, as documented in Section 2.1.1.m • Demonstration of the ESS functionality.

Solution Name	Process/Function Supported	ServiceNow Service Automation Platform
	Service Request	Service Request Management supports the process with capabilities to raise requests, assign to appropriate groups, automate escalate, and manage through to fulfilment and reporting. Unisys will activate and configure the Service Request Management module and implement one Basic Service Request and One Incident form, to be available in the Service Catalog. Parameters for a Basic Service Request are listed in the Platform Management Support section below*. • Additional creation of SRs is scoped as Basic and is included in Platform Mgmt Support (see Platform Management section below*) • Additional SRs that fall under the Med and Complex category are priced per SR and can be submitted as a CR.
	Service Level Management	Service Level Management enables the automation and monitoring of SLAs against IT processes. SLM measures service delivery and operational performance against service level and operational level agreements.
	Satisfaction Survey	The survey feature allows the creation, sending, and collecting of responses for basic surveys. Unisys offers a standard survey functionality based on closure of Service Requests and Incidents. The requester is notified through email to respond to the survey. Each request/incident generates a separate survey. Questions and rules for surveys will be based on Unisys best practices, in conjunction with CSC's oversight and approval. The minimum number of days that pass will be determined to avoid sending too many surveys. Unisys will include up to 5 additional surveys as required by CSC. Design and functionality will be a joint effort mutually agreed and as directed by CSC.
	Password Reset	Password reset enables end users to reset their own passwords using self-service and automation. The Service Desk assisted password reset feature is an alternative approach that provides a streamlined process to quickly fulfill password reset requests. Unisys will develop an orchestration workflow for the password reset functionality to one back-end credential store, i.e., AD.
Service Governance*	Change Management	Change Management will manage and deliver change more effectively. It will reduce service outages and minimize the potential for adverse impact to business operations. Inbuilt collision detection and change calendars will help to schedule changes at the right time.

Solution Name	Process/Function Supported	ServiceNow Service Automation Platform
	Release Management	Release Management includes the planning, design, building, configuration, and testing of hardware and software releases to a defined set of release components. It also can be effectively used to coordinate releases as a vehicle for planning release and once a release is finalized, a Change item can be generated.
Configuration Management*	Asset Management/CMDB	The CMDB will serve as the single system of record for all applications, processes, and infrastructure data. It is a single data model with accurate data acquisition through Discovery of known and unknown CIs and integration to SCCM. Built-in data reconciliation and normalization will ensure consistent and accurate data. Asset Management tracks the financial, contractual, and inventory details of hardware, software, and physical/virtual infrastructure, as well as non-IT asset (if applicable) throughout their life cycle. Asset requests are handled using workflows and maintenance activity is recorded by Asset Management.
Enterprise Integrations	Discovery** implementation	Unisys will deploy the Discovery module for the in-scope servers. Included with the service is the configuration of the MID Server***, Discovery module with appropriate schedules, testing, and validation. **ServiceNow's Discovery module finds applications and devices on the network, then updates the CMDB with the information it finds. ***The MID Server is a Java application that runs as a Windows service or UNIX daemon. It facilitates communication and movement of data between the ServiceNow platform and external applications, data sources, and services.
	SCCM integration	Unisys will configure the ServiceNow SCCM connector to synchronize into the CMDB. Included with the service is the configuration of the MID Server, SCCM connector, testing, and validation.
	Nagios integration SolarWinds integration	Unisys will configure Nagios and SolarWinds events and integrate them with the ServiceNow instance for automatic incident creation. Testing and validation will also be conducted.
	HP ArcSight integration	Unisys will develop and implement an integration between HP ArcSight and the ServiceNow instance. Testing and validation will also be conducted.
Support	BAU (Business as Usual)	This maintenance service includes break/fix and installation of version upgrades and patches for the application.

Solution Name	Process/Function Supported	ServiceNow Service Automation Platform
	Platform Management Support	This service includes Level 2 app and admin support, Level 3 engineering/dev support, and regression testing services. The Platform Management Support also includes more advanced configuration and minor customization work, up to 40 hours a month. Unused support hours do not carry forward. Included with the Level 2 administration support listed above, up to 10 basic service requests (not to exceed 8 hours per month) can be created. *A basic service request is defined as: • Fewer than 10 questions • Static question flow (no conditions) • Simple fulfillment (1–2 similar tickets and no conditional fulfillment) • Minimal mapping (access SR to see questions/answer) • Standard Notifications • Standard Approvals • Standard SLAs.

Exhibit 2.1.1-4. ServiceNow Solution Modules for CSC.

While the City has been through the onboarding process on the Global ITSM system, we will go through the module configuration workshops* again, as shown in **Exhibit 2.1.1-4**. Workshops for the ITSM functional modules, as noted in the above table, will be conducted once during the Process and Design phase. This is to allow CSC to validate/change the design from the Global ITSM system. All module configuration workshops follow a similar format; durations will vary depending on the module.

Through a workshop and interviews, Unisys will present our best practice processes and component methodology. From this process, we will define a set of requirements and an implementation approach. Unisys will then install the updated workflows into the ServiceNow dev/test environment, validate the results, and then deploy into the production environment.

At a high level, Unisys will:

- Examine your provided existing process documentation (if available)
- Evaluate the results of the interviews and process documents against our best practices
- Capture CSC's specific requirements as they relate to the functional modules supporting CSC's business processes
- Prepare and present an implementation and deployment project plan
- Prepare and present a design document, to be approved by CSC prior to implementing to the platform

- Implement the updated workflow processes, data tables, data interfaces, UI components, business logic for the specific modules in your ServiceNow development/test environment
- Identify and resolve process and UI discrepancies discovered
- Incorporate approved processes, data tables, and UI components in the production environment
- Effort will be conducted in the development instance first, then testing in the UAT instance, and finally pushed to the production instance
- Provide one train-the-trainer session on the new functionality, supported by a slide presentation.

Note:

- All onboarding workshops during the Process and Design phase, as noted above, will be performed remotely unless onsite meetings are specifically ordered by CSC.
- Workshops do not include process discussions or ServiceNow module training.

k) *Explain your proposed ITSM Suite dashboards solution (including an executive dashboard for City executives) and how it will support the execution of responsibilities of key Service Provider and Customer roles and governance bodies and meetings. What specific elements would you propose to include in such dashboards, including elements that address measures of service quality?*

Response

The Unisys solution is based on the ServiceNow platform and the deployment benefits from the expertise that Unisys brings from our deep working knowledge of the platform. The Unisys tuned ServiceNow platform is known for its powerful dashboard and reporting capabilities, which will be crucial to support core governance meetings. The application provides many out-of-the-box gauges, dashboards, and report templates that are instantly available to use. Standard and custom-created reports and dashboard items can be displayed on home pages and run on demand. Reports can also be scheduled and sent to users and groups at regular intervals as attachments or can be exported to web pages. This enables wide publishing of reports without sending large attachments to multiple users.

The reports and dashboards were enhanced from Unisys best practices across the different processes. This rich content can easily be leveraged as a starting point for custom reports that City departments may wish to create. Unisys leverages the in-platform data and analytics to maximize the platform's power and will continue to strive for continual service improvements.

City users can create additional metrics and surveys to collect more data and present subsequent results in interactive reports and dashboards. A simple and flexible reporting engine allows users to quickly generate, customize, and save reports directly from a list of records with a simple right-click for instant analysis. To personalize dashboards, users can drag and drop gauges and reports to highlight the most important information to them. Incident Management includes a version of ServiceNow Performance Analytics that provides many predefined key performance indicators (KPIs), breakdowns, and the ability to visualize the past 180 days of data.

With the ServiceNow Helsinki release, a refreshed and enhanced set of reports and home pages is available for the applications (Incident Management, Problem Management, Change Management, Request Management, etc.) Additionally, this release contains more than 50 dashboards and 425 different visualizations for Service Management, IT Operations Management (CMDB, Event Management), and Security Incident Management.

The Unisys transformation team will configure the ServiceNow dashboards and program reports required to effectively support the various levels of governance that the City requires to support the program. These reports include key Service Level Agreement (SLA) metrics; quality metrics; operational metrics such as backlog, aging, and priority tickets; and other key analytical metrics that help to identify "shift best" or other opportunities to drive improvement.

l) Describe how your solution will address the service requirements and Service Levels associated with providing the city with periodic reports around operation improvement recommendations and innovation through new products and services. Explain how you will address unique attributes and considerations for each City department in making such recommendations.

We report on article usage stats and comments received, and review/analyze the articles linked to tickets created. Our Knowledge Manager analyzes this data along with data on resolution rates and will work with Unisys groups and client SMEs to address any opportunities to increase resolution and/or reduce handle times. The reporting built into ServiceNow along with reports that our Unisys quality department produces allows Unisys to quickly drive to a root cause of any resolution issues and also identify opportunities to further service desk resolution opportunities. As ServiceNow is built upon KCS principles (Knowledge Centered Support), the structure of the database is already correlated to best practices and allows us to further drive excellence in the Knowledge space.

Response

Service improvement and innovation are crucial to the City's success. Doing them successfully requires not only a continuous improvement and innovation mindset but also a structured approach for tracking these ideas from start to finish. The Unisys solution will establish an approach that meets the City's requirements for reporting on operations improvement recommendations and innovation. The approach is known as the Continuous Service Improvement and Innovation Plan (CSIIP). This process is a formal way to identify, review, prioritize, and track improvement and innovation concepts from start to finish. This approach will enable Unisys account leadership to align with City leadership on activities that are approved, funded if required, prioritized, and launched. The process can be tuned to capture departmental impacts to prevent the team from missing out on key departmental improvements.

This process relies on the efforts of key team members and on overall system metrics. The different system components must come together into an effective view that leadership can rely on and use to measure performance and identify opportunities to drive operational improvement and innovation ideas. The Unisys solution will enable a Service Level reporting approach that allows performance to be tracked at the required level of detail. This approach includes SLAs related to the Service Desk, Field Services, Infrastructure, Applications, and Project milestones. The ServiceNow platform can be configured to allow the team to look below an aggregate SLA to see how performance is occurring at a department level so that unique actions that might affect a specific department can be identified.

When service improvement measures are not represented in service data, Unisys will augment that data with surveys or other data collection methods that are tailored to the service. Identification of the service improvement recommendations will be determined through periodic outreach to individual departments or groups with common interests. Exposure of new technology with potential for service improvement will be made part of periodic departmental gatherings that are patterned on product user group meetings and

active participation in key product meeting and conferences. We will capture the recommendations and actions as part of our CSIIP process that will track our continuous improvement and innovations actions throughout the year.

m) Describe your proposed knowledgebase solution and how you will drive its use across City End-Users as well as Service Provider staff.

Response

The Unisys proposed Knowledge Management solution will reside within the ServiceNow platform. It is configured to address both "how to" and procedural questions and will reflect views that correspond to a user's access level. The articles will be maintained by a Unisys knowledge manager who will respond to user feedback, work with resolver stakeholders, and read survey and quality analysis data with the operation to receive feedback on knowledge artifacts.

Unisys will develop knowledge articles and documentation to handle issues that are high call drivers during the implementation, by the Transition Knowledge Manager. In addition, we will also address issues that are identified by our team and CSC's SMEs as being important to deliver (high urgency and/or impact). We will partner with CSC contacts to identify who should be consulted to develop the list of important problem types and will develop a process to identify any ongoing knowledge gaps so that the knowledge manager can work to create any documentation that may be missing on an ongoing basis. We have an extensive knowledge base of standard articles (COTS) available in our ServiceNow instance that *will be* available in Istanbul.

The Transition Knowledge Manager will drive processes and will work with the operation team and CSC SMEs to make sure that any pain points are addressed from the transition kickoff through Hypercare. The steady state KM will continue to maintain and develop the changes in knowledge in partnership with any identified CSC SMEs. This work cannot be done without consultation with CSC resources, as identified by CSC's transition team.

Steady state KM's hold meetings on an agreed-to schedule to discuss normal changes and the progress against them. They will also discuss strategies for improving article usage and first call resolution through identifying proceses the service desk can perform to avoid dispatches or referrals to client resolvers – this effort is perfomed in consultation with operational resources and with client SME's. A set of standard reports produced against knowledge-centered metrics gives the KMs and the delivery teams information about how best to deliver services and to maximize L0 and L1 resolution.

In summary, for the Knowledge Management transition, Unisys will provide the following:

- The top 10 call driver articles
- The top 10 processes with a high urgency and/or impact
- The top 10 "how to" articles

- The top 10 procedural articles
- The top 10 Unisys-driven processes to support service delivery.

All of the above will be driven by the Transition Knowledge Manager with a current ticket dump that includes product types, “how to” or instructional data, product types, etc.

n) Describe your proposed solution and approach for providing cross-functional Service Integration Services described in Schedule 3A.

Response

Unisys proposes providing the City with an Enterprise Service Management platform, wrapped with end-to-end services and support. Our overall Service Management solution includes a new ITSM platform based on ServiceNow. This new ITSM platform, along with the current infrastructure and security monitoring solution, enable the Service Integration Services described in Schedule 3A. The ServiceNow platform will be integrated with existing infrastructure monitoring tools and the Unisys SIEM solution to establish a comprehensive monitoring capability for the City’s environment. Automated flow of critical alerts into the ITSM tools as incidents is a key feature; these incidents will be routed with the proper priority to the appropriate resolution teams, including third parties that use the system for resolution. This enables an end-to-end integration of the key components to maintain reliable, high-quality delivery.

The ServiceNow platform has industry best practices for reporting capabilities. This includes various time stamps along the way for incidents and requests to enable analysis to be accomplished at various levels to look for opportunity. Reporting on response and resolution times is a key component that will enable the City to understand the speed at which services are delivered to City employees. The platform also provides a portal that will contain knowledge articles that are available to resolver teams and end users to enable information to be shared in a way that drives a better experience.

The Unisys solution and operational processes are based on a comprehensive set of ITIL-aligned processes for the ITSM functional modules. Our ITIL-aligned processes are certified to ISO 20000, which means that the processes are regularly audited and updated to provide compliance with highest quality standards. Therefore, the City will benefit from a Service Management framework that represents industry best practices.

o) *Describe how the Enterprise Architect key position will drive value chains across the City's IT environment and what core competencies and methodologies you will bring through your company's expertise in this area?*

Response

The Enterprise Architect will drive value chains across the City's IT environment through the delivery of Five Critical Deliverables, including the IT Strategic Plan (ITSP), the Enterprise Architecture Plan (EAP), The Digital Government Plan (DGP), Innovative Products and Services Report (IPSR), and the Services Strategic Review Report (SSRR).

The Digital Government Plan and the IT Strategic Plan will start with establishing the business goals of each department in terms of the City's Mission and Vision through a series of focus group meetings. Drawing upon strategic planning methodologies developed by Gartner and the Meta Group, the ITSP will align business goals, driven by the City's Mission and Vision, to enabling technology components, to create a Future State vision. Gaps between the Current State and the Future State then become the building blocks of future projects which will be prioritized based on technical sequencing, expected value, maturity (adoption readiness), and budget. The EAP will take the conceptual picture of the ITSP and determine requirements based on a framework of architectural domains. By using an EA framework to establish requirements, we ensure that new capabilities are introduced that interoperate with existing systems. Development of the City's EAP will draw upon formal frameworks such as Zachman and FEAF, but at a higher abstraction level to reduce the cost of maintenance and sustainability of the EA program appropriate for a city the size of Santa Clara. The ITSP and the EAP form the foundation for governance of the investment in IT based on business goals aligned to the City's Mission and Vision.

The IPSR will be developed by monitoring industry trends and ideas from other municipalities. The Enterprise Architect will use the IPSR to engage City departments to expand awareness of how technology can be used to realize their business goals. This increased engagement in the identification of future change elements will aid in driving adoption of new capabilities and technologies. The SSRR gives the Enterprise Architect the opportunity to monitor progress toward the realization of business goals, and provide suggestions for remediation of adoption risk. Success metrics introduced in the ITSP will form the basis for this assessment.

The Enterprise Architect will drive value by establishing a clear roadmap of technology enabled capabilities that are aligned to business goals that have been developed through diverse engagements with City departments.

p) Describe how you will ensure cross-Service Tower collaboration to ensure that the Service Provider is delivering IT services in a holistic, integrated fashion.

Response

To enhance cross-service tower collaboration, we will transform the environment to one that is driven by DevOps and Agile (the SAFe methodology). Unisys will first properly baseline the performance and efficiency using clearly defined and granular work type items. Each resource will account for their time, which is categorized into operational and project types. Unisys will also bring Organizational Change Management expertise to enable communication and training plans to be developed to further foster the successful adoption of these practices. These methodologies will be the cornerstone of encouraging cross-service tower collaboration in a climate of change and growth. This holistic and integrated approach will establish a climate that provides a solid foundation for clarity, ownership, shared outcomes, and increased productivity.

Unisys will continue to leverage daily tower checkpoints to verify that everyone is moving toward shared goals, has full understanding, and is accountable for his or her areas of ownership. Additionally, tower leadership meetings will review daily progress and provide further opportunities for adjustment. Metrics will be compared to the baseline to show improvement. Furthermore, project plan milestone dates will be evaluated for change.

2.1.2 Cross Functional Solution Overview

Instructions: *Provide an overview of the Cross Functional solution you propose to address the City requirements stated in Schedule 3A. Incorporate responses to common solution characteristics and description elements listed above. Limit 5 pages.*

Response

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- Service area roles
- Dedicated on site staff
- Leveraged staff
  - Onsite vs. offsite
  - Functions to be performed
- Provider COEs or other Service Provider groups e.g., innovation councils
- Split between keep the lights on operations, proactive improvement operations, and projects
- Level of effort assumptions included in proposed pricing for each of the following areas:
  - Operations
    - Keep the lights on operations
    - Proactive improvement operations
  - Projects

The staffing model elements include roles dedicated or leveraged staffing, splits, COEs, councils, and operational or project effort. They are similar for both the City Approach and the Provider Approach. The clarification for each of these elements is in each section (e.g., 2.1.2, 2.2.2., 2.3.2, 2.4.2, 2.5.2), and included in other applicable sections. Furthermore, definition and clarification of split effort, for both approaches, are in the pricing worksheets.

Unisys has a deep understanding of the essential requirements to design and implement an ITSM platform for our customers. We have developed our own best of class toolsets by introducing proprietary processes and configurations. This deep knowledge and experience is transferable to CSC and is included with our solutions. Our methodology focuses on using highly maintainable configurations of the ServiceNow platform, which means customization is very minimal, if at all. This approach also enables integrations to be created to your external infrastructure systems, through orchestration and automation capabilities (i.e., password reset, SCCM, Nagios, SolarWinds, etc.).

Our goal is not just to replicate what is utilized in our global ITSM system but to implement only what is needed to deliver the required services to CSC that provide business value. With our knowledge of your current ITSM environment, we start by conducting a mapping exercise to compare data fields from the legacy to the new, against CSC's business requirements. We will then draft a data design document that will detail the configurations, from the foundation data to the workflow processes, business rules/logic, UI

components, and data tables/interfaces for CSC's specific functional modules. This exercise cannot be done without consultation with CSC resources, as identified by CSC's transition team.

In our experience, we have stepped into multiple deployments where the contractors have over promised and been unable to meet their timelines and requirements for the client. Fast tracking such implementations has led to end-user dissatisfaction with a tool that is not fully ready for deployment and budget overruns.

Outlined below is a representative sampling of our recent engagements that demonstrates our expertise and knowledge from end-to-end.

Major wholesale food chain

- Implemented Service Request Management for the entire enterprise
- Managed incident, problem, and asset management
- Minimized service desk workload by optimizing resolution times
- Optimized client's investments by completing deployment within schedule
- Improved end-user experience via services which consistently met or exceeded KPIs.

Automotive distributor

- Legacy system was an outdated version of HP Service Manager
- Implemented our Service Desk Optimization and Service Governance solution
- Implemented end-user services
- Deployment completed on time and within budget
- Expanding services to ITOM modules (ServiceNow Discovery and Service Mapping).

Science and technology company

- Deployed zBoot (a clean implementation of the ServiceNow platform)
- Full asset management, software asset management, Service Desk, and Field Services
- Deployment completed on time and within budget
- Existing 6-year version of ServiceNow that was not working as expected.

United States Commonwealth Client

- Implementation for IM, PM, CM, Service Catalog, SLM, and AM
- ODS integration for reporting
- Monitoring and Event Management

- Discovery and CMDB integration
- SAP integration to Service Catalog and billing
- Implemented processes to provide consistency and support for their requirements.

State agency (Department of Justice)

- Old version of SM tool
- Deployed Service Desk
- Expanding services to include service catalog deployment and additional usage of ServiceNow
- Deployment completed on time and within budget.

Unisys is confident that with our dedicated Service Management team and the ServiceNow platform, this allows us to meet the stated requirements and will provide CSC the flexibility to accommodate changes and growth in the organization. Our partnership with ServiceNow augments our capability with our services.

Yes, the proposal presented to CSC includes all activities needed to implement and perform an initial populating of the CMDB, as well as asset and license management system.

Organizing and managing the application tower activities and resources will be similar as with all other towers. Each resource's knowledge and skills must be shared with at least one other resource. A succession plan is critical for a number of reasons, including removing bottlenecks in the organization. Unisys will cross train and establish a succession plan with each named resource during transition.

Most important, Unisys leadership will train each person on how to think beyond tasks and establish a vision in their domain. Each person must believe in what they are working on, in order to gain satisfaction in a job well done. As such, they must own objectives rather than only tasks. Unisys leadership will strive toward a culture shift of higher-level objectives and owning a vision, which encourages more thinking that is creative and growth.

The applications team will be organized along with major areas of business functionality, giving City employees a known point of contact who understands their business issues. These major areas include Public Safety (Police and Fire), Finance, HR and Admin (ERP, Recruitment, Budget, Document Management), Utility Management (Utility Billing), Land Management (Permitting, Work Order Management), and Web and Digital (City Websites, SharePoint, Agenda Management and Streaming Video, Social media, Citizen engagement). We will ensure that each application has a primary and secondary person assigned to ensure continuity during planned and unplanned absences.

As technology changes, the team will need to adjust and learn. Unisys will provide team members with access to resources within Unisys. Unisys University has a wealth of training available to employees. Each team member will have a training plan that can be achieved through Unisys provided tools in

meeting established goals. If there is a specific skill needed beyond what is available, Unisys will mutually agree with the City on those requirements, which may include specific training classes, bringing in new resources, etc. The applications team will also forge strong relationships with the City's vendors to ensure understanding the City's business needs and incorporate those into product roadmaps. This will help with future planning but will also help resolve any immediate issues.Each resource on the applications team, each will define their roles and responsibilities as it applies to the City's transformation goals, principles, mission, and vision. Unisys management will help by doing continual levels of follow up, weekly, against those responsibilities. Furthermore, management will not allow deviance to ensure change happens and cultural habits that prevent growth are quickly broken down.

Work plans will establish milestone dates. Resources are accountable to those milestones, consistently, in order to establish a culture of excellence and high performance. Unisys recognizes that if accountability is not consistent, it will breed a culture of mediocrity. Unisys is committed to moving away from this type of culture by showing improvement with measurable results by the end of the transition phase. Improvements are shown by establishing metrics, snapshotting a baseline, then showing improved progress over the baseline toward mutually agreed milestones.

The PMO will follow a well-defined and rigorous best practice PMO methodology. For success, scope must be clearly defined and agreed to by all stakeholders. The scoping process is established from a clear definition methodology and charter process. As such, the current charter process will change to providing options with impacts, rather than only establishing constraints. This change will therefore provide the City facts to make the best decisions on priorities. The Jira tool will provide workflow, capacity, and demand management. Furthermore, source control management, test automation, configuration, and environment management are provided and described herein.

Response

Unisys agrees to and will use the IT guiding principles in Schedule 3A and understands the importance of having the right skills, relationships, focus, and consistency that are required to deliver cross-functional services that work effectively across towers and personnel. To assume a leading role in driving the alignment of strategy with the City's IT business objectives, we will adhere to the strong teamwork processes described in this response.

Unisys will provide a mix of dedicated and remote staff to provision, deliver, and manage the cross-functional services in Schedule 3A. Onsite resources include key service provider personnel, as described in Schedule 9. Additionally, onsite resources include application analysts, field engineers, end-point engineers, security and network engineers, and at least two project managers. Unisys will use offsite resources for other functions such as application packaging activities; infrastructure and security monitoring; Level 1 and Level 2 Service Desk agents; and incident management, problem management, knowledge management, reporting, operational analytics, and change management functions.

Unisys will comply with applicable standards, policies, regulations, and applicable laws. These include ITIL/ITSM, PMP, ISO 27001, ISO 17799, PII, PCI, HIPAA, CJIS, CMMI Level 3, ISO 2000, ISO 27301, ISO 21500, and ISO 18770.

Unisys will provide several key tools critical to our solution, and we will leverage other key tools that the City owns today. One of the most critical tools from Unisys will be the ServiceNow platform, which will be deployed as the enterprise ITSM platform and provide core Service Management functionality such as Incident, Request, Problem, Change, Configuration (CMDB), and Knowledge Management. ServiceNow will also provide the end-user portal for access to knowledge articles for self-help and other end user-centric features. Unisys will also use Nagios and SolarWinds for automated monitoring of the core infrastructure and HP ArcSight, which is used for the Unisys SIEM solution. We will provide key Microsoft tools such as Visio and Project as required in the delivery of service to Unisys Team members.

Unisys will use City-provided licenses and tools such as Microsoft System Center Configuration Manager (SCCM) for use by our end-point engineers and asset management personnel. Other City-provided tools that Unisys will leverage include SCEP, MDT, Flexera, and AirWatch for mobile device management.

Unisys will continually adjust priorities to meet the City's ongoing requirements and recognizes that needs will shift between strategic initiatives, to projects, to operations. We will help to confirm that changes are well understood, so that the City may make the best decisions for meeting competing schedules. Project management is the art of balancing those competing objectives; therefore, Unisys emphasizes the importance of adhering to a robust Program Management Office (PMO). The PMO will provide a set of policies, processes, and methodologies based on DevOps, SAFe and Project Management Institute that project teams can use to facilitate the implementation of successful projects. These project management tools are identified and deployed as part of the DevOps and SAFe (Agile) transformation with the goal of assuring that stakeholder expectations are clearly understood; issues, risks, and problems are quickly

identified and addressed; and complete and open communications with project stakeholders are maintained. No two projects are identical. The project management tools delivered will provide the flexibility needed to accommodate a wide range of project types while providing the controls needed by the PMO to track project status and resource utilization effectively.

The PMO will enable project portfolio management processes and the monitoring of individual projects. Management reports that clearly identify resource utilization and resource capacity will be published each month. A monthly project portfolio review meeting will be conducted to evaluate project performance, align the project portfolio with strategic objectives, monitor and manage staff capacity, and identify issues and risks. Project timelines will be mutually agreed upon based upon clear scope definition and applicable Project Deliverables. Upon priority or scope changes, the timelines must be adjusted accordingly.

Satisfaction Surveys: Satisfaction surveys are a crucial part of assessing the overall value being delivered across the enterprise. As detailed in our responses to RFP requirements 2.1.1f, 2.1.1g, and 2.1.1h, Unisys will deploy multiple surveys to enable us to capture appropriate feedback from employees to City leaders. Some of the surveys are transactional and focus on how a call to our Service Desk went (for example); others are at a departmental leadership level to assess how IT is supporting the City's business goals, and others are annual surveys to assess overall performance to the City.

Continuous Service Improvement Process: Continuous improvement and innovation is a mindset that Unisys will drive across the enterprise and towers. Identifying opportunities is an obvious step in this process, but it is just as crucial to evaluate, analyze, decide, prioritize, and track the efforts to completion. Unisys will use an approach called the Continuous Service Improvement and Innovation Plan (CSIIP) to add structure, reporting, and consistent governance for the ideas so that the overall City and Unisys team are aligned with the priorities and progress to drive value to the City.

Critical Deliverables: The critical deliverables are an important part of the program; a strong governance approach will be established to enable the deliverables to be clearly tracked and continuously visible to the City. These deliverables drive quality, define operational methodologies, and establish the strategy for meeting the City's goals as well as reflect on how the program is performing overall to support the City's objectives. To confirm that a strong focus is placed on the creation of the deliverables, Unisys will leverage dedicated account resources supported by our experts as necessary and foster ongoing maintenance of these deliverables in accordance with Schedule 3A, Section 8.0.

IT Governance: To manage and administer the full portfolio of the required deliverables in Schedule 3A, Unisys will develop a leadership framework that fosters a culture of innovation and growth toward higher level business outcomes. We will set priorities in moving toward the City's vision and objectives: to promote a living and working environment that allows for the best quality of life in Santa Clara through technology and innovation. Governance will manage how we listen, innovate, and inspire new technology solutions that demonstrate value to Santa Clara.

Tools and Knowledgebase: Effective knowledge management will drive costs down, increase end-user satisfaction, and drive efficiency. Unisys' ITIL process knowledge and partnership with ServiceNow will bring the best service management expertise and tool on the market to meet the requirements for the proper ITSM tools that are described in Schedule 3A. Unisys will use an ITIL v3 compliant framework and operations model that incorporate Lean Six Sigma principles to maximize the value to the City.

Security Services: The information security program integrates security protections and processes throughout the technology services that are delivered. The program will be defined in collaboration with the business units to confirm that it meets their security needs, and a related Cybersecurity Plan will be developed and maintained as part of the program. To define the program, an Information and Cybersecurity policy will align with the City's security plan and provide the necessary governance for the City to achieve its security objectives, such as maintaining regulatory compliance with PCI. The security expertise and services are also forward leaning to provide protection for future cloud services and future convergence of industrial control systems with IT. Security services will include risk assessment, advisory, planning, awareness, SSAE 16 SOC 1 Type 2 reports, SIEM, penetration testing, intrusion detection and prevention, incident response, threat assessments, physical security, environmental controls, Active Directory administration, vulnerability scanning, patch management, and malware prevention.

ITLC and Operations Services: Unisys recognizes the importance of adhering to a strong methodology for the life cycle of services, as described in Schedule 3A. Therefore, we will perform Information Technology Leadership Council (ITLC) and Operations Services by confirming that the success criteria are defined to the City's success criteria of the objectives. Additionally, Unisys will start life-cycle plans with the following end goal in mind: how the user will learn and benefit from the new technology. When the ideal use case is understood first, high-quality outcomes are maintained.

Service Delivery: To provide capacity management, availability management, service level management, and other functions that are described in Schedule 3A, Unisys will conduct periodic reviews of each functional responsibility to maintain the highest level of quality on time.

As part of Acquisition and Management Services, Unisys will manage the overall procurement process for hardware, software, and services. Unisys will liaise with hardware vendors to cover administration tasks related to the procurement of new devices and consumables as part of daily operations and refresh projects. This process will be initiated by a service request in ServiceNow, where the fulfillment of a service request will trigger a purchase of a new device or consumable.

The Unisys procurement team will also provide input to a Unisys PMO resource who will liaise with the City to define and maintain the equipment list that can be ordered and confirm that Service Catalog items are current and in line with the respective services. Unisys will not take financial responsibility for the purchased devices; service covers the procedure of facilitating procurement administration on the City's behalf.

Another important area for emphasis under service delivery is asset management. Having the best processes and tools in place for asset management is critical so the City has visibility to make decisions, verify compliance, determine the best department business outcomes, and avoid cost overruns.

Asset management includes hardware and software license tracking as well as a strong methodology and set of tools with automation to help with driving an accurate result. Unisys will use the ServiceNow platform as the core component to drive asset management that improves inventory accuracy and leverage tools such as the Unisys instance of AssetTrack and the City's SCCM tool. This will improve the City's IT portfolio management (e.g., Heat Map Report and TIME Analytics) for better data accuracy.

The current Atrium Configuration Management Database (CMDB) data will be moved or integrated with a ServiceNow CMDB, depending on the accuracy of the CMDB as it stands today. ServiceNow has a direct SCCM Connector that we will implement with a MID Server to handle the communications. For the data center servers, we will implement Discovery to feed the CMDB. Unisys will bring in an Asset Management Subject Matter Expert to review and align the existing data model in preparation for any initial data loads or future automated data loads. The SME will also review current processes and documentation and update to suit current city needs. The existing asset data will be analyzed and updated as necessary. The SME will also work with the reporting team to set up the weekly, monthly asset reports as identified in Schedule 7. These efforts in combination with the ServiceNow CMDB will help Unisys and the City to improve the quality of the current CMDB data and have confidence in the CMDB as a complete, correct, and compliant single system of record to drive business-critical processes. The ServiceNow CMDB also allows quick and easy visualization of the infrastructure and service configuration information to understand impact and risk, make better decisions, and provide high-quality business services. Unisys will also help the City with business development that includes requirements gathering, development of scope, RFP evaluation, and making recommendations.

To further enhance the input channels to the CMDB, Unisys proposes to continue using the AssetTrack tool. It deployed at the city and will be integrated with ServiceNow CMDB by Unisys integration teams. Unisys client engineers to capture changes applied to the equipment and report any discrepancies will use AssetTrack. The incoming data arrives into a sandbox, where the Unisys Asset Management Team validates it before allowing it to reconcile with the CMDB data. This ensures the accuracy of the CMDB, by avoiding incorrect data entries.

As part of Software License Tracking services, Unisys will record and maintain software information to track instances of software installed in the city environment and cross-reference this inventory with a defined list of approved software (Definitive Software Library) and license details provided by the City. The Asset Management SME will review and work with Unisys teams to perform the initial load of all software installed instances using agreed technologies and methods during the Transition

Unisys will:

- Administer software licenses for the supported environment, including the entry of software contracts

- Initiate procurement of appropriate licenses that reflect ongoing demand
- Liaise with software vendor regarding license availability and demands on behalf of the City
- Monitor license usage to determine the appropriate versions are available and being used
- Maintain consistent versions of in-scope software.

The Unisys Asset Management team does software license compliance monitoring by performing a series of steps listed.

The Unisys Asset Management Team uses the reports of Approved software data from DML (Definitive Media Library), the software contract data, and Software licenses data from ServiceNow to determine the number of active contracts, number of contracts reaching expiry, historical contracts, etc. Using the reports from SCCM, the team reviews the license usage of the software contract along with the number of licenses available in the pool. The Asset Management team then determines whether the organization is still in compliance with the license agreement based on the reviews and will create a software compliance report that will be published to the city on a weekly basis.

The service does not include acquisition or financial responsibility for the software licenses or for software license compliance. Software License Tracking is driven by the Service Request Management and Change Management processes. Changes of ownership, configuration changes, relocation, and other resultant changes to the software asset will be updated in the asset repository.

Unisys will also perform periodic audits of hardware and software assets. Audit could be initiated by the City or initiated internally by Unisys. If any exceptions are discovered during the audit, such as over utilization of licenses, a non-conformance is raised, audit reports are published, and observations are tracked for closure. Based on the audit observations, investigations are initiated and sufficient amounts of licenses are procured or the hardware asset variance is resolved as the case may be.

The Unisys Asset Management solution will deliver a structured and managed approach to provide contracted assets that are collected, captured, and tracked at every stage of the asset life cycle in the asset repository. It will enable tracking of IT equipment from the time it is procured to its disposal. Unisys will track and manage the hardware assets listed in the table below. Unisys will record and track equipment and software details, such as serial number, model number, make, license number, version, and ownership, as well as builds.

ASSET TYPE	QUANTITY
Workstations (Desktops & Laptops)	1022
Mobile Devices (Tablets)	310
Printers and Multi-Function devices	182
Network scanners	2

Audio Video equipment	17
Servers (Physical & Virtual)	247
Storage devices	6
Network equipment (switches, routers, firewalls, wireless controllers)	102

Service Support: Support includes the services described in Schedule 3A, such as incident management, major incident management, problem management, configuration management, and change management. The service desk tower, built under the ITIL processes, provides incident management, service request management, major incident management, problem management, knowledge management, and ancillary support with metrics and reporting. Automation is included with monitoring systems by Nagios and HP ArcSight that flow through the central event management process for generating incident tickets into ServiceNow.

The City's general responsibility for the steady state operation Service is to provide the discovery toolset (SCCM), which enables consistent and regular scanning of the entire online infrastructure. Unisys will provide ServiceNow ITSM and the CMDB along with ServiceNow discovery for discovering the enterprise assets.

To deliver a structured and managed approach to the maintenance of a configuration model of the service, assets, and infrastructure, Configuration Management records details on the individual configuration items and the relationships between service assets and configuration items. The primary focus of Configuration Management is stability in operations of data center equipment, data center software, and support infrastructure.

Unisys will track devices and their relationships with the ServiceNow Discovery tool, which is used to discover server, network, and other data center devices that are part of the organization's assets and listed in the table above. The ServiceNow Discovery tool will automate the process of populating the CMDB by exploring IT systems to identify hardware and software, and then creating instances of Configuration Items (CIs) and relationships from the discovered data.

As discussed in the Service Delivery section, Asset Management delivers a structured and managed approach that enables the contractual details of contracted assets to be tracked and updated in the asset repository. The assets include physical assets such as desktops, laptops, smartphones, printers, and multifunction displays, audiovisual equipment, servers, and network equipment. Asset details are initially loaded by using agreed technologies and methods. The asset information is collected by using automated discovery technologies that are in place in the City's environment, loaded from the data supplied by the City, or manually collected and loaded for specific and low-volume assets. This data will be migrated into the ServiceNow CMDB. Changes of ownership, configuration changes, relocation, and other resultant changes to the assets will be updated in the CMDB.

2.2 Service Desk Services (Enclosure D – Schedule 3B)

Summary BAFO:

- Further Clarification and milestones of Road Shows
- Additional definition, frequency and milestones of Tech Café

2.2.1 Service Desk Solution Questions

Instructions: *In addition to the General Solution questions in Section 4 above, Service Provider shall provide responses to each of the Service Tower specific questions below. Limit responses to each question to a half page.*

Unisys Service Delivery Analytics (SDA) continuously works on identifying opportunities to automate resolution or drive incidents and service requests to a lower cost and faster point of resolution such as First Call Resolution. Unisys will review these opportunities periodically and jointly with the City of Santa Clara in order to present incident types that SDA has detected could be classified as First Contact Resolution.

a) *Describe the types of Incidents that your Service Desk will be capable of Resolving on a first contact Resolution basis (i.e., directly Resolving / fulfilling, without the need to escalate to a Level 2 or Level 3 resolver group), and how you will drive First Call Resolution through the Service Desk, including service approach, tools, techniques and any year over year increases in the FCR rate. Describe your approach to continually increase First Call Resolution Rates over the Agreement term.*

Response

The Unisys Service Desk will be able to resolve on first contact the following categories of incidents; issues with account administration, password resets and unlocks (where approved by the City), connectivity issues, and documented, common hardware error messages. Also resolvable are “How to” questions for common products, such as Active Directory; Office 365; Outlook; Domain Directory; Windows 10, 8, and 7; Internet Explorer; mobile devices; and antivirus/malware solutions. The Service Desk will also answer basic questions about COTS and specific City of Santa Clara applications based on knowledge articles developed by the City and the Unisys Team and driven by call analysis to address top call drivers.

On a monthly basis, the Unisys Service Excellence Office (SEO) will identify top drivers of incidents, customer dissatisfaction, and high-touch resolutions (Level 2, Level 3, and deskside visits) on a monthly basis via data from ServiceNow. The SEO will use this analysis to identify high-value training opportunities for our agents and technicians (or in partnership with our knowledge management team) to develop self-help solutions. This will be an ongoing process that also includes our field engineers to

maintain movement of a resolution from the field, to the desk, and to self-resolution. Items identified within the Knowledge Management platform as First Call Fix articles will be used by the Service Desk Agent to effectively handle First Call Resolution. In conjunction with the SEO, analytics will be reviewed monthly to determine the effectiveness of articles and new types of activities that can be implemented for the SD as part of FCR articles. The actions to drive improvement will be developed with the operational leads and driven to completion. The actions can be incorporated into monthly operational governance to provide visibility to the ongoing improvements in operations.

b) *If you are proposing a remote Service Desk solution, please describe what communication approach you propose to use in order to get the City's End-Users to utilize the remote-based services.*

Response:

The Unisys transition team for the account will work with City IT leadership to develop a communication strategy and a plan that showcases the new features that will be brought to the City's employees as the account transitions to the ServiceNow platform. The key features will remind them of the solution's 24x7 availability and the ability to reach out by phone, web, or chat. The plan will also showcase a new portal that will provide them with access to much more information than they had in the past, including self-help articles and incident and request status. This access will include the ability to use mobile devices to access the new end-user portal. Ongoing communication will be developed to demonstrate the Service Desk's impact on the use of knowledge articles, resolution rates, and other key metrics that will help the City's employees to see the benefit of the Service Desk. The team will also be able to leverage the TechCafé and IT Road Shows to help with showcasing the new portal and features that will improve their experience with IT.

c) *Ensuring an intimate experience between end users and the Service Desk is important to the City. How will you close the gap between the locations of the End Users and the remote Service Desk location (i.e., End-Users' fixation around the Service Desk not being on premise)? How will you will address Service Desk staff knowledge of the City's environment and skills (both onboarding and continuing) required to provide Level 1 and Level 2 support as defined in Schedule 3B?*

Response

The Unisys solution will provide users with 24x7 access to the Unisys Service Desk and access over optional channels such as phone, web submission, and chat, as well as enable our Service Desk agents to have access to information that will also make the interaction personal, including the use of persona-based profiles enabled in the ServiceNow platform. Our solution will deploy a new End User portal that will allow City employees to interact with the City IT Department to quickly view the status of their tickets

and service requests, view knowledge articles and frequently asked questions, and see important alerts related to IT. These will help to close the gap between the employees and the Service Desk.

When the Service Desk is working with a City employee, it is crucial to have personal insight related to the employee. Unisys will deploy Computer Telephony Integration (CTI)

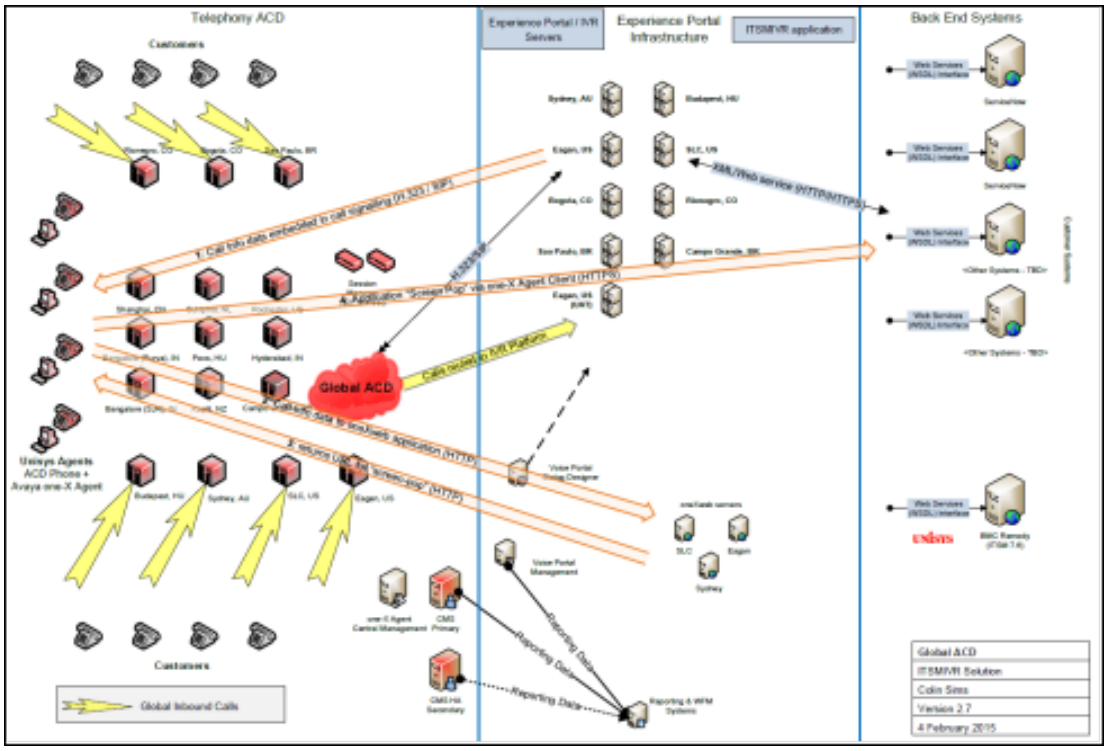
The CTI solution provides functionality that enables Service Desk agents to automatically get a screen populated with relevant caller's details either though automated Call Line Identification (CLI) or through the caller entering a unique numeric identifier using the telephone numerical keypad. The user's information is enabled for the agent, who will support the user, with a popup already available on the agent desktop.

Unisys will provide the CTI solution within the ServiceNow platform and telephony environment and the service will be available for the agents.

Preliminary process overview:

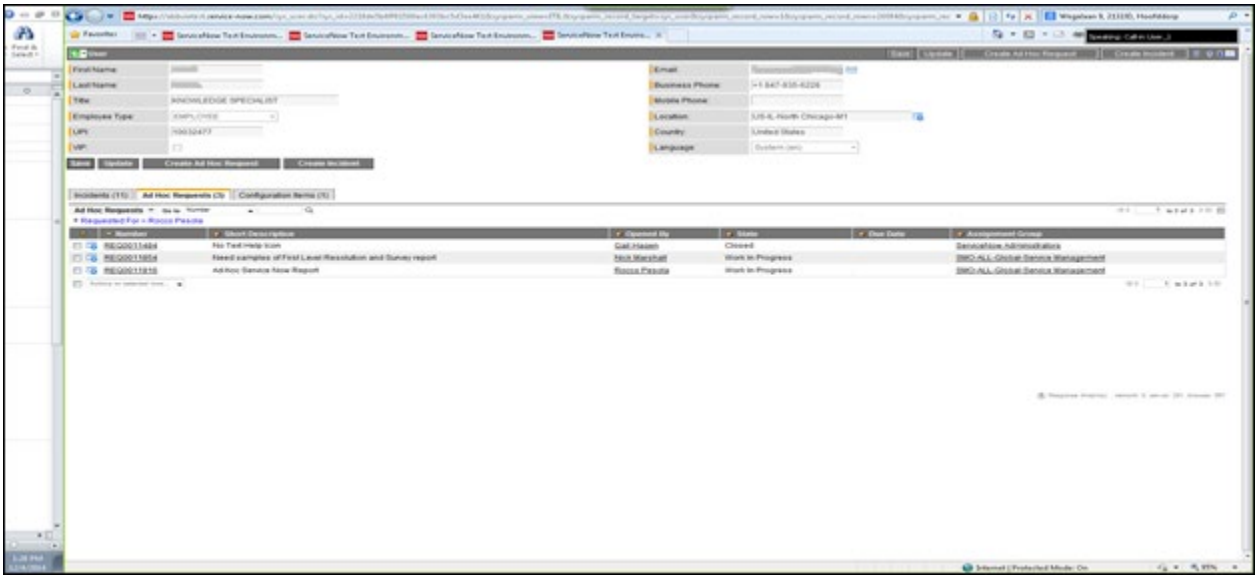
- Unisys will liaison with CSC, ITSM Team, and network teams to establish direct access
- Unisys Service Desk to get direct access (HTTPS) to ITSM from their desktop browser without any Terminal Service being the intermediate interface.
- Unisys IVR application servers to get direct access (HTTPS/SOAP) to enable Web Services functions with ITSM, if applicable
- Unisys will co-ordinate and work with CSC and Avaya to ensure the Web Services coding is carried out by Avaya once the Web services request Template is populated as agreed on
- The Employee list needs to be extracted and populated into a text file (Token File) containing only employee id without any special characters and characters to be small case, the file needs to be stored in the path specified. The Token file needs to be updated on a definitive interval.
- Unisys will ensure the necessary Service Desk agents are trained and ready with the usage of the necessary tools which would enable CTI
- Post Development will be completed and confirmed the completion of Web Services. There will be an internal testing within Unisys and UAT and with CSC
- Post Acceptance of CTI feature working as expected, the CTI feature would be enabled on Production and activated
- Unisys to provide project management and regular reporting on progress per agreed project governance

Unisys has a resilient architecture put in place with CTI supported by backend systems spread across different Unisys locations, each backend servers backin up each other. This runs on Unisys Backbone MPLS Connectivity which has a backup link which acts a failover mode. This is Unisys infrastructure and any client adding on gets plugged to this environment. The base Unisys CTI architecture system is shared on the network diagram below.



Unisys Avaya CTI Architecture

Example of a ServiceNow Landing Page with a Valid Employee Information *(The Name and Email are intentionally masked)*



Sample Screen of a landing page which would pop with caller information and Incidents created by the user.

d) *Describe your proposed solution for End-User self-help, including self-help plan and provision approach, platform, features/capabilities, effectiveness monitoring, and identifying and implementing approved recommendations for improved or expanded self-help services.*

Unisys will leverage self-help tools through the Self-Service Portal as described below. The Portal is a focal point for tasks available to the end users for self-service. The portal allows users to see previous incidents and requests, as well as check the status of currently open records and provide updates, such as additional information, attachments and close / cancel actions.

Response

The Unisys solution brings the power of the ServiceNow platform, persona-based profiles, and the functionality of self-help together with the experience of Unisys through support of clients around the world.

Our solution is integrated with the applications in the ServiceNow platform, i.e. Incident Management, Problem Management, Change Management, etc. and allows the users to submit and view their incidents and service requests in addition to searching for knowledge articles to self-resolve their own issues, even before contacting the Service Desk. To optimize the ServiceNow Knowledge Management process, Unisys used Lean principles as well as improved screen layouts and field-level functionality to reduce the user input required to log, track, and manage knowledge articles. Our solution has an intuitive, rich, full-text search functionality.

Additionally, contextual search functionality is enabled throughout the platform and fully accessible from the Portal for self-healing; it automatically displays knowledge search results when users enter the description fields for their new incidents. This helps users to deflect or quickly resolve their issues without involving Service Desk agents.

The Live Feed functionality allows users to add comments and discuss a knowledgebase article. This includes the ability to follow an article to see the updates and comments as they are made. This also helps users to deflect or resolve their issues without involving Service Desk agents.

Knowledge contributors can review and approve the publishing of articles in accordance with the knowledge process flow. The content submitted allows for better self-resolve results. The ServiceNow platform has a strong article analytic engine to track the overall effectiveness of the articles and knowledge environment. Both the City and Unisys will deploy a knowledge content strategy, naming content providers and approvers in both organizations to maintain quality and accuracy of all submitted knowledge articles.

Unisys will work with the City on a Knowledge Centered Support (KCS) strategy. KCS practices involve collaborating, sharing, using, and improving knowledge. The goal of KCS is to solve a problem once and use the solution often. To take advantage of the knowledge that is available in the phases of Service Desk operations, KCS makes the knowledge captured by the support process available for reuse throughout the organization. Other best practices involve updating articles to enable them to stay relevant and effective and retiring articles that are no longer relevant. Knowledge managers can run reports such as the top 10 articles and those most frequently viewed and used. This ability involves prioritizing and organizing highly frequented or used articles every 6 months.

Knowledge articles and help files will be updated to the knowledge platform in a prioritized fashion. SEO analytics will continue to drive the top issue types to both account for new knowledge articles required to support the City and to maintain up-to-date articles as the environments change. During Transition, Unisys will develop knowledge articles around the top 10 areas as shown in Section 2.1.1.m.

In summary, the approach for Self-Service will result in improved services for users. The knowledge database will be easy to search and follow, thereby increasing self-help in the organization. The Unisys ESS portal has been optimized for seeking knowledge for self-resolve, the ability to submit and status incidents and requests, chatting online, providing feedback and accessing the users own dashboard all empowers the users to be more self-sufficient in their needs.

2.2.2 Service Desk Solution Overview

Instructions: *Provide an overview of the Service Desk solution you propose to address the City Service Requirements stated in Enclosure D – Schedule 3B. Incorporate responses to common solution characteristics and description elements listed above. Limit 5 pages.*
Response: Unisys has a deep understanding of the essential requirements to design and implement an ITSM platform for our customers. We have developed our own best-of-class toolsets by introducing proprietary processes and configurations. This deep knowledge and experience is transferable to CSC and is included with our solutions. Our methodology focuses on using highly maintainable configurations of the ServiceNow platform, which means customization is very minimal, if at all. This approach also enables integrations to be created to your external infrastructure systems, through orchestration and automation capabilities (i.e., password reset, SCCM, Nagios, SolarWinds, etc.).

Our goal is to not just replicate what is used in our global ITSM system but to implement only what is needed to deliver the required services to CSC that provide business value. With our knowledge of your current ITSM environment, we start by conducting a mapping exercise to compare data fields from the legacy to the new, against CSC's business requirements. We will then draft a data design document that

will detail the configurations, from the foundation data to the workflow processes, business rules/logic, UI components, and data tables/interfaces for CSC's specific functional modules. This exercise will be performed in consultation with CSC resources, as identified by CSC's transition team.

In our experience, we have stepped into multiple deployments where the contractors have over promised and been unable to meet their timelines and requirements for the client. Fast tracking such implementations has led to end-user dissatisfaction with a tool that is not fully ready for deployment and budget overruns.

Outlined below is a representative sampling of our recent engagements that demonstrates our expertise and knowledge from end-to-end.

Major wholesale food chain:

- Implemented Service Request Management for the entire enterprise
- Managed incident, problem, and asset management
- Minimized service desk workload by optimizing resolution times
- Optimized client's investments by completing deployment within schedule
- Improved end-user experience via services which consistently met or exceeded KPIs.

Automotive distributor

- Legacy system was an outdated version of HP Service Manager
- Implemented our Service Desk Optimization and Service Governance solution
- Implemented end-user services
- Deployment completed on time and within budget
- Expanding services to ITOM modules (ServiceNow Discovery and Service Mapping).

Science and technology company

- Deployed zBoot (a clean implementation of the ServiceNow platform)
- Full asset management, software asset management, Service Desk, and Field Services
- Deployment completed on time and within budget
- Existing 6-year version of ServiceNow that was not working as expected.

United States Commonwealth Client

- Implementation for IM, PM, CM, Service Catalog, SLM, and AM
- ODS integration for reporting
- Monitoring and Event Management

- Discovery and CMDB integration
- SAP integration to Service Catalog and billing
- Implemented processes to provide consistency and support for their requirements.

State agency (Department of Justice)

- Old version of SM tool
- Deployed Service Desk
- Expanding services to include service catalog deployment and additional usage of ServiceNow
- Deployment completed on time and within budget.

Unisys is confident that with our dedicated Service Management team and the ServiceNow platform, this allows us to meet the stated requirements and will provide CSC the flexibility to accommodate changes and growth in the organization. Our partnership with ServiceNow augments our capability with our services.

Response

Solution Summary

The known City objectives and requirements are the base for the proposed Unisys solution. The Service Desk will be delivered from one of our Managed Services Centers (MSCs) in the United States. As required, the support will be in English.

The Service Desk will be the single point of contact for end-user requests, end-user submitted incidents, and infrastructure generated tickets. The Unisys Service Desk in the United States will be staffed and available 24x7

Main solution elements include the following:

- The Unisys ServiceNow platform for incident, service requests, problem, and change requests.
- Direct input to ServiceNow interfaces using the web portal and chat.
- The Unisys service desk will work with the City's service providers to resolve incidents. With proper entitlement and development of knowledge articles, the Unisys Service Desk will open incidents with

vendors on behalf of the City, obtain status of open issues with providers, and relay additional information where appropriate to approved providers.

- Provision of automated password reset functions using Unisys ServiceNow features where applicable to the City's environment.
- Remote takeover for incident resolution and request fulfillment where applicable, using the Unisys implementation of the LogMeIn remote support tool.
- Maintenance of a knowledge database of CSC-specific information, including incorporation of root cause analysis findings from problem resolution.
- Use of the VIP list supplied by CSC when handling user calls. Users that are flagged as VIPs will be handled with a higher priority for service restoration and for other cases where the request requires it be handled at a higher priority.

Service Desk Solution Components

Solution Baseline

With the introduction of the Unisys ServiceNow ITSM tool, users can contact the Service Desk over the phone, by web submissions at the self-service portal, and over chat channels. Unisys staffed agents to enable calls to be answered within 60 seconds. The Unisys solution does not include voicemail as a contact channel.

Unisys considered the following baseline:

- Contract term: 4+2+2 years
- Volume: 620 tickets per month
- Coverage: 24x7
- ITSM tool: Unisys' instance of ServiceNow
- Language: English.

Call Management

This service will provide the technical capability to receive calls from end users and route them to the appropriate Unisys Service Desk agents. Calls from end users will enter the Unisys Call Center from toll-free numbers or local direct inbound dialing telephone numbers. Interactive Voice Response (IVR) prompts will route the call to the proper agent or resolver team.

To make themselves known to the system, Unisys Service Desk agents will use a unique ID to log into the Unisys Automated Call Distributor (ACD). This ID defines the queues from which an agent will receive calls.

The Call Center's IVR/Announcement capability can play either prerecorded announcements or announcements recorded as needed to advise on outages or extremely high wait times. This prevents wasted time by users and agents who report on incidents they already know. It also reduces call volumes and therefore wait times for widespread outages.

Queue management information will enable call center supervisors and team leaders to track call wait times, queue depth, and agent availability. It also will give them the capability to assign queues to additional agents during peak periods; this is called workforce management.

Call Management Reporting

This service will provide the technical capability to display real-time information and to retrieve historical information from our Call Management System (CMS). It also will provide management and City reporting, as well as information for supervisor and wallboard displays. The CMS will be configured as a High Availability solution with server locations across several Unisys data centers.

Chat Interaction

This service will provide the technical capability to initiate an instant messaging connection with a Service Desk analyst for assistance in case of trouble or questions. This way, a call to the Service Desk will be avoided.

Dashboards and Reporting

Unisys will leverage the reporting capabilities in ServiceNow for enabling all Service Level Reports related to ITSM described in the Schedule 4 Exhibit 1 document of the RFP. We will develop the dashboards and reports during the transition. They will be accessible to the City and Unisys leadership and allow taking early action on deviations and keeping service levels within the agreed parameters.

Incident Management Service

This technical service will provide the technical capability to manage the Incident Management function, allowing for an incident to be created, manipulated, and closed. This service allows for the various state changes needed to track an incident's life cycle, setting the appropriate priority, assigning incidents to the correct resolver group, and confirming that incident notifications are set. Service Desk analysts will use this service to create, update, and close incidents; to confirm that the appropriate state changes are made throughout the incident's life cycle; and to set the appropriate notifications. Service Desk analysts also will use this service to categorize and report on incidents.

Password Management

This service will provide the technical capability to manage policy definition, setting, management, and resetting of a password for access to a domain or defined application. The ServiceNow password reset tool is an available feature that can be used for password reset activities. Password reset will be initiated by a Service Desk agent or directly by an end user to "self-reset" his or her password. Password reset

automation will be initially focused on the top 2 password request types identified by the call data and will be confirmed with the city during transition. In some cases, password reset automation may not be in scope due to the lack of standard integration between the environment and ServiceNow. Custom development of B2B integration to drive Password Reset automation is not included in the scope.

Problem Management

This service will identify and drive resolution of IT problems in the environment. The problem management team will use statistical measures and analysis methodologies to identify problems. Leveraging a set of investigative tools, the problem management team will collaborate with system owners to identify the root cause of problems for all P1 and P2 Incidents. Upon validation of the problem's root cause, the problem management team will maintain oversight of the problem through an action plan and its implementation. Problem Management team hours of operation would be 5*9 during business hours. The turnaround for the Problem Management team would be 5 days for preliminary RCA and 10 days for final RCA.

Knowledge Management

This service will provide the activities and tools for maintaining consistent, accurate, and timely documentation to support the City's in-scope products and services. Product or application-specific information will be validated with Unisys and the City content owners and then formatted as required before it is published in the Service Desk knowledgebase. Knowledge articles will be used by Unisys Service Desk agents and other Unisys resolvers for issue resolution and by end users who seek self-help. The knowledgebase will be updated as needed to maintain consistency in resolution of issues.

Remote Takeover and Diagnostics

To initiate a remote takeover session and gain access to an end user's desktop or laptop, a Unisys Service Desk analyst will use this technical service. The analyst will gain control over the device so that work can be performed. The Service Desk analyst will use this service to perform diagnostic steps on the remote end point, determine the problem, and perform remediation steps on the remote end point. This service will entail the creation and storage of audit logs for each remote takeover session for later review or audit. To provide this service, Unisys will use the LogMeIn password reset tool.

Service Level Management Service

This service will provide the technical capability to manage the Service Level Management function. This service will allow the description and capture of Service Level Agreements (SLAs) and to set threshold values and targets for the defined Incident Resolution SLAs described in the Service Level Reports in the Schedule 4 Exhibit 1 document of the RFP. This service will allow incidents and service requests to be tracked and measured against defined SLA metrics. Additionally, when the SLAs are not met, this service will facilitate the creation of notifications and escalations. It will capture actual performance values of the defined systems against the SLA targets.

Service Request Service

This service will provide the technical capability to manage the Service Request Management function. This service will allow a service request to be created, manipulated, and closed. This service will facilitate the various state changes needed to track a service request's life cycle and set the appropriate priority for the service request.

Unisys Service Desk Request Management team (this is a separate team from the L1 Service Desk) will manage all the Fulfilment requests submitted by CSC end users. However, the requests related to aging tickets or escalation requests will be handled by the L1 Service Desk team.

Service Excellence Office

The SEO is a global center of excellence at Unisys that coordinates with Unisys service delivery groups. The SEO's goal is to drive improvement by focusing on the following:

- **Resolution Optimization.** The analysis of incident data to identify candidates and move resolutions steadily from higher skilled analysts ultimately to Level 0. Improve speed of each transaction through increased resolution at the right level.
- **Defect Management.** Reporting, analysis, and action plans for service defects, such as incorrectly assigned incidents, incorrect diagnoses, and excessive resolution times.
- **Customer Satisfaction (CSAT) Management.** Improve Customer Satisfaction by eliminating the drivers of end-user dissatisfaction.
- **End User Productivity Mean Time To Resolve (MTTR).** Drive better end-user productivity by analyzing time taken to resolve across all resolvers.

2.3 End-User Services (Enclosure D – Schedule 3C)

Summary BAFO:

- Persona-based detail in ServiceNow and how it relates to End-User Services.
- Detail of endpoint services and level 3 support definition.
- Training detail and plans.
- Remedial maintenance service process.

2.3.1 End-User Solution Questions

Instructions: *In addition to the General Solution questions in Section 4 above, Service Provider shall provide responses to each of the Service Tower specific questions below. Limit responses to each question to a half page.*

a) *Explain how your proposed solution will address the City's desire to minimize unnecessary handoffs and follow ups of open tickets to Service Provider's End-User support staff due to insufficient knowledge of End-Users' ticket history during support activities.*

Response

As the new ServiceNow platform is deployed, focus will be placed on training to capture high-quality information on the tickets. The accuracy and completeness of information captured on each ticket will be crucial to technicians arriving informed and prepared. Service Desk staff will be trained to capture as much information as possible by thinking through the eyes of the Field Services staff who will visit the end user. Field Services engineers will thoroughly review the ticket information and the employee's history to confirm a complete understanding before making the visit. Unisys will conduct quality audits of the tickets to verify that ticket information is captured properly. The End User Services (EUS) leader for the City will also enforce and conduct quality audits to verify that our Field Services engineers are taking the time to review ticket information before making visits. The Unisys approach will also focus on misrouted tickets and tickets that could have been handled without a handoff. Quality analysis and efforts for these two areas will lead to fewer mishandled tickets and improved resolution on the first contact or opportunities to improve the self-help features of the end-user portal.

b) The City is interested in moving more toward a people/persona policy based set of standards for its end-users. Please describe how would you propose to implement a people/persona policy based standards approach to manage City end users given the different departments and their differing needs.

From a persona perspective, Unisys will implement three (3) personas: End User, Operations Management, and Executive persona for the Self-Service Portal.

- Personas are not roles and are more in the lines of user experience that span across multiple applications. A person with an executive persona has a consistent executive-level experience across the Portal, i.e. dashboards will be displayed. A persona describes key characteristics of users expressing how they view the world; they dictate user experience, roles dictate user access rights to data.
- Roles are typically application specific and are directly tied to data access within the application. Users could belong to the same persona (user experience) but have different set of roles (data access). Personas will comprise a base set of roles and permissions and admins can assign additional roles for the user for specific access.

Examples of poor candidates for personas: report editor, admin, dept 327 manager, finance application user, etc.

As stated previously, the three (3) personas that will be implemented for the ServiceNow Portal are: End Users, Operations Management and Executive personnel. Within the ServiceNow platform, this is achieved by 'group' permissions in the system.

Example: Alva.Pennigton is an End User in the system. Alva does not have any permission roles defined in the system to her. When Alva logs in to the Portal, she has the capability to submit/status incidents and ervice requests, search knowledge, etc. Bernard.Laboy is an operations user that can approve knowledge articles, approve change requests (via the CAB since he belongs to the CAB approval group), and can work incident tickets. When Bernard logs in to the Portal and/or the back end system, the approval widget and link is exposed to him whereas it is not available to Alva.

Response

The ServiceNow ESS platform provides users with persona-based access to the system, presenting them with the right information that applies to their roles and specific organizational needs. This will allow users to be able to find information faster, work smarter, have a better interaction with IT and business, and ultimately make a right decision. During the transition to ServiceNow, Unisys will lead the City through a process to review the right profiles that will drive the highest impact on the environment.

Persona-based access to information is complemented with role-based access to application features and capabilities in the ServiceNow platform. Role-based security defines user access at the module,

form, and field levels, so that the right to read, tailor, create, and take ownership of items such as tickets, configuration items, and service catalog items is configurable according to roles and organizational requirements. This capability can be assigned to specific roles, groups, departments, or positions in the organization.

The Service Catalog automatically displays requests related to end users, depending on how the requests are published and made available. This validates that a user only sees requests that are relevant to his or her role. Further restrictions or additions can also be made based on the end user's role, Unisys will look to evaluate the various user types, grouped by roles and personas; understand the City's needs to create an appropriate design; and provide a suitable portal that will provide City end users with ease of use and benefits.

In summary, general users can see a different catalog based on their role, but a manager can see their teams' access. Executives can be configured to see dashboards and only create VIP requests and incidents, etc. Users can easily be given application permissions to perform certain tasks such as change approval.

c) *The City is interested in improving customer intimacy through a Service Provider offering where Service Provider staff would be made available to the City's end-users on a scheduled, recurring basis (similar to a "genius bar"). This venue would provide the end-users with the opportunity to bring issues to the Service Provider (e.g., questions around device functionality, break/fix issues, etc.). Please indicate your proposed approach to providing this solution, including proposed frequencies.*

Response

Unisys proposes the deployment of the TechCafé. This TechCafé brings a higher quality touch and intimate experience that City employees will embrace.

Equipped with technical and material resources, the TechCafé delivers a flexible, efficient and intimate service to increase workforce productivity and performance. The TechCafé will provide a range of IT support services targeted at top incidents and requests that are commonly seen in the environment, including:

- Resolution of hardware and application issues for in scope hardware and defined applications
- Software installation and configuration of approved software applications
- Provide basic questions and answers around common end-user devices and applications.

Unisys will work with the City to identify an ideal central location for the TechCafé—a location with easy access by the largest number of End Users. Based on our experience, Unisys recommends a regular time once each week to ensure consistency with the end-users. The initial duration would start with 4-hour sessions and adjust reasonably based on staffing demand. A communication campaign will be developed to announce the grand opening and periodically remind users of the value of the TechCafé. A key process that will be followed is the use of the ServiceNow platform to capture the interactions at the

TechCafé so the demand and impact to the business can be tracked and measured to include customer satisfaction.

The City will be responsible for the facilities, furnishings, equipment, transportation, connectivity, and a secure storage facility.

d) *The City is interesting in providing City departments with a Service Provider "road show" whereby the Service Provider's End-User staff would visit each department on an established and recurring basis. These enhanced customer touchpoints would provide the department end-users with an opportunity to help with any issues department personnel may be experiencing or answer any questions they may have. Please indicate your proposed approach to providing this solution, including proposed frequencies.*

Response

In addition to the TechCafé, Unisys will establish a rotating "road show" with the City that deploys our field engineers to the various departments. This roadshow will provide another outlet to City employees to receive assistance with their top and most common IT issues and requests. Unisys proposes the largest department like PD would be visited once every 4 months, other major departments at least once every 6 months, and the smaller departments once per year. This schedule will be adjusted based on the utilization by each department with some departments being increased in frequency and perhaps others reduced. The schedule will be influenced by the TechCafé proximity and cadence to certain departments and City employees. Additionally, the "road show" format, length and actual participants will be adjusted based on the types of questions being asked and the types of issues being resolved. A communication campaign will be developed to announce the schedule and remind users of coming event. Finally, the incidents and requests resolved at the "road shows" will utilize the ServiceNow platform so the demand and impact to the business can be tracked and measured to include customer satisfaction.

e) *The End-User experience is important to the City. At the same time the environment is rapidly changing (e.g., mobility, O365, personas). As such, end point engineering is foundational to driving many City transformation initiatives and the City requires a strong end point engineering solution. How would you propose to provide an end point engineering team to successfully deliver these critical services?*

Unisys will leverage the instance of the AirWatch MDM tool provided by the Department of Justice to define and enforce City-approved device policies (e.g., security, accessibility, data). The Unisys team will also leverage this tool (for mobile devices) along with Microsoft SCCM for laptops and desktop devices in the departments, to make apps available to users when requested/approved apps are outside the core software provided on initial device images.Unisys will provide the following Endpoint Services:

- Desktop Operating System Image Development and Management
- Application Packaging Services
- Electronic Software Distribution
- Patch Management
- Endpoint Security Management and Event Monitoring
- Level 3 Engineering Support.

Unisys will deliver these services with an onsite-based dedicated staff of three fulltime Endpoint Engineering Team members with a fourth onsite dedicated team member to provide hands-on EUS technical team leadership and project coordination over the Endpoint and Desk Side engineering staff. The Endpoint Security Monitoring and Management service will be provided by remote staff to ensure constant monitoring and reliable responses to Anti-Virus and Anti-Malware related events reported while the onsite team members are engaged on projects and day-to-day service delivery of the other Endpoint services. The Endpoint Security Monitoring team will support the currently used tool (SCEP), and if this toolset is replaced, the replacement toolset will be supported for like functionality (Anti-virus and Anti-malware).

As new application of technologies like Office 365, Persona's, and mobilization initiatives evolve the End User Experience, the Unisys Endpoint team will support these changes at the departmental level through several means, including: department-specific Image Deployment task sequencing; standardized desktop application configuration management; diligent knowledge management practices, and close collaboration with Level 1 and Level 2 Support to provide effective continuity of services to the departments through all levels of the support process an issue may escalate through. As departments are transformed, Device Images will be adapted to unique departmental application requirements through task sequences that are applied with the image to adapt it to specific requirements within the target

department. When new applications are introduced, Endpoint will coordinate with the Application Team and City Departments to establish and capture standardized app settings and configurations are applied to app packages to be used by the department. As change is introduced and departments evolve, the Endpoint Team will support change processes by harvesting resolution data encountered while solving new and change-related issues into various types of Knowledge Base articles to provide Self-Help, Tips or "Work-Arounds" for Known Problems, and other instructional documents. These will be published and accessible to departmental End Users to assist them through the changes and challenges that surface. As the End User environment evolves at the City, Unisys Endpoint will ensure device images evolve with it, devices are kept secure through monitoring and patching of vulnerabilities, standardized application configurations ease learning and use of the devices, problems are easily addressed with self-help articles and up to date knowledge-base articles, and effective support through all service levels is readily and proactively provided.

2.3.2 End-User Solution Overview

Instructions: *Provide an overview of the End-User solution you propose to address the City Service Requirements stated in Enclosure D – Schedule 3C, as indicated below. Incorporate responses to common solution characteristics and description elements listed above. Limit 5 pages.*

Response

Unisys will require certification for the role required to do their function. This training and certification will be part of the Unisys resource performance plan. In addition, Unisys will review the technology roadmap with the City, during each of the mentioned meetings, in determining what upcoming technology skills may be required. Unisys agrees to provide the training and hold the team accountable to complete it. This mirrors our established guiding principle to improve our skills for the effective and strategic use of emerging technologies.

Finally, Unisys will leverage the City specific Knowledge Base and use it as required training, approximately quarterly, with end-user and all help desk staff. All new staff will be required to take the Knowledge Base training prior to engagement.

The Unisys solution will focus heavily on a dedicated onsite team of professional Endpoint Operations engineers and Field Services engineers who are focused on these crucial services. This team will use key tools such as the Unisys provided ITSM platform of ServiceNow. Microsoft System Center Configuration Manager (SCCM), and AirWatch are City provided tools which the team uses to manage mobility devices.

The ServiceNow ITSM tool captures incidents and requests that require Field Services support and enables connection of the right resources to the right asset or incident. Additionally, our commitment to developing and using best practices drives design efficiencies, promotes reusability, improves performance, and enables expanded capabilities.

Endpoint Operations Services Summary

The Unisys onsite dedicated Endpoint Operations team will approach management of end-point devices through a sharp focus on the following:

- **Device Image Management** – Reliable creation, maintenance, and deployment methodology of base operating system images for devices that are reliable, patched up to date, and configured for an optimal user experience on supported devices
- **Enterprise Management Platform** – Leveraging Microsoft SCCM, this platform will provide reliable image deployment, electronic software deployment, patch management, inventory data collection, software metering, and related reporting functionality to enable end-point devices to be well managed and equipped to meet CSC's operational requirements.
- **Group Policy Management** – Management of Active Directory Group Policies designed to enhance and safeguard the end-user experience while providing governance for use of end-user devices
- **Endpoint Security** – Maintenance of a safe computing environment and data integrity through monitoring, response, event management leveraging antivirus, antimalware, and encryption (Microsoft BitLocker) functions provided by the operating systems and by System Center Endpoint Protection
- **Desktop Application Management** – The Endpoint Operations team liaises with the Application Management team to gather optimal configuration settings and requirements of end users and to have those packaged with the commercial software for electronic distribution to end-user devices in a standardized, reliable configuration.

These services will be provided by Endpoint Operations experts who work on site and face-to-face with the end-user community while seeking to drive innovation into the processes and tools used. They will leverage the expertise found throughout our global community of Endpoint Operations experts, including some back office non-client facing expertise provided from various Unisys Service Centers.

Field Services Core Service Areas

Unisys solution assumes that ticket volumes will be consistent with the current environment (approx. 1,490 annually). To the extent such volumes materially change the City and Unisys will review and equitably adjust the City's Field Services requirements and associated pricing.

VIP Support: Unisys will work with the City to define specific onsite support for VIPs in the ServiceNow Platform. For other similar engagements, Unisys recommends a pool of pre-imaged equipment that is stocked at VIP locations. Whenever an incident cannot be (or is not expected to be) resolved within a VIP restore SLA, the VIP's workstation will be replaced to allow the user to continue to work as quickly as possible.

Deskside Support Services: Providing support to remediation of software and connectivity issues that cannot be resolved by remote resolution techniques.

Installs, Moves, Adds, and Changes

Installs, Moves, Adds, and Changes (IMACs) occur as ad hoc requests or as planned, large-scale projects. Unplanned or day-to-day IMAC activity is handled in the same way as hardware service requests, with call placement using the standard service request process: individual requests for IMACs go through the Service Desk or the Unisys Request Coordinator. A separate service request will be logged for each device or unit that is subject to the IMAC activity.

IMAC Service includes the following activities:

- Installations and De-installations – Upon equipment arrival, Field Services engineers will check for equipment damage, install and configure the equipment, load the software; and test it for full functionality. If a problem is detected, it will be escalated and necessary actions taken to enable device/system operability. End-user familiarization will be provided for the new equipment and software.

  Installation of additional software applications (packaged applications that are not included in the standard City image or applications that cannot be packaged) will be done as a separate IMAC with support materials that the City will provide to perform the installation.
- Moves – Field Services engineers will de-install equipment according to the move schedule and prepare it for transportation. Once the equipment is transported to the new location, they will reinstall the equipment and test it for full functionality, using a predetermined installation script.
- Adds or Changes – Field Services engineers will unpack the product, conduct a physical inspection, set the equipment up or install new or updated software, and connect and functionally test the equipment.
- Replacement of peripherals and reconfiguration of software
- De-installation of the equipment
- Disposal of the equipment is beyond Unisys scope thus a third party will manage
- Installation of software when Service Desk agents cannot install it remotely
- Project-based refreshes (periodical changes) of desktops and laptops.

Unisys IMACD Coordinators will plan and manage the IMACD schedule as agreed with the City or with individual end users and confirm the correct operation of an installed or modified device. An IMACD procedures guide will be produced and agreed with the City and be part of the operations manual used by Unisys Field Services engineers, which will lead to consistent, repeatable execution of services. IMACD Coordinators will perform the following activities:

- Prepare the target location for a trouble-free MAC
- Identify and verify cabling and electrical power
- Document changes or additions to cable and electrical power if required for performing the IMAC
- Inform CSC of site changes or additions required
- Understand and document requirements for equipment connectivity
- Report correct IMACD completion
- Act as an internal single point of contact for Unisys Field Services technicians for IMACD activities.

For IMACDs, Unisys IMAC Coordinators will confirm equipment and the Unisys resources needed are available to comply with the contracted SLAs.

Remedial Maintenance Services

Unisys Hardware Support and Repair functions provide the resolution of hardware-related problems with desktops, including repair or replacement of components or entire units, rebooting, isolation from the network, and diagnosis and corrective actions. Our Hardware Support and Repair functions can also be performed remotely by remote control or on site by deskside support or Smart Hands support.

In a hardware failure, the Unisys Service Desk will call the OEM to handle the issue if a unit is under warranty.

If the unit is under warranty, a Unisys Field Services technician will check the unit and decide whether the unit is reparable. If the unit is reparable, our Field Services technician will engage the OEM and adhere to their standard warranty repair process for the unit. If the unit is irreparable, the City will purchase a new unit, which Unisys will install. In case a hard disk failure, Unisys will reimage the PC with the City image. Unisys support of printers and mobile devices will extend to third party vendor maintenance when applicable.

Smart Hands Support Service

This service provides Unisys Field Services engineers to assist in the resolution of other enterprise hardware issues that cannot be completed by remote means and require a physical presence. This can include hardware configuration and use, complex how-to requests, and sporadic fault identification and rectification.

TechCafé

Unisys describes our approach to the TechCafé in our response to RFP requirement 2.3.1 c.

Road Shows

Unisys describes our approach to road shows in our response to RFP requirement 2.3.1d.

Additional Services

After each field service visit, a Unisys Field Services technician will perform the following activities:

- Check the health of the unit as preventive maintenance
- Check the asset record, escalate issues, and update the asset record if necessary
- Propose actions for the following items:
  - Parts
  - Swap units
  - Desktop and laptop purchases
- Check the stock level and propose further actions.

2.4 Enterprise Compute Services *(Enclosure D – Schedule 3D)*

Summary BAFO:

- CMP deliverables.
- Business Continuity and Disaster Recovery planning detail and process.
- Unisys outside SME provided for design and engineering.

2.4.1 Enterprise Compute Solution Questions

Instructions: *In addition to the General Solution questions in Section 4 above, Service Provider shall provide responses to each of the Service Tower specific questions below. Limit responses to each question to a half page.*

a) *What is your proposed solution to provide cloud orchestration (SI) services for the City's evolving cloud environment (e.g., tools, processes, etc.)?*

Response

The City has a "Cloud First" strategy in place for new applications and upgrades to existing applications. They require that the infrastructure activities performed on premise be available and easy to perform in the various cloud provider environments that are currently in place and those of future providers. Cloud orchestration is essential to continue to maintain the costs and timeframes to implement new applications and services in the cloud. For orchestration of cloud services, Unisys proposes to enable Infrastructure as a Service (IaaS) Solutions and a cloud ecosystem for the City by establishing a robust Cloud Management Platform (CMP). This will be achieved through the development of a City cloud strategy that includes service provisioning that leverages ServiceNow catalogs, orchestration, release management, and security management. Unisys is positioned to bring the Unisys Cloud Management Platform as part of the transformation services. This approach will be vendor neutral if multiple cloud providers are used to provide the lowest cost for performance to manage ongoing infrastructure cost. This approach will remain seamless to the other underlying cloud infrastructure. By leveraging the Unisys CMP, the City will move to a more agile approach that leverages DevOps for infrastructure management.

This orchestration approach will be driven by the Unisys Cloud Infrastructure team, which is jointly led by the applications and infrastructure program managers and supported by Unisys CMP experts. This approach will enable the aspects of the Cloud First strategy such as contractual items, security including Active Directory integration, interoperability, and SLAs to be managed properly. Unisys successfully worked with the City to drive Cloud First initiatives. These initiatives include the migration of City websites from internal hosting to a cloud provider (Vision Internet), Accela Customer Relationship Management (PublicStuff), Questica Budget, and Office 365, which is in progress. Additionally, we supported Public Safety applications such as replacing Patient Care with ImageTrend, CAD-to-CAD, and various other Police Dispatch applications.

Deliverables:

- Installation and configuration of the Unisys Cloud Management Platform (CMP)
  - Ongoing support and maintenance for the Virtual Appliance
  - Ongoing support and maintenance for the integrated software components
  - All licensing for products provided by Unisys within the CMP platform
  - Configuration of templates and scripting for standardized virtual resources
- The CMP services are listed here:
  - Orchestration
  - Rapid Deployment
  - Automated Provisioning
  - Self-Provisioning and Self-Service Interfaces
  - Third Party Cloud Provider Service Aggregation
  - Business Workload Analysis
  - Recommendations and Mapping
  - Audit Support
  - Analytics and Reporting
  - Multi Source Integration
  - Automated Run Book execution
- Configuration and modification of ServiceNow catalogs to facilitate Service Requests for CMP Self-Provisioning and Self-Service Interfaces
  - Initial configuration of CMP and ServiceNow Service Catalog objects is provided by a Unisys project team (external to the delivery staff) that specializes in CMP deployments. Post-implementation updates to the catalog will be handled as Service Requests and will be processed by Unisys offsite support teams.

Client Responsibilities and Assumptions:

- The Client will provide virtual resources, CPU, RAM, storage, and network, which meet the requirement for the CMP virtual appliance to be provisioned by Unisys.

Exclusions:

- Licensing for Private Cloud Hypervisor or Operating Systems
- Licensing for Client applications

- Migration Services of physical or virtual workloads to or from the Public or Private Cloud.

b) Describe your proposed collaboration solution, including setup, maintenance, support, City End-User training approach.

The Unisys on-site team will work closely with City departments to encourage and seek more adoption of SharePoint (CSI) for collaboration within and between departments.

1. ***A**dvise departments of applicable new functionality as it becomes available.*
2. *Conduct monthly user group meetings to include members from each department to*
    a. *Introduce new features*
    b. *Review departmental requests*
    c. *Discuss issues*
    d. *Deliver brief training sessions on relevant functionality. .*
3. *Conduct deep dives with individual groups to develop detailed requirements and configure and test the solutions.*
4. *Develop training materials (video, class-room training, FAQ's, QRG's, etc) which can be delivered individually or in a group setting.*
5. *Redesign the current CSI (SharePoint) Intranet Portal into SharePoint Online (O365) making sure to :*
    - *Perform a fitgap to become familiar with O365/Sharepoint Online features.*
    - *Analyse the City's desired new features for Level of Effort to implement and include in the workplan.*
    - *Cleanup the SharePoint 2010 and prepare for migration to O365.*
    - *Migrate the current content to SharePoint Online.*
6. *Maintain the current SharePoint 2010 Environment.*
7. *Maintain a detailed request log, which will be a part of the workplan. This will ensure that requirements are tracked and prioritized and also analysed for LOE.*

Response

When faced with a diverse group of end users in 15 departments across the City, it is important to have a strong focus on training to enable the end users to quickly embrace changes to their applications, technologies, and services. Unisys uses Microsoft SharePoint as the collaboration platform to improve productivity and business process automation. We will also leverage the new ServiceNow end-user portal

to provide additional opportunities for collaboration and training. As part of our approach to end-user training, we will meet with end users to gather requirements, create a proof-of-concept, conduct a review to identify and make final adjustments, perform testing (with a strong focus on user acceptance testing), and then send the release to production. We will develop customized training material (e.g., video library, quick reference guides, and webinars) that is relevant to the enterprise and the individual user, delivered in a group setting, or conducted one-on-one depending on the requirement. Additionally, to complement our approach to end-user training, Unisys will conduct a monthly web user group meeting that will be attended by representatives from each of the City's departments and chaired by the IT Department. Our approach to end-user training has led to increased end-user satisfaction. Examples of this end-user satisfaction include team sites for the Finance Department's Comprehensive Annual Financial Report to automate the production of the City's financial statements, an agenda coordinators team to track the status of council agenda items; and the police communications team site to enable sharing of critical information across shifts in Police Dispatch.

c) *Describe your proposed mobility solution including requirements development, support of the City's current AirWatch SaaS tool, and End-User access approach and security.*

Response

The City requires a Mobile Device Management (MDM) solution that can manage mobile devices across various departments, particularly for emergency responders such as the Police and Fire Departments. This is important because the City's data on devices must be protected. This protection will be achieved through encryption and password protection. Unisys can remotely wipe lost and stolen devices. Additionally, software deployment can be effectively managed to maintain a common look and feel for devices. Our solution continues the use of the AirWatch SaaS tool, which is owned by the Department of Justice to successfully provide this service today. More than 250 devices from various departments are registered and protected from data theft.

Unisys will continue to work closely with the AirWatch product and maintain the MDM solution roadmaps to enable AirWatch and the roadmaps to continue to meet business and security requirements for the City.

2.4.2 Enterprise Compute Solution Overview

Instructions: *Provide an overview of the Enterprise Compute solution you propose to address the City Service Requirements stated in Enclosure D – Schedule 3D, as indicated below. Incorporate responses to common solution characteristics and description elements listed above. Limit 5 pages.*

Response

Unisys proposes to provide the Enterprise Compute Solution illustrated in **Exhibit 2.4.2-1**.

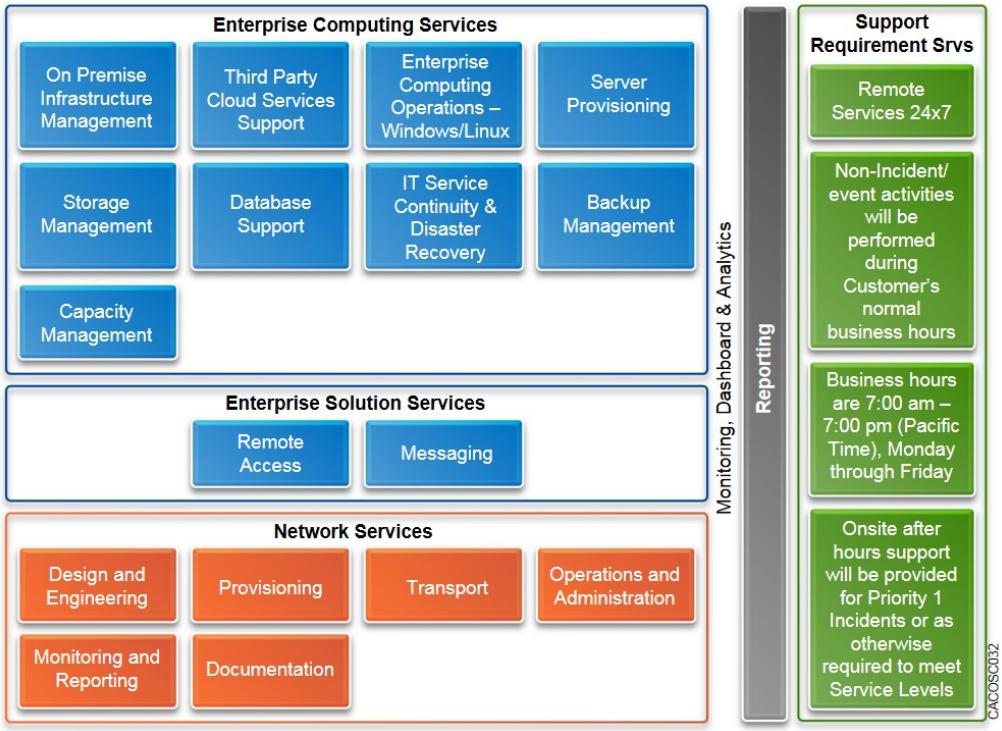


Exhibit 2.4.2-1. Proposed Enterprise Compute Solution.

The City provides business services to its employees and citizens through a robust and secure enterprise architecture that uses City-owned data centers, SaaS solutions with third-party application providers, and increasingly through work packages deployed with cloud providers. This architecture must be secure and available anytime, anywhere 24x7. A highly available, secure, resilient, and redundant enterprise compute environment is a must to enable the critical services that a city like Santa Clara offers to its citizens.

Unisys will provide the City with a systems operational management and project services capability for its data centers, cloud providers, and distributed computing environments. Our Enterprise Computing Services will also include management of systems, network, security, storage, infrastructure, database support, and system consolidation and integration. This will maintain high availability of the City's business applications with little to no downtime beyond planned outages. Unisys successfully demonstrated our commitment to providing and improving this high level of service with our ongoing program to move from a physical server environment, supported by a network with multiple points of failure, to a High Availability virtualized compute environment that is about 85 percent virtualized. We have two data centers that run on a high-speed 10 GB meshed core network that has improved redundancy, availability, and performance. Additional efforts during the rebuild of data centers led to a greener footprint that saves the City 60 percent on power.

Enterprise Computing Services

Unisys Enterprise Computing Services include the following services.

On-Premise Application Infrastructure Management Support: Unisys will provide on-premise application infrastructure management support for critical City applications such as Computer-Aided Dispatch (CAD), PeopleSoft, and Harris NorthStar.

Third-Party Cloud Services Support: Unisys leverages Azure for Office 365 and AWS as the cloud provider for the City. We will support future cloud providers that will use the DevOps and SAFe approach for the City and departments that serve the community. Using the Unisys Cloud Management platform, we will allow for improved orchestration of the cloud infrastructure as it grows to support the City's goals. This is part of the cloud maturity model and also part of the cloud continuum that is already in progress.

Enterprise Computing Operations: Unisys Data Center Operations Management (DCOM) solution is an ITIL v3 best practice based operation management approach. DCOM uses standardized processes and procedures that enfold the City's IT environment to provide consistent and repeatable support processes. Moving to ServiceNow will accelerate transformation by providing integrated request management as part of the Service Catalog. ServiceNow integrates with the current on premise environment and with the City's Cloud First strategy. Unisys has successfully implemented and deployed this feature for other clients. This process will drive costs down, improve consistency, and provide a just-in-time approach for systems that require additional resources to meet citizen and department demands. Enterprise computing operations will also organize the communication between different compute towers and coordinate them with project teams for streamlined execution in daily operations and special projects.

Storage and Data Management: The City and Unisys have worked together with storage and data management strategies to support the City's departments and special projects. This includes reviewing the current storage performance and its capacity, as well as evaluating the demand. Unisys will continue to drive data and storage solutions toward the cloud to maintain high availability of data and a scalable infrastructure, as well as improve disaster recovery options.

Physical Database Support: Unisys provides database support for SQL and Oracle engines as part of the current contract. We will continue to provide databases with physical support. This support is provided by remote Unisys staff, but with the continuous transition to the cloud, Unisys will bridge the cloud barrier further. Our expansion of the cloud footprint at the City will further drive the maturity process and continuous improvements in the environment.

Application Support and Web Support: Application and web support is provided by on site staff and remote resources. Unisys will continue to support websites and applications with the same approach. We will keep the current SLA for after-hours support on mission-critical systems. These systems include City websites, PeopleSoft, Public Safety applications, and Utility Billing.

IT Service Continuity and Disaster Recovery: Service Continuity and Disaster Recovery are limited to using High Availability servers with failover connections and multiple ISP feeds. IT Service Continuity and Disaster Recovery (SCDR) will further enhance the use of cloud providers to spin up mission-critical systems and to support offsite data replication in a secure public cloud. Unisys will test these processes once a year to deliver readiness and to meet the SLAs for the City's SCDR. This advance will improve the

support that City citizens receive. It will also provide critical departments with the tools that they must have to continue service if something should happen to the on premise mission-critical systems.

Unisys will provide to the City of Santa Clara Business Continuity and Disaster Recovery Planning (DRP), including the identification and classification of systems that require a Disaster Recovery (DR) plan. The disaster recovery plan, based on the City's RTO and RPO requirements, will include a detailed, step-by-step document which is to be followed during DR testing and/or when a Disaster has been declared. This will require the City to make key technical stakeholders available and responsible to participate in Disaster Recovery Planning Workshops. These workshops will be scheduled within the first three (3) months of the new contract. The Disaster Recovery Plan will be presented back to the City of Santa Clara within 60 days of a successfully completed workshop. The Disaster Recovery Planning is delivered by a separate from the Unisys delivery team but will require input from key technical support staff.

Upon mutual acceptance of the DR plan, Unisys will schedule a test of the DR plan with the City of Santa Clara at a time that will introduce the least amount of impact to the City. Unisys will execute the plan within the first twelve (12) months of the new contract and one (1) time per year for duration of the partnership. Unisys will provide a report with the test results within 15 business days. Upon a DR test failure, Unisys will work to remediate the issue and schedule a retest within 90 days. The Disaster Recovery testing will be led by DRP external team members and Unisys delivery key technical support staff. DR testing is assumed to occur during non-business hours to minimize impact to CSC agencies and constituents. All charges for DR planning and test exercises are included.

Remote Access: Remote access to systems and data for authorized persons is imperative for the City to support the community. This will allow citizens, employees, and City departments to function, especially as the location for these systems shifts from on premise to cloud-based solutions. Reliable remote access is key for the City to meet changing needs and includes the current VPN Client, Direct Access, and Office 365 methods.

Messaging: The Office 365 project is underway. Once this project is completed, Microsoft will continue to enhance it. As new features are added, they will have to be extended to the field for City personnel.

Collaboration: Across City departments and the various projects underway, collaboration and controlled access are important to have inside public buildings and around the City. Controlled access is important to support effective teamwork on the project teams.

Mobility: As already detailed in our response to RFP requirement 2.4.1c, Unisys worked with AirWatch and MDM while collaborating with the City to create an environment with the ability to support mobile devices. As requirements change, including those for GIS, the Landscape application, and the Public Works Road Conditions application, mobility access will play an important role in achieving effective communication between internal personnel and City of Santa Clara citizens.

Network Services: Unisys will continue to provide a highly available network that allows City employees and citizens to access the applications and services that align with the City's goals. These services will leverage monitoring tools and the ITSM platform to quickly respond to issues and resolve them. This will

include working closely with City telecommunications and fiber partners to maintain a reliable and available network. These are the same services that Unisys provides today and will continue to do so for the duration of the partnership.

Design and Engineering: By leveraging our experience with the design and engineering of network and compute projects, Unisys can recommend a cost-effective approach to meet strategic City project requirements and department goals. We will verify that the right success measurement tools are in place to guide our successful and cost-effective deployment of projects and concurrent operations for the near term and long term. Unisys has included in the services a Unisys Client Architect and technical Subject Matter Experts (SME) to facilitate and oversee design and engineering for the City's IT estate. These individuals are the conduit to the greater Unisys engineering teams and will bring other resources to bear as requested by the City. Reasonable requests for design review or engineering oversight will be handled in this manner. Requests for larger or more complex solutions may require additional staffing which will be reviewed and approved prior to any billable events.

Provisioning: As the City's needs change, the network and security environment will also change. Our network team handles the need to provision new equipment or reconfigure existing equipment to maintain high security. Unisys will use ServiceNow, Nagios, Cisco Prime Infrastructure, Zscaler, SolarWinds, and HP ArcSight to track changes and monitor the environment. These changes often require cross-technical tower support and confirmation of change in the environment. We will leverage those tools to execute, track, and monitor events. These are the same services that Unisys provides today and will continue to provide for the duration of the partnership. Innovation opportunities will be brought forward to the City as they become available for review.

Transport: Transport of data in the ever-growing, always-connected environment is important for having connectivity and control. The use of mobility and the migration from City-owned to employee-owned environments will imply new challenges for monitoring and managing access. Using tools such as AirWatch integrated with ServiceNow and HP ArcSight will allow for access and improved security.

Operations and Administration: Several key components make up part of the Unisys approach to operations and administration. Operations and administration follow ITIL v3 best practice principles by leveraging ITSM and ServiceNow, which will deliver enhanced consistency across technical towers. Monthly operations review meetings and "shift left" analysis will better support first-time resolution and faster resolve time for incidents. Items discovered will be addressed proactively to maintain the highest level of service.

Documentation: Unisys will create, maintain, and update standard operating documents monthly, quarterly, or yearly. These documents include those for mission-critical systems, processes, and procedures.

Security Planning and Operations: Unisys will provide security management and administration across technology stacks for the City. We worked with the City to define the initial security policies document. The initial document incorporates current security policies as well as Unisys experience and best

practices. These security policies are managed under the change control process. As requirements or technology change, Unisys will review each security policy document yearly, thereby improving operational procedures and governance with new knowledge acquired through our ongoing service engagement experience.

Firewall Management and Security Intrusion Prevention and Detection: Unisys proactively monitors and manages the City's firewalls, network-based intrusion detection system (NIDS) devices, and host-based intrusion detection systems (HIDS) for suspicious activity and known intrusions. When an event that affects the firewall or the security of the protected assets occurs, Unisys will evaluate the event, prioritize it, inform key stakeholders of the situation, and act accordingly to rectify the problem. We will attempt to notify the City before unplanned changes to the firewall or IDS-related components. However, in particular circumstances, Unisys may need to shut the firewall down to prevent an active attack from damaging City assets or the firewall itself before communicating with authorized contacts. Unless otherwise stipulated, the City will authorize Unisys to shut its firewalls down if we detect a security breach of the firewall that can affect critical systems or confidential information.

Managed Security Services: These services include physical access tracking, prevention of intrusions to enterprise systems security, and detection as part of an ongoing effort to provide the most robust protection possible against physical terrorism and cyberterrorism.

Enterprise Computing and Network Services follow the same requirements and principles, which include the following:

- A continuous improvement methodology that leverages a service of "shift left," review of Continuous Service Improvement and Innovation Program results, performance metrics, and key performance indicators. This methodology will allow us to establish improvement areas to help find the critical path across technical towers and team with City counterparts to leverage the highest service levels and to meet continuous improvement goals.
- Innovation brings new technologies and methods to help with life cycle management that will support the City's Cloud First initiatives. Unisys will leverage new tools to improve our cloud strategy in the Application Services commercial off-the-shelf software (COTS) portfolio on a case-by-case basis. COTS will move to the cloud when deemed appropriate. With our mobile strategy, citizen services and overall engagement will be improved. Innovation will include several components such as Wi-Fi capacity, a new CAD Resource Management System, and integration across City departments to better serve the community.

Support requirements: Unisys will provide 24x7 Remote Service. We will perform non-incident and event activities during the City's normal business hours. Normal client business hours are 7:00 a.m. to 7:00 p.m. (Pacific Time), Monday through Friday. Unisys will provide onsite support during normal business hours. We will provide onsite after-hours support for Priority 1 incidents or as otherwise required to meet service levels.

2.5 Application Management, Configuration and Maintenance Services *(Enclosure D – Schedule 3E)*

2.5.1 Application Management, Configuration and Maintenance Solution Questions

Instructions: *In addition to the General Solution questions in Section 4 above, Service Provider shall provide responses to each of the Service Tower specific questions below. Limit responses to each question to a half page.*

a) *Describe your process for application portfolio assessment activities, including development of the annual evaluation report of the City's business and enterprise application portfolio with recommendations on application priorities, applications roadmap development.*

Response

Over the last seven years, Unisys has worked with City departments to create an Application Portfolio. This portfolio was developed using the Gartner Application Portfolio Management (APM) portfolio assessment methodology. This portfolio currently has 182 business applications identified with an understanding of the health of each application (Business Value Versus Technical integrity) according to the Gartner TIME methodology (Tolerate Invest Migrate Eliminate). This information is socialized and agreed upon with the departments at least once a year to help drive awareness of the health of the applications and to provide input to budget funding discussions. This assessment identifies both business and technical deficiencies. Many facts about an application are reviewed in these assessments, including:

- Application age
- Does the current platform (server, OS, database, Client, client OS, physical, virtual) comply with the City's Enterprise Architecture standards?
- Security status – PII, PCI, user security, role based
- Vendor management
- Product roadmap
- Are the skills required to support the application in line with the City's stated direction?
- Is staff training required?
- Opportunity to rationalize (and save costs) – are there other similar applications in use at the City?
- How often is the application used?
- Business impact

- Total cost of Ownership, including cost to maintain and support
- Interrelationships with other applications.

The Gartner APM (TIME) model to rank business value and technical integrity for each application is a leading approach and one that drives clarity to the application roadmap.

Unisys will continue to manage the City's application portfolio. Our approach to Application Portfolio Management will include the following activities throughout the engagement:

a. Maintenance and enhancement of the application portfolio to continually assess the health of the applications. Due to changes in the business focus and technology, it may become necessary to track additional information regarding the applications (e.g., Windows 10 readiness, Cloud readiness, etc.).

b. Update applications' portfolio inventory data, based on changes to the portfolio (e.g., new applications, upgrades, retired applications, technical changes (virtualization, DB upgrades, and customizations)), the environment, and the City's business needs.

c. Facilitate periodic (annual) portfolio reviews with the departments to review their applications.

Monthly Application Portfolio Assessments will be produced with recommendations on application priorities. The outcomes of our application portfolio assessment activities, including assessment of ROI of addressing current business problems, will be reviewed monthly by producing charts and analysis from the repository. Heat maps will be produced to show various issues such as databases and operating systems that are out of date, security issues, and vendor version issues. These items will be reviewed with the respective City departments. During budget cycles, this information will help to prioritize needed upgrades and replacements.

b) Describe your proposed approach to coordinating application lifecycle activities (e.g., testing, configuration, maintenance), with third party application providers (e.g., COTS, SaaS, cloud).

Response

As the incumbent, the Unisys applications team currently performs vendor management activities at all levels in collaboration with department stakeholders and subject matter experts (SMEs).

As part of its strategy for vendor management at the City, Unisys will use the following approach:

- Hold regular executive stakeholder meetings with major application vendors to keep City management current on product roadmaps and new capabilities.
- Proactively engage the third party provider SME/technical experts to ensure that application related best practices and latest patches are incorporated in a timely manner.
- Monitor feature release schedules from our vendors, plan for testing cycles, and review and prioritize application vendor issues to maintain high-quality service delivery.
- Work with the application vendors to ensure:
    - Timely identification and mitigation of risks
    - Timely resolution of any application-related incidents/issues (e.g., sudden application dumps/errors), escalation of issues to ensure timely assistance from application vendor management, and timely communication to relevant City stakeholders on progress.
- Manage communications and set appropriate expectations and project timelines that are agreed to and effectively communicated to the City, Unisys, and the responsible application partner.
- Provide input to contract negotiations; understanding the products and vendors helps to create the correct terms and conditions/statement of work for contracts being negotiated by the city. Negotiating the correct deliverables, timelines, and payment milestones is the foundation of a successful project and vendor relationship.

c) Describe your proposed approach for providing the Business Analysis services in Schedule 3E, including how you will engage City departments to understand their unique business needs and translate them into functional and technical requirements, drive solution evaluation and selection, address reporting needs, develop test plans and End-User training and support plans, develop application roadmaps and strategies, and drive departmental customer satisfaction.

Response

Unisys understands that Business Analysis is one of the key aspects of the overall services engagement with the City. Through our Business Analysis Services, Unisys will effectively assimilate the key requirements/challenges of City departments and build requisite collateral/documentation that helps deliver the capabilities and user experience that exceed expectations and effectively support the City's business. The on-site team has Business Analysts that have domain knowledge in key areas such as

Finance, Utilities and public safety, ensuring effective communication of departmental needs and vision to the IT department, Unisys and vendors.

Our core activities for providing Business Analysis Services for the City's Departments will be:

1. Introduce our tested and globally accepted methodology, based on the concepts of "design thinking" or "conversation to conception" (Kanban) model, for effectively capturing business requirements to drive the overall application roadmap. We will incorporate the relevant elements of our overall DevOps and Agile approach to service delivery, to introduce technology and process elements that make this service more efficient.
2. Conduct regular meetings with the City's departments concerning their respective business functions to discuss the current status of issues, projects, and upcoming needs. As part of this activity, we will manage their requests, including tracking, incorporating detailed and complete documentation, and reviewing requests with departments and vendors to find and recommend best possible solutions (and alternatives). We will research requirements with vendors and institutions, and conduct a regular review of business practices against industry best practices to suggest improvements. An example of this service is the Utility Billing system projects, for which Unisys set up a Project Management Office to manage Utility Billing system projects and priorities of the major stakeholders.
3. Proactively lead and manage all coordination activities with the application vendors and City's IT staff (if needed) to ensure availability of the required support needed to resolve project level issues/ challenges arising out of shortcomings in applications or supporting software. This will include coordination for relevant functionality updates / business process changes, application patch installation, application upgrade, etc.
4. Lastly, execute an annual scheduled Customer satisfaction survey relating to the Service Provider's Business Analysis services and roles, with distribution restricted to City's end users, department directors, managers, and key subject matter experts (including Customer's IT Department (ITD)).

d) The City is interested in providing business analytics and reporting services to the City departments, on an ad hoc and standing basis. This would be done through extracting data from departments' business applications and packaging the data for reports and analysis. How would you propose to provide this service to the different departments given their differing missions and needs (including staffing approach, and process for report development activities)?

Response

Unisys has a thorough knowledge of the current state of data and analytics needs in the City and is working on some key initiatives to help build/deploy robust analytics solutions, such as Microsoft Power BI. To help deliver reports/analytics services that cater to unique needs of various departments, we will provide this service on a project-by-project basis, with an appropriate "change order" based on the overall scope and level of effort required to support each department's needs.

As part of its business analytics services for City, Unisys team will perform the following key activities as part of this engagement:

1. Organize need-based meetings/workshops with Department SMEs to understand and document these business reporting/analytics needs.
2. Our analysts will then assess feasibility of these requirements against the available data sets and in-house analytics applications (e.g., Cognos), prioritize the feasible requirements in collaboration with Department stakeholders, and provide estimation for building these reports.
3. Present estimates (and associated implementation costs) to the relevant stakeholders as Change Orders (CRs) for approval/signoff.
4. Post CR signoff, Unisys analysts will design, implement, test, and deploy the report, and collaborate with stakeholders/SMEs for user acceptance/signoff and training on these reports.

In addition to the regular ad hoc analytics/reporting work for City's Departments, Unisys analysts will perform regular research and assessment. We will provide the City with recommendations on relevant next generation business analytics capabilities that present significant opportunity for the City to easily interpret rapidly growing volumes of complex data and decipher new ways of improving services to citizens. Typical examples of these are:

a. Open Data Portal that facilitates a single point of access to a wide range of data held within various City Departments. This Portal will enable ease of use, reuse, and distribution, and will enable meaningful insights that help drive quick and informed decision-making. Recently we became aware that the City's budget software vendor, Questica, has an open data product under development (Open Book) and arranged a demo and installation of the product for Santa Clara to be part of the product evaluation team.
b. Growing volumes, sources, and complexity of data and the desire of organizations to analyze and report on larger volumes of this data (historical or dispersed) has led to the advent of new data

analytics platforms based on Big Data. We will work to assess and recommend such relevant platforms, including Unisys' cost-effective Advanced Analytics Platform, based on the City's future needs. We will help the City's users derive meaningful insights over a larger base (including social media) to serve the City's citizens much more effectively.

e) Describe your company's SharePoint practice and how you would leverage it in the City's environment.

Response

The Unisys CSC account team has a senior SharePoint/Office 365 subject matter expert and two additional team members who are well-versed in SharePoint and in supporting the City's intranet (CSI). Our account team domain experts will closely collaborate and work with department stakeholders to redesign and modernize the City's intranet using SharePoint Online, leveraging our experience and expertise from the Unisys global Microsoft SharePoint practice. We will also incorporate best practices for security and enterprise document management, as well as improve business functionality and collaboration. This will be achieved by implementing:

- Customized workflows and forms
- Team sites
- Other SharePoint native functionality, as appropriate.

At Unisys, we continuously maintain and update our Microsoft collateral, best practice information, and lessons learned from our many client engagements. This information is available to our associates on other engagements, such as CSC. We will efficiently reuse this content to deliver solutions to meet and exceed the City's expectations.

We will make our associates aware of the latest trends, including reviewing release notes from Microsoft and configuring new functionality/best practices as needed, and as it becomes available.

2.5.2 Application Management, Configuration and Maintenance Solution Overview

Instructions: *Provide an overview of the Application Management, Configuration and Maintenance solution you propose to address the City Service Requirements stated in Enclosure D – Schedule 3E, as indicated below. Incorporate responses to common solution characteristics and description elements listed above. Limit 5 pages.*

Response

Our approach to Application Management, Configuration, and Maintenance Services, which is illustrated in **Exhibit 2.5.2-1**, is driven by our passion and relentless desire to exceed the City's expectations for application services. Unisys clearly understands City's challenges and will use this opportunity to bring in the much needed process improvements and automation in our services offering that will help deliver continuous improvements and innovations and bring in the benefits of improved efficiencies, reduced time to value, and potential cost savings for the City.

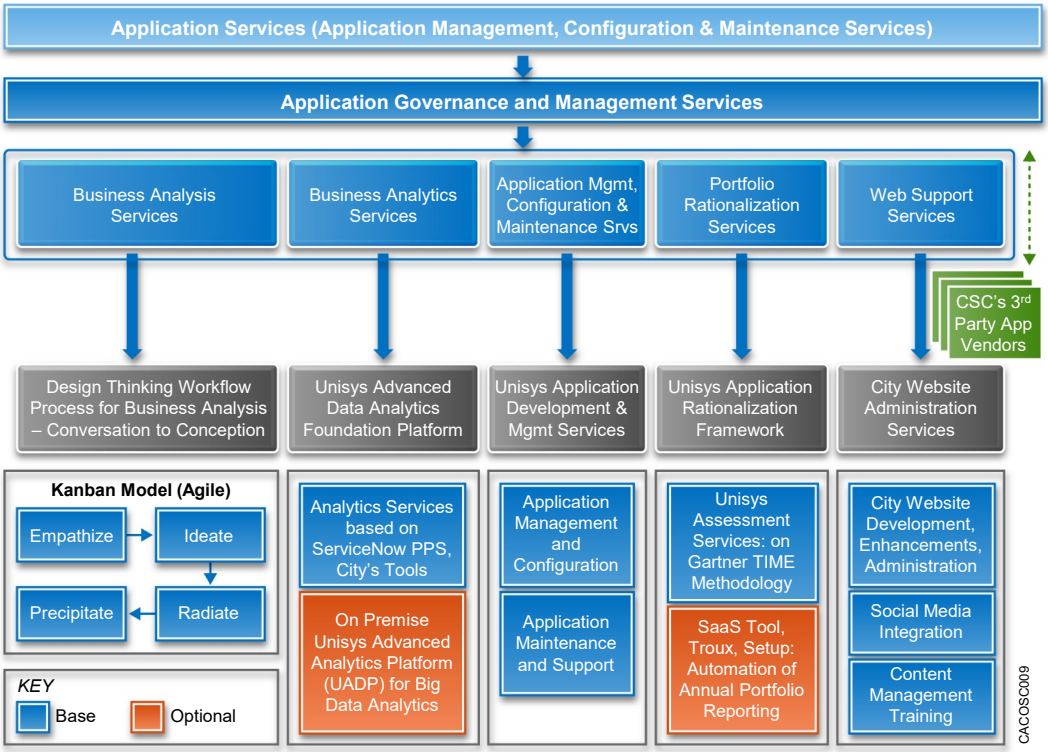


Exhibit 2.5.2-1. Unisys Application Management, Configuration, and Maintenance Services.

As part of this strategy, Unisys team will help transform the current state of services through these key initiatives during our engagement with City::

a. Rationalize and standardize the current processes in place for Application Services by using our expertise and Gold partnership in the renowned Scaled Agile Framework for Enterprises (SAFe). This

framework combines Agile and Lean principles and values to arrive at the specific practices and roles that are required across the enterprise to succeed on the Agile journey.

b. Introduce DevOps to provide the much-needed automation across the application life cycle for improved efficiency, effectiveness, and speed of project delivery. DevOps will bring the needed automation for driving effectiveness in service delivery and drastically reduce potential defects to improve services quality and drive costs down.

c. Through Continuous Service Improvement initiatives, consistently enhance the skills of our associates at the City. This will not only meet our associates' aspirations, but also will set the pace for innovation, growth, and overall efficiency and cost benefits.

d. Evaluate new technologies and recommend enhancements that help to drive continuous improvements in operations, reduce the time to market, drive costs down, drive better user experience, and improve user sentiment. Our recommendations are as follows:

    i. Open Data Portal, to facilitate a single point of access to a wide range of data held within various City Departments as opposed to the current environment where information is in silos, spread throughout the city (Refer to our response to RFP requirement 2.5.1d.)

    ii. Advanced Business Analytics based on Big Data capability, using cost-effective solutions like the Unisys Advanced Analytics Platform to solve complex problems in the future. (Refer to our response to RFP requirement 2.5.1d.)

    iii. Agile-based business analysis (refer to our response to RFP requirement 2.5.1c) to drive process improvements that help design solutions with improved user experience.

Unisys will work to provide all the services listed as in scope for Application Services SOW (Schedule 3E), including the ongoing and project-based application maintenance, configuration, and maintenance services for Customer's application portfolio, in line with City's expected Service Level Agreements (SLAs), with timely and adequate assistance provided by City's stakeholders in resolving dependencies arising out of external factors where Unisys has no control. These external factors are typically:

a. Delays on the part of the City in its required project participation, providing scope changes and in signoff of deliverables, despite timely reminders from Unisys Team

b. Delays on the part of the City in procuring applications and software (or patches) or provisioning required infrastructure for the project

c. Delays from the application or software vendors in providing the required patches, despite timely communication from Unisys Team

d. Change in City's business priorities, and the same resources from Unisys Team are required to address them

e. Delays in provisioning of the required infrastructure (including the correct versions of application, database, etc. for Non-Production and Production environments) or SaaS environments to build, test, and deploy

f. Timely and complete participation and signoff on deliverables from assigned City stakeholders in accordance with the Project Plan

g. Product/application and environment, Infrastructure, or Environment (Cloud or in-house) issues

h. Upsurge in incident volume from the current volume handled by the Unisys Team.

In such scenarios where external factors come into play, Unisys will work tirelessly in coordination with City and any third-party vendors to ensure timely resolution (or workaround) of such external factors that inhibit service quality and impact smooth running of business. In addition, Unisys will document such instances and their resolutions as lessons learned, so impact of such external factors can be minimized in the future.

Our SAFe Strategy for the City

Unisys will use our team of certified Scaled Agile Program Consultants with deep industry expertise to provide the required consulting needed to enable an Agile way of working. Unisys created a framework to help to assess customer organizational readiness for embarking on an Agile-DevOps journey and identifying improvement areas. We will leverage this framework to help with charting the roadmap for achieving the necessary process improvements.

How SAFe Will Work at the City

Detailed Scaled Agile (SAFe®) and DevOps Implementation Approach is provided in response to Question 4.1 d. This section gives an overview of Unisys' Agile/SAFe® strategy for City. The Agile life cycle conforms to an incremental pattern. Development iterations, termed as sprints, are typically contained in 2 to 4 week increments in which constant progress is demonstrated. This life cycle and the accompanying methodology allow for maximum communication and collaboration with clients and development. Unisys' key Agile elements, combined with our enhanced execution capacity that leverages our DevOps stack, will address the scope of application management and configuration to include the following activities:

- ***Requirements Management:*** to establish and maintain agreement with the City and other stakeholders on system requirements. The Agile method defines requirements with the sprint cadence of 2 to 4 weeks and uses a user story-driven approach. User stories allow requirements analysts to focus on the goals for the system under development and offer a short narrative describing something that a user wants the system to do.
- Analysis and Design: to transform the requirements into a design of the system-to-be; to evolve a robust architecture for the system; and to adapt the design to match the implementation environment, designing it for performance.

- Implementation: to define the organization of the code as implementation subsystems organized in layers to implement the design elements as implementation elements (source files, binaries, executables, etc.), to test the developed components as units, and to integrate the results produced by individual implementers (or teams) with an executable system.
- Testing: to focus mainly on evaluating or assessing product quality, which is realized through a combination of leveraging DevOps (e.g. Selenium) for improved testing efficiency and effectiveness and the following core Agile practices:
    - Document defects in software quality and advise on the perceived software quality
    - Validate and prove the assumptions made in design and requirement specifications through concrete demonstration
    - Validate that the software product works as designed
    - Validate that the requirements are implemented appropriately
- **Deployment** consists of the activities for enabling the software solution's availability for its end users.
- **Configuration and Change Management** are essential for controlling the numerous artifacts produced by the many people who work on a common project. Unisys Agile uses CMMI-compliant processes for configuration management.
- ***Project Management*** is the art of balancing competing objectives, managing risk, and overcoming constraints to successfully deliver a product that meets the needs of customers and users. That so few projects are unarguably successful is comment enough on the difficulty of the task. Agile Project Management allows Unisys to manage risk and to demonstrate progress early and often.
- ***Organizational Change Management (OCM)*** enables the organization to efficiently transition through the change impact by identifying the risks and mitigation as it pertains to employees; identifies key messages to push using a variety of supporting channels; and tracks usage of the new tools or technologies based on targeted communications as well as appropriate training delivered. As a result of the organizational change management strategy, City of Santa Clara will receive:
    - OCM plan that provides strategic approach applied to an evidence-based transformation plan that moves organization from current to future state with high adoption rates.
    - Communication campaign that supports organizational growth through transition, utilizes CSC current communication channels, and tracks effectiveness.

    OCM stakeholder analysis will include a focus on how the transition to DevOps environment impacts current stakeholder groups, and specific treatments (communication and training workstreams) that address and support the transition. We will create performance objectives for fully leveraging DevOps environment including achieving service levels as identified in solution SOW. Performance objectives will be addressed through specific training and coaching plan to fully engage impacted users.

- ***Environment*** focuses on the activities necessary to configure the process for a project. It describes the activities required to develop the guidelines to support a project. The purpose of the environment activities is to provide the software development organization with the software development environment—processes and tools—that will support the development team.
- ***Operations and Support*** is a discipline that is adopted by Unisys Agile. It is the recognition that the work is not complete when the project is delivered. The main goal of the Operations and Support discipline is to operate and support the solution in a production environment.

Application Maintenance and Support:

Our approach to Application Maintenance and Support is driven by the ITIL v3 framework. The model focuses on delivery of services to business stakeholders within a set of well-defined service-level expectations. The changes and benefits that are due to a shift to a unified managed service provide a positive impact across many dimensions. Unisys stands behind our commitment to services that will improve over time and be supported by detailed analytics. Applications management will align incident management, problem management, knowledge management, service request management, and service optimization with the ITIL framework to provide process standardization.

Unisys' partnership with ServiceNow allows us to bring not only one of the best service management tools in the market but also our world-class ability to deliver services through a fully ITIL v3 compliant framework and operations model. The Unisys strategy for service management is founded on helping clients to focus on a top-down approach for understanding that business value comes from running IT from the business perspective. Although the Unisys solution is partly based on ITIL-certified products, it incorporates Lean Six Sigma principles to maximize the value to the City. The aspects expected as part of the maintenance services will use our strengths as follows:

a) Preventive Maintenance:

i. Use our expertise in ServiceNow for regular analysis of volume trends in incidents and problems to recommend appropriate remediation measures (e.g., enhancements, system changes, and upgrades,)

ii. Work with our enterprise compute team to help with setting up an adequate application performance monitoring mechanism that maintains continuous monitoring of key business applications, thereby providing business continuity by timely prevention and quick resolution of application breakdowns

iii. Work closely with application vendors, given our knowledge of the City's landscape and challenges, to confirm that applications have the best practices and the latest patch updates in place.

b) Adaptive Maintenance:

i. Unisys will perform regular research and provide periodic updates of application and solution recommendations, which will fill gaps that might exist between the City's vision and current application landscape.

ii. Once City stakeholders accept our recommendations, Unisys will work with relevant vendors to enable the application to meet the requirements (or gaps) with minimal customization.

iii. Hold regular meetings with application vendors to confirm that the solution is regularly updated in line with the City's changing business and regulatory needs.

iv. Work with the City IT Department to confirm that required clearances are in place for periodic installation of vendor-recommended patches and changes.

c) Corrective Maintenance:

i. Ensure timely resolution of incidents.

ii. Perform necessary break/fix activities.

iii. Drive appropriate and timely communication to relevant stakeholders.

d) Perfective Maintenance:

i. Work with the enterprise compute team to confirm adequate application performance monitoring, especially the key business applications (e.g., PeopleSoft) to identify problems that affect expected value to City departments

ii. Regularly analyze applications' performance trends and work with appropriate application vendors to understand and develop roadmaps for recommended maintenance best practices and periodic infrastructure changes to avoid degradation of application performance.

Continuous Improvement: As an innovation-driven organization, Unisys believes in driving this culture of innovation and continuous improvement in our associates who are engaged with the City. We see tremendous value in fostering this culture through our proposed engagement team to consistently deliver benefits and cost savings to the City. The following elements are key to success for this program:

- **Effective Knowledge Management** to drive cost down and increase end-user satisfaction by driving for the quickest and most effective resolution
- **Relentless Training** of our associates that includes cross-skilling, up-skilling, and relevant certifications.

APPENDIX A

CRITICAL DELIVERABLES

for

CITY OF SANTA CLARA

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Overview of Unisys Innovation Workshops ..... Error! Bookmark not defined.
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Procedures Manual

Guide that details the standard operating procedures for all services. This has items such as process based procedures such as Incident management as well as functional base tasks such as PC installs.

In October of 2013 a series of guides forming the then Procedures Manual was delivered as part of the original contract Critical Deliverables to the city. These guides in some cases are fully inclusive while others point to shared repositories of documents that contain "how to's" that are frequently used by desktop technicians and other support staff, both onsite and remote. Examples of these guides include, but are not limited to:

- Change Control Procedures
- Problem Management Procedures
- Incident Management
- Data Center Maintenance Plan
- Database Backup and restore
- Security Procedures
- Operations Guide
- LAN Standard and Procedures
- Windows Design
- VPN Procedures
- Server Build Procedures
- Server Patching Procedures
- Endpoint Installation Procedures
- DSS Processes and Procedures

Since publication, there have been changes to the infrastructure, environment, software and business applications that need to be reflected in these documents to bring them up-to-date. Furthermore, during the transition process new runbooks and helpfiles will be updated and created. These will also be referenced to the knowledge base and portal as applicable. Once these have been updated by the individual service towers and approved, a process will be put in place to update them regularly through the change management process.

Business IT Strategic Plan

Plan that analyzes the current state of the City's Information Technology utilization, capability, capacity, maturity and cost-effectiveness to meet functional business goals and requirements.

Identifies un-met and new business requirements and develops the future state Information Technology landscape, as defined below.

The plan will include a 2-4 year roadmap to help it achieve the identified future state, goals and objectives.

Elements include:

Current State: review and assessment of business strategy, vision and goals, business services and functional requirements, IT utilization, capability, capacity, maturity and cost-effectiveness to meet functional business goals and requirements. , financials, IT environment, service gaps.

Future State: Un-met and new business requirements, IT trends, IT vision, IT capabilities, policies, standards, processes and organization, enterprise architecture, governance model, performance management

Roadmap: Identification and prioritization of business application refresh projects and IT initiatives for the 2-4 year horizon. The roadmap will include time-lines, budget needs, high level justification and funding sources.

The Enterprise Architect, assisted by Unisys Consultants and SMEs will develop and update annually the Business IT Strategic Plan (ITSP) based on the departmental goals aligned to the City's Mission and Vision. The ITSP serves to align the technology requirements to the City's business goals, functions, services and requirements for information technology and forms the foundation for the other associated strategic plans, information technology organizational, tactical and operating plans. The Future State vision describes the ideal state in high-level terms that forms the foundation for the acquisition of new technologies to support new capabilities. Identified gaps between the Current State and the Future State are selectively organized into projects that are then prioritized based on budget or technology sequencing requirements. As new approaches/capabilities are identified through trends in technology and service delivery, they will become candidates for update to the ITSP and the other strategic plans. As projects are completed, their components and capabilities will become reflected in the Current State as part of the annual update. As new business goals or technology improvements are identified, their components and capabilities will be incorporated into the Future State, and a new gap analysis will be conducted and the Roadmap updated as part of the annual update. (Please refer to 2.1.1.0.)

Unisys will produce a business driven "IT Strategic Plan" in the first year (within 12 months) after "go live", that is intended to provide a high level framework and prioritized roadmap of IT projects and initiatives for a 2-4 year period. Following the initial deliverable, this roadmap document will be revalidated and updated at least once every 12 months to reflect any changes in the City's business priorities and technological advancements and changes.

Unisys will maintain this Strategic Plan and Roadmap and provide effective, monthly communications on progress to ensure that the City makes progress on its vision and goals through the prioritized roadmap.

Deliverable outline

An outline of the "IT Strategic Plan" deliverable that will be produced at the end of a four to six week engagement is outlined below. This is the same work plan as the Digital Strategy Plan insofar as it leverages the same workshops and the same participants. The Digital Strategy is the "envelope plan" whereas the IT Strategic Plan is the "enabler plan". In any case while we develop the interview schedules and the workshops it should be one set that covers the input and planning, deliverable creation for both.

#	TOC Major Area	Content area (sub TOC)	Comments
1	City Goals and Vision	* City Goals and Visions - * IT and Technology Vision and Goals for City	Describes City's Goals and Visions for the City as a whole, and specific departments as perceived by leadership of City and Department heads

#	TOC Major Area	Content area (sub TOC)	Comments
2	Current State of Digital Technology in the City	***Business services and functional requirements*** * Current State of Technology / Processes in various Departments/City ***IT utilization, capability, capacity, maturity and cost-effectiveness to meet functional business goals and requirements.*** * Enablers / Barriers that exist today * Existing IT Projects that are underway and their alignment with the ITSP and Digital Gov	Gaps that still exist in order meet the City's stated goals and visions. Technology Enablers that will be required to fill these gaps with the current state
3	Future State Recommendations	***Un-met and new business requirements, IT trends, IT vision, IT capabilities, policies, standards, processes and organization, enterprise architecture, governance model, performance management*** * Technology Capabilities Required to support Future Vision and Goals * Prioritized list of ***business application refresh projects and IT initiatives*** * Projects Defined with High level cost, benefit and Financial Analysis * Prioritized list of Projects	Prioritized list of Projects and Initiatives supported by Financials (high level) costs and benefits and an implementation plan (high level) in a roadmap for the City

#	TOC Major Area	Content area (sub TOC)	Comments
		* Projects / Initiatives recommended * Implementation Roadmap for 2 to 4 year timeframe	
5	Ongoing Governance Recommendations	* Methodology, Templates and Documents to track and monitor ongoing implementation * Monthly Status Report Template	Visual Tracking of Progress made on various Technology projects and initiatives, including Financial performance, and progress against plan

Tasks / Deliverables / Acceptance Criteria

Unisys will use a team of Consultants and Local Government SMEs, and the onsite team of Applications Program Manager, Enterprise Architect to develop and present the IT Strategic plan, which will be updated annually (every 12 months).The Unisys team will work with City stakeholders who will be identified prior to the initial kickoff meeting and will be involved during the interviews, and also both of the workshops that will be conducted during the engagement to produce the final deliverable – IT Strategic Plan.

	Major Task / Deliverable	Completion / Acceptance criteria
1	Engagement Plan with Interview Schedule (Kickoff)	Project Plan Produced and presented to City Stakeholders and approved by the CIO
2	Interviews with Stakeholders of all departments (1-2 interviews per department)	Interviews completed (Questionnaires and interview notes produced and documented)
3	Preparation for Planning Workshop # 1)	*Planning Deliverable* - PPT Deck and Word Document that outlines City Goals/Mission (for Digital Transformation), Capabilities, Enablers and Barriers completed and approved by the CIO and departments
4	Prioritization/Planning Workshop Completed (#1)	*Planning Deliverable* (updated)- PPT Deck and Word Document that outlines City Goals/Mission, Capabilities, Enablers and

	Major Task / Deliverable	Completion / Acceptance criteria
		Barriers completed, with capabilities prioritized after the Workshop, reviewed and approved by the City.
5	RoadMap Workshop Completed (#2)	*RoadMap Deliverable* – PPT deck and Word document that describes Initiatives/Projects and their priorities, with High Level Financial Analysis (costs / benefits), priorities, High level implementation plan and Roadmap. Completed and approved by the CIO
6	Final Presentation and Deliverable Completed	*Final Presentation* to City Stakeholders (PPT Deck) and Final Deliverable – IT Strategic Plan Document (Word doc) completed, presented and approved by the CIO

Periodic Updates and Ongoing Governance

Monthly Status reports will be produced regarding the progress of various activities and milestones outlined in the IT Strategic Plan. This will be tracked by the Unisys PMO, Applications Program Manager, Enterprise Architect as well as Digital Government SMEs and the City stakeholders.

On an annual basis (every 12 months), the planning process will be repeated, as necessary, to update and maintain the IT Strategic Plan document.

Information/Cyber Security Plan

A current information security plan and robust set of policies exist as an input. Service Provider will analyze current security posture, any new business and regulatory compliance requirements and laws, and provide recommendations to address any areas where deficiencies or threats have been identified for both on prem and cloud assets. Result will be an updated written plan, policies, standards and procedures that provide the operational and technical responsibilities associated with the Security table in this SOW (e.g., data security, physical security, security operations, patching, malware prevention, monitoring and Incident management, and threat and vulnerability management).

The Plan must be consistent with the NIST Cybersecurity Framework and any new business and regulatory compliance requirements and laws.

A Security Plan exists from 2013 based on the City's business needs and the security and privacy controls listed in the NIST SP 800-53 publication. This plan incorporated the results of an assessment that documented compliance with the controls listed in the NIST special publication. The security plan will benefit by performing a new security assessment, which is included as an optional service in the

proposed information security solution. The optional annual risk assessment and requirements review is based on business needs and the complete (most current version) NIST Cybersecurity Framework. (The currently released version 1.0 consisting of 22 categories and 98 subcategories and draft version 1.1 consisting of 23 categories and 106 subcategories).

If opted for, the assessment will be performed by the Unisys Security Advisory team using currently released version. The results will be used to benefit the Security Plan.

The following are the aspects of the risk assessment process that will enable the development of a plan that conforms to the NIST Cybersecurity Framework, and is based on the City's priorities and areas of risk.

1. Perform risk assessment
   - Define scope that includes systems, stakeholders, and compliance requirements.

   a. • Understand current state of security controls (based on Data Sensitivity requirements, NIST Cybersecurity Framework and other standards and laws, such as HIPAA, California Public Records act, PCI, DOJ, California privacy laws and guidelines, NERC Standards, etc.)
   - Conduct interviews and perform walkthroughs of in-scope systems and processes
   - Perform SWOT Analysis (Strengths, Weaknesses, Opportunities, Threats)
2. Determine desired capabilities and maturity levels
3. Perform gap analysis
4. Generate report that includes:

   Revised Security Plan, Policies, Standards and Procedures

   Revised Citywide security breach response plans

   Revised security technical architecture
   - Prioritized risk ranking
   - Capability assessment findings
   - Maturity assessment analysis
   - Remediation and upgrade recommendations
   - Security action plan

Business Continuity Plan

The Business Continuity Plan includes working with key stakeholders to re-validate the City's critical business applications and infrastructure assets based on the already defined prioritization framework and updating/enhancing the existing Business Continuity Plan that encompasses all current mission-critical City Applications and the associated IT assets.

The current Business Continuity Plan (BCP) was delivered as part of the original contract Critical Deliverables to the city in January and February of 2014 and consisted of the following documents:

- Business Continuity Program: Information Technology Strategy
- Business Impact Analysis
- IT Incident and Communications Management Plan
- Disaster Recovery and Scheduled System Testing
- Data Center Restore Plan
- CSC Information Technology Operations Recovery Plan
- IT Operations Metro Failover Guide
- ITSM Offline Workaround
- CSC – Business Continuity Program Tabletop Test Plan
- CSC – BCDR Risk Assessment Table
- Business Continuity and Information Security Executive Steering Committee Charter.

Since publication, there have been changes to the infrastructure, environment, and business applications that need to be reflected in these. A Business Continuity (BC)/Disaster Recovery (DR) subject matter expert (SME) will facilitate the review, validation, and update of the documents and plans listed above. There will be a need for the SME to interact with the onsite and in some cases remote staff to obtain updates to the environment and business requirements. The impact on City department resources will be minimized through an effort to reuse discovery and analysis work performed as part of the 2014 deliverable effort. The basic process will be as follows but is subject to revision after the "Create and Review BCP Update Schedule" tasks have been performed:

1. **Create and review BCP Update Schedule**
    a. Review existing BCP documents
    b. Assign tasks for data updates
    c. Create and review CSC BCP Update Schedule
    d. Review the BCP Update schedule with Unisys CSC support team
2. **BCP Information Update**
    a. City of Santa Clara Business Continuity Program: Information Technology Strategy
    b. Business Impact Analysis based on revised business requirements, RTO and RPO needs

c. Enterprise Architecture
d. VM Mappings to Volumes
e. Hybrid Cloud and Cloud Backup impacts
f. BCDR Analysis
g. Emergency Incident Contact Lists
h. BCP Information Update - Complete

3. Update BCP plans

a. IT Operations Recovery Plan
b. IT Incident and Communication Management Plan
c. DR and Regular CoSC System Testing (MASTER)
d. City of Santa Clara Business Continuity Tabletop Test Plan
e. Datacenter Restore Plan
f. BCP plan update complete
g. Sign off by the City and Unisys on the revised BCP

4. Publication of Revised Business Continuity Plan

The current Business Continuity Plan which is the main document contains the following high level layout and table of contents but may be revised during the update process:

1.0 Introduction
- 1.1 Purpose
- 1.2 Scope
- 1.3 Objectives

2.0 Risk Assessment
- 2.1 Threat Summary
- 2.2 Threat Mitigation
- 2.3 Major Disruption Scenarios

3.0 Business Impact Analysis
- 3.1 Approach
- 3.2 Business Function Summary

4.0 City Emergency Operations
- 4.1 Emergency Operations Plan Priorities
- 4.2 Emergency Operations Plan Scope
- 4.2.1 Levels of Response
- 4.3 City Emergency Operations Responsibilities
- 4.4 Integration of Departmental Recovery Plans
- 4.5 The Business Recovery Center

5.0 Business Continuity Framework

6.0 Conceptual Architecture
- 6.1 High-Availability Architecture
- 6.2 Disaster Recovery Architecture

7.0 Recovery Approaches
7.1 Platform Types
7.2 Recovery Techniques
8.0 Plan Maintenance and Testing
9.0 References

Disaster Recovery Plan

This plan is to update and enhance the detailed requirements and design solutions for the recovery of critical IT assets in the event of a major disaster or service disruption.

Unisys will provide to the City of Santa Clara a Disaster Recovery Planning (DRP) for those Business Critical systems that require DR plans. The disaster recovery plan deliverable, based on the City's Recovery Time Objective (RTO) and Recovery Point Objective (RPO) requirements as defined in the Business Continuity Plan (the subject of a separate deliverable), is a detailed step-by-step document which is to be followed by key Unisys and City staff during DR testing and/or when a Disaster has been declared. Unisys will collaborate with CSC on a yearly basis to review and update both the Business Continuity and Disaster Recovery Plans.

This will require the City to make key technical stakeholders available and responsible to participate in Disaster Recovery Planning Workshops. These workshops will be scheduled within the first three (3) months of the new engagement. The Disaster Recovery Plan will be presented back to the City of Santa Clara for their acceptance and approval within 60 days of a successfully completed workshop.

Upon the City of Santa Clara's acceptance of the DR plan, Unisys will schedule a test of the appropriate set of Business Continuity Plans and the DR plan with the City of Santa Clara at a time that will provide the least amount of impact to the City. Unisys will execute the plan within the first twelve (12) months of the new engagement and one (1) time per year starting in year 2 for the duration of our partnership. Unisys will provide a DR test review report with the results of the DR test within 15 business days of completion of the scheduled DR test. If a DR test is not successful, Unisys will provide a Root Cause Analysis (RCA) for the failed DR test. Unisys will remediate the issue (if the root cause identifies that remediation is within Unisys' scope to resolve or provide appropriate remediation requirements to the City for any out of scope issues) and schedule a retest within 90 days of the remediation, as identified in the RCA.

The primary Disaster Recovery Planning staff is an external team to the onsite Unisys delivery team but will require the input from key technical support staff. Disaster Recovery testing will be led by the Unisys DRP external team members and may require onsite Unisys delivery key technical support staff and possibly CSC User Acceptance Test personnel.

DR testing is assumed to occur during non-business hours to minimize impact to CSC agencies and constituents. All charges for DR planning and test exercises, as described above, are included in the Unisys proposal.

The main Disaster Recovery Planning document proposed high level layout and table of contents would be as follows but subject to change during the development process:

1. Introduction
   - 1.1 Purpose
   - 1.2 Objective
   - 1.3 Scope
   - 1.4 Assumptions
   - 1.5 Applicable Standards and Guidance
2. Concept of Operations
   - 2.1 Four Phases
   - 2.2 Data Backup Readiness Information
   - 2.3 Site Readiness Information
   - 2.4 Hybrid Cloud Readiness Information
   - 2.5 Roles and Responsibilities
3. Activation and Notification
   - 3.1 Activation Criteria and Procedure
   - 3.2 Notification Instructions
   - 3.3 Outage Assessment
   - 3.4 Incident Team(s)
   - 3.5 End User Messaging/Communications Plan
4. Plan Activation Procedures
   - 4.1 Media Retrieval and Delivery
   - 4.2 Cloud Backup Data Recovery
   - 4.3 Disaster Recovery Overview
     - 4.2.1 General Application Description
     - 4.2.2 Recovery Contacts
     - 4.2.3 Data Center Overview
   - 4.3 Infrastructure Recovery Procedures
   - 4.4 Critical Business Application Recovery Procedures
   - 4.5 Website Recovery Procedures
   - 4.6 DNS Changes
   - 4.7 Network Recovery Procedures
5. Reconstitution
   - 5.1 Data Validation Testing
   - 5.2 Functional Validation Testing
   - 5.3 Recovery Declaration
   - 5.4 User Notification
   - 5.5 Cleanup
   - 5.6 Returning Backup Media
   - 5.7 Backing up Restored Systems
   - 5.8 Event Documentation
6. Recovery Plan Testing
7. IT Business Restoration (Return to Normal Operations) Plan

Appendices:

- Key Personnel and Team Member Contact List
- Vendor Contact List
- Alternate Telecommunications Provisions
- Diagrams

Network Configurations
Hardware Inventory
Recovery Plan Test Report
Related Documents

Enterprise Architecture Plan

Develop an analysis, blueprint and implementation plan for the City's data, applications, and technology.

The Enterprise Architect will develop and maintain an Enterprise Architecture Plan (EAP) based on an Enterprise Architecture Framework of Architectural Domains, including:

- **Business Architecture (BA) –** structured around mission critical business capabilities/processes based on departmental goals intended to realize the City's Mission and Vision.
- **Information Architecture (IA) –** Information and analytics needs of the business functions, communities of interest, external stakeholders, business partners, etc.
- **Data Architecture (DA) –** structured around the logical data required to support the BA
- **Security Architecture (SA) –** based on the sensitivity and vulnerability of the data (DA) or services (BA)
- **Application Architecture (AA) –** based on the approved application technologies required to realize the mission critical business processes. This domain will include all application layers, such as:

  Access Channels Layer

  Presentation Layer (CX and UX)

  Shared Services Components

  E-Government on-line services

  Enterprise applications

  Department Specific applications

  Middleware Components - Integration Layer; Web Services; Business Rules, etc.

- **Communication Architecture (CA) –** based on the approved technologies required for communication and delivery of services through voice and network capabilities.
- **Infrastructure Architecture (IA) –** based on the approved product technologies required to support the BA, IA, DA, SA, AA, and CA domains. This includes Business Continuity and Disaster Recovery capabilities.

The EA Framework will be leveraged to guide requirements analysis to ensure that new technology components align with the intended Future Vision. Overall, the EAP will provide a high-level view of the City's approach to fulfilling the Future Vision of the IT Strategic Plan and a high-level view into the Tower roadmaps. The EAP will be updated to reflect changes through delivery of projects or CRs and presented as part of the annual update process. (Please refer to 2.1.1.o.).

Deliverable outline

An outline of the "Enterprise Architecture Plan" deliverable that will be produced at the end of the Digital Strategy Plan and IT Strategic Plan development following approval of those deliverables.

#	TOC Major Area	Content area (sub TOC)	Comments
1	City Goals and Vision	* City Goals and Visions - Outside in view of how City will serve Citizens and Constituents * Digital Government Vision and Goals for City * business function and services requirements * Information and Analytics requirements * IT Architecture Drivers	Describes City's Digital Government Goals and Visions for the City as a whole, and specific departments as perceived by leadership of City and Department heads. This introduction is taken from the IT Strategic Plan.
2	Enterprise Architecture Domain Framework and Domain Descriptions	• Description of the domains of the EA Framework • Specification of the meta-data to be captured and maintained within each Domain • Domain detail descriptions, components (bricks), standards, five year upgrade	Based on the results of the Digital Strategy workshops and the IT Strategy analysis, the EA Domain Framework will identify those Architectural Domains to measure and monitor in order to realize the City's goals.

#	TOC Major Area	Content area (sub TOC)	Comments
		plans.	
3	EA Repository	• Description of the EA repository to be used to capture and maintain the Domain meta-data	The Domain meta-data will be used to measure the gaps to be filled in order to realize the City's goals. The EA repository will enable a digital modeling capability that will visibly diagram the alignment of the City's goals to the underlying architecture of the solutions.
4	EA Processes	• Description of processes to be followed in order to maintain the EA Domain Framework in the EA Repository.	The EA Processes are the methods to be applied to ensure that selected projects are staying aligned with the City's business goals.

Tasks / Deliverables / Acceptance Criteria

The Enterprise Architect to develop and present the Enterprise Architecture Plan, which will be updated annually (every 12 months). The Enterprise Architecture Plan will be developed in conjunction with the Digital Strategy Plan and the IT Strategic Plan and will focus on those gaps that must be filled to ensure realization of the City's goals.

	Major Task / Deliverable	Completion / Acceptance criteria
1	Draft (Strawman) Enterprise Architecture Plan (EAP)	Following completion of the Digital Strategy Plan and the IT Strategic Plan, The Enterprise Architect will deliver a draft Enterprise Architecture Plan tailored to the identified gaps the must be closed in order to realize the City's

	Major Task / Deliverable	Completion / Acceptance criteria
		goals.
2	Presentation and Review of the EAP	Review, discussion and adjustment of the EAP to address the identified gaps
3	Finalized EAP	Enterprise Architecture Plan Document (Word doc) completed and presented Finalized document incorporating the comments and recommendations from the Review. Approved by the CIO

Periodic Updates and Ongoing Governance

On an annual basis (every 12 months), following update of the Digital Strategy Plan document and the IT Strategy Plan document, The Enterprise Architecture Plan will be reviewed and updated to address any needed change in Domains or meta-data necessary to address changes to those underlying plans.

Communications Plan

Written plan that provides direction on how the Service Provider will engage with ITD and other City departments on an ongoing basis, including at both the strategic and operational level. The plan will define the frequency, audience and format of the communications.

The communication plan will serve to describe the strategic collaboration approach and how Unisys maintains an effective partnership with ITD and CSC departments. The plan includes the governance, roles and responsibilities for proactive and reactive communication between Unisys and CSC as well as publicizes successful rollouts and keeping the departments in touch with the IT strategic roadmap.

Reactive communications are event based. Examples of reactive communications are notification of a system outage, notification of resolution of a system outage, software upgrade, and project milestones reached. These communications are sent out at the time of the event. Proactive communications are sent out on a regular schedule. They include messages such as service level performance, such as uptime reports, service desk recaps, security awareness, the IT roadmap, Projects portfolio and progress on the Annual Execution Plan, and user education including tips and advice. These communications will be scheduled on a staggered basis to ensure frequent contact with end users, stakeholders, and department heads. The frequency of each communication will be defined in the plan, in addition to who will send out the communication. Depending on the subject, communications may be sent monthly, quarterly, or annually.

Communication channels and levels of communication for each stakeholder group are provided in the plan to accommodate the relevancy of information as well as maintain a transparency with ITD/CSC on project progress as well as issues and/or risks and respective mitigation. The communication plan supports the overall project deployment plan and will be updated as needed based on input from Unisys and ITD/CSC.

The communication plan will also define the style and format (templates) of these communications. It is important that they be informative, brief, and professional.

The Communications plan will provide the following benefits:

1. Inform users about events that may affect them (just in time communications) – upgrade announcements, outage alerts, security bulletins.
2. Publicize IT successes.
3. Transparency of costs.
4. Communicate status of IT initiatives over the long term.

The communication plan provides the following table of contents:

- Overview to service management communication objectives
    - Informing impacted users about events such as upgrades, outages, security awareness;
    - IT performance success, transparency of costs, IT initiative long term status view
- Roles and responsibilities for impacted stakeholders
    - Schedule of Communications
    - Communiciation Content
        - Templates
- Communication guiding principles & activities
    - Project reporting status (including format, review cycle)
    - Stakeholder/steering committee collaboration
    - Communication channels and frequencies
    - Communication of issues and risk mitigation
    - Approval process
- Glossary of terms

ITIL Service Management Standards

Strategy and execution plan for the deployment and ongoing maintenance of tools, documentation of process necessary to have consistent service management within the enterprise

The IT Infrastructure Library (ITIL) is an integrated, process-based, best-practice framework for managing IT services. It provides guidance for creating and operating a service desk that provides efficient communication between the user community and the IT provider. The ServiceNow platform conforms to ITIL v3 processes.

The ServiceNow platform effectively supports ITIL-aligned activities and IT best practices for:

- Incident management
- Problem management
- Knowledge management
- Request fulfillment
- Change management
- Release and deployment
- Service asset and configuration
- Capacity Management
- Financial Management
- Service level management
- Service catalog management.

Unisys deployment/implementation methodology follows the recommended ITIL v3 global processes. Upon completion of the implementation, a data design document will be provided by the ServiceNow implementation (transition) team. The document will contain the configurations that support the above ITIL processes and CSC's specific business requirements. Any changes to the platform and/or the processes will require the Unisys Change Management process to be followed in order to recognize, control, and communicate the changes, then consequently documented and reviewed.

Key activities associated to the ITIL Processes

- Incident management
    - An unplanned interruption to an IT service or reduction in the quality of an IT service. Failure of a configuration item that has not yet impacted service is also an incident."

- The process provides detailed procedural guidance on how different types of interactions should be handled. The primary audience for this document includes Service Desk team, ITIL process team, L2 Support, L3 Support and End users.

- Problem management
  - Problem is an underlying cause of one or more Incidents.
  - The goal of Problem Management Process is to identify and eliminate the Root Cause of the Problem through preventive/corrective actions or reduce the impact of problem on recurrence. In turn, stabilizing the IT environment.

- Knowledge management
  - Knowledge Management Process provides standardized guidelines for creating and managing solutions in an integrated Knowledge Base (KB). This process includes detailed guidelines in subsequent sections to:
    - Create or Modify a Knowledge article
    - Engage the Knowledge Management Team
    - Review, Approve and Publish a Knowledge Article
    - Retire Knowledge Article
    - Retrieve Knowledge Article
    - Assign articles to Article Owners or Groups

- Request fulfillment
  - Service Request Management is the process responsible for managing the lifecycle of all service requests from the users starting with the registration of the request until the fulfillment and closure of the Service Request.
  - The goal of Service Request Management is to reduce the complexity and costs associated with how customers interact with IT at the same time also making sure that the customers are able to request for and obtain services within the lowest possible turnaround time. Customer service & request processes are streamlined through automating end-user management processes. With the effective Service Request Management, you gain business transparency, visibility, and control across all of service support.

- Change management

- Change Management is to ensure that standardized methods and procedures are used for efficient and prompt handling of all changes to control IT infrastructure, in order to minimize the number and impact of any related incidents upon service.

- Release and deployment

  - The Release Management Plan is a high-level description of how the unified Global Process for Release Management is designed and implemented internally within Unisys and externally to our customers, when applicable to the scope of contracted services. The plan provides a framework to design and implement the Release Management activities such as Release Planning, Release Building, Acceptance Testing, Rollout Planning, Release Preparation, Release Deployment and Managing Emergency Releases. This document also lists the various roles and responsibilities in Release Management.

- Service asset and configuration

  - Service Asset & Configuration Management (SACM) is the process responsible for providing accurate and complete configuration information about the infrastructure components, including relationships, to support the other ITSM process.

  - SACM is one of the lifecycle processes in ITIL and is one of the foundations of IT Service Management. This process manages the assets of the organization in order to support the other ITSM processes, provides a logical model of the infrastructure and manages assets and configuration items by identifying, controlling, maintaining and verifying the versions in existence.

- Service level management

  - The process responsible for formal agreements (e.g., Service Level Agreements (SLAs)) and ensuring the supporting agreements (Operation Level Agreements (OLAs)) and contracts (Underpinning Contracts (UCs)) are accurate and up-to-date. This includes the creation of the agreement (planning), obtaining agreement from the business on the content of the SLA, and reviewing service achievements on an on-going basis.

  - Relationship management between the service provider and the business/customer is based on the SLA. Service Level Management relates availability, capacity, performance, and costs to business demand.

- Service catalog management

  - Service Request Catalog Management is the process responsible for creating and managing a catalog of all available services from which an end user may submit request. The Service Request Catalog integrated with Service Request Management encircles not just a list of

all available services, but also the request forms, underlying approval processes and sequenced fulfillment task components.

• The goal of Service Request Catalog Management is to empower the end user to self-support, reduce the complexity and costs associated with how customers interact with IT, to Standardize / Simplify the delivery of critical IT processes and workflows, to reduce work volume, fulfillment time and delivery, through automation. In summary, Service Request Catalog Management improves the effectiveness and efficiency of Service Request Management.

Enterprise Project Management Standards

Strategy and execution plan for the deployment of tools, documentation of processes necessary to advance project management methodologies and provide and enterprise view of project and the plan of record

The Unisys Services and Solutions Delivery Framework (SDF) is the unique One-Unisys framework that is applied to Unisys projects. It is based on the Project Management Institute (PMI) Program Management Book of Knowledge (PMBOK). The SDF provides an effective structure to verify that consistent, high-quality management practices and repeatable processes are applied across Managed Services programs and client projects. Unisys will manage projects with standard processes and practices institutionalized in our SDF methodology.

Unisys will continue to use and update the CSC Project Management methodology residing on the City's CSI SharePoint site and that contains the following high level areas of documents, checklists, templates and other artifacts:

- Requirements Management
- Project Initiation, Charter and Funding
- Project planning
- Schedule management
- Financial management
- Risk management
- Contract management
- Change control
- Third party management
- Measuring, assessing and reporting performance
- Program Management

Unisys will update the above documents to reflect the SAFe Agile methodology being adopted.

Ability to implement an approach to holistically managing the Enterprise IT Portfolio, across the technology life cycle. Furthermore, achieve a clearer focus of the business value of IT assets,

delivering high-value IT projects that are strategically aligned to meet City business requirements.

This will provide visibility to the stakeholders and allow for decision making on the best use of limited funds available for IT and allow for the setting of priorities by the business community.

Overview of Approach

Reflect the SAFe Agile methodology being adopted, which includes but not limited to:

Understand the current state of project and portfolio management in the City

Capture desired vision and outcomes from key executives

Develop the portfolio management framework and processes

Develop and implement a portfolio management repository

Develop and execute a rollout plan to encompass the entire portfolio the CIO is responsible for

Train appropriate staff

Standard processes for portfolio, demand and resource management will be adhered to across the account.

Standard reporting formats for project progress and monitoring and Dashboard Reports will be created and delivered on a periodic basis to provide city stakeholders with an easy to read update on the status of the IT Project Portfolio.

Digital Strategy Plan

Strategic Plan to address digital areas relevant to the City of Santa Clara, including: e-Government Portal, Information Dissemination, Constituent Engagement and Communities, Podcasting, Mobility, Social Media, Analytics, Cloud, Digital Transactions, and Open Government/Open Data

The plan should include:

Defining the City's customer and their unmet needs and goals
Identifying key opportunities and/or challenges
Defining the City's objectives
Financial Analysis
Developing a vision and prioritizing a set of initiatives
Plan Execution and Prioritization of Initiatives
Implementation Governance

Please refer to Section 1.0.C for the Digital Strategy Plan.

The onsite Applications Program Manager, Business SMEs, Enterprise Architect, and Unisys Digital strategy experts will develop and present the digital strategy plan, which will be updated annually.

Unisys will produce a "Digital Strategy Plan and Roadmap" in the first year (within 12 months) after "go live", that is intended to provide a high level framework and prioritized roadmap of Digital Government related projects and initiatives. Following the initial deliverable, this roadmap document will be revalidated and updated at least once every 12 months to reflect any changes in the City's priorities and technological changes.

Unisys will maintain this roadmap and provide effective communications on progress to ensure that the City makes progress on its citizen and community engagement goals through the prioritized roadmap.

Deliverable outline

An outline of the "Digital Strategy Plan" deliverable that will be produced at the end of a four to six week engagement is outlined below.

#	TOC Major Area	Content area (sub TOC)	Comments
1	City Goals and Vision	* City Goals and Visions - Outside in view of how City will serve its customers (Employees, Vendors, Suppliers, partners, Stakeholders, Citizens and Constituents) * Digital Government Vision and Goals for City * Business services and constituent requirements * Information and Analytics requirements * Experience – Branding of the City to ensure experience is consistent and compelling.	Describes City's Digital Government Goals and Visions for the City as a whole, and specific departments as perceived by leadership of City and Department heads

#	TOC Major Area	Content area (sub TOC)	Comments
2	Current State of Digital Technology in the City	* Current State of Digital Government presence, Information Architecture, Technology / Processes in various Departments/City * Capabilities Required to support Future Vision and Goals * Enablers / Barriers that exist today * Existing IT Projects that are underway and their alignment with Digital Gov	Use of Digital Technologies in the City today to serve all customers - processes. Gaps that still exist in order meet the City's stated goals and visions for Digital Government. Technology Enablers that will be required to fill these gaps.
3	Future State Recommendations	*Un-met Digital Government needs * Information Architecture (IA) – Information and analytics needs of the business functions, communities of interest, external stakeholders, business partners, etc. * Prioritized list of business requirements * Projects Defined with High level cost, benefit and Financial Analysis * Prioritized list of Projects * Projects / Initiatives recommended * Implementation Roadmap for 2 to 4 year timeframe	Prioritized list of Projects and Initiatives supported by Financials (high level) costs and benefits and an implementation plan (high level) in a roadmap for the City

#	TOC Major Area	Content area (sub TOC)	Comments
4	Digital Technologies Supplement	* Description of Projects / Digital Technology recommended and how they will be applied * Latest Trends in key Digital Technologies relevant to City - Open Data / Open Gov, Cloud, Mobility, Social Media, Analytics etc (in the projects included in the Roadmap)	Report that identifies innovative products and services in the areas of Digital Government, ***Portals, Information Dissemination, Digital Transactions,*** Analytics, Mobility, IoT, Collaboration, Websites, Digital Workspace of the Future, Constituent Engagement, Business Operations, Social Media, Remote connections etc. that are especially relevant to fulfilling the City's Goals and Vision in closing the gap with current state
5	Ongoing Governance Recommendations	* Methodology, Templates and Documents to track and monitor ongoing implementation * Status Report Template	

Tasks / Deliverables / Acceptance Criteria

Unisys will use a team of Consultants and Digital Government SMEs, and the onsite team of Applications Program Manager, Enterprise Architect to develop and present the digital strategy plan, which will be updated annually (every 12 months).The Unisys team will work with City stakeholders who will be identified prior to the initial kickoff meeting and will be involved during the interviews, and also both of the workshops that will be conducted during the engagement to produce the final deliverable – Digital Strategy Plan.

	Major Task / Deliverable	Completion / Acceptance criteria
1	Engagement Plan with Interview Schedule (Kickoff)	Project Plan Produced and presented to City Stakeholders and approved by the CIO
2	Interviews with Stakeholders of all departments	Interviews completed (Questionnaires and interview notes produced and documented)
3	Preparation for Planning Workshop # 1)	*Planning Deliverable* - PPT Deck and Word Document that outlines City Goals/Mission (for Digital Transformation), Digital Government

	Major Task / Deliverable	Completion / Acceptance criteria
		Capabilities, Enablers and Barriers completed
4	Prioritization/Planning Workshop Completed (#1)	*Planning Deliverable* (updated)- PPT Deck and Word Document that outlines City Goals/Mission (for Digital Transformation), Digital Government Capabilities, Enablers and Barriers completed, with capabilities prioritized after the Workshop, reviewed with City, and approved by the CIO.
5	RoadMap Workshop Completed (#2)	*RoadMap Deliverable* – PPT deck and Word document that describes Initiatives/Projects and their priorities, with High Level Financial Analysis (costs / benefits), priorities, High level implementation plan and Roadmap. Completed and approved by the CIO.
6	Final Presentation and Deliverable Completed	*Final Presentation* to City Stakeholders (PPT Deck) and Final Deliverable – Digital Strategy Plan Document (Word doc) completed, presented and approved by the CIO.

Periodic Updates and Ongoing Governance

Periodic Status reports will be produced regarding the progress of various activities and milestones outlined in the Digital Strategy Plan. This will be tracked by the Unisys PMO, Applications Program Manager, Enterprise Architect as well as Digital Government SMEs and the City stakeholders.

On an annual basis (every 12 months), an abbreviated version of the planning process consisting of one facilitated workshop will be conducted to update and maintain the Digital Strategy Plan document.

Innovative Products and Services Report and Meeting

Written report which identifies innovative products and services of potential use to the enterprise and departments to support business objectives and challenges based on trends in local government customer engagement and business operations service delivery and trends in the general IT marketplace

The Applications Program Manager, Business SMEs, Enterprise Architect, assisted by Unisys Consultants and Local Government SMEs will develop and present semi-annually the Innovative

Products and Services Report (IPSR). The reports will be based on published, general IT marketplace trend data and local government trends in service delivery improvement, such as Smart City initiatives from various municipalities. The IPSR will include products that reflect new ideas or approaches to service delivery or to the introduction of new services which align with the City's Mission and Vision. Based on feedback from the presentation of the IPSR, Unisys will update supporting plans as part of the annual update process (such as the IT Strategic Plans, Digital Strategy Plan and the Enterprise Architecture Plan) to reflect the change in Future Vision, which in turn will be updated in terms of new gaps/projects to develop the new capabilities annually. (Please refer to 2.1.1.o.)

The initial version of the Report will be produced during the development of the Digital Strategy Plan. Subsequently, it will be updated every six months. This will be contained as a sub-component of the Digital Strategy Plan so that the report is closely tied to the Future State recommendations, and the roadmap developed for Digital Government Transformation.

Content Outline for the Innovative Products and Services Report (Sub Chapter of the Digital Strategy Plan document)

#	TOC Major Area	Content area (sub TOC)	Comments
4	Digital Technologies Supplement	* Description of Projects / Digital Technology recommended and how they will be applied * Latest Trends in key Digital Technologies relevant to City - Open Data / Open Gov, Cloud, Mobility, Social Media, Analytics etc (in the projects included in the Roadmap)	Report that identifies innovative products and services in the areas of Smart Cities, Digital Government, Analytics, Mobility, IoT, Collaboration, Digital Workspace of the Future, Customer Engagement, Business Operations, Social Media etc. that are especially relevant to fulfilling the City's Goals and Vision in closing the gap with current state

Tasks / Deliverables / Acceptance Criteria

The initial version will be delivered as a part of the Digital Strategy Plan (refer to this section). Subsequent to the initial version. It will be updated every six months. However, the Digital Strategy Plan document itself will only be updated every 12 months.

Operational Efficiencies Improvement Report and Meeting

Written report which provides the enterprise and departments recommendations for operational improvements that increase efficiency and effectiveness through the better use of existing applications and technology or improved processes

Unisys is committed to delivering quality solutions and services to the City by collaboratively working with them in a structured, formal and transparent manner, with innovation and continual improvement recognized as key to ultimately delivering higher satisfaction.

CSIIP is a program undertaken in collaboration where CSC and Unisys identify and introduce measurable improvements and innovation opportunities. There are increasing demands for organizations to deliver "better, faster and cheaper" services to the public and business partners. This in turn, requires that Information Technology (IT) deliver innovative and cost-effective solutions when supporting their business communities. Unisys partners with the City to deliver continuous operational efficiencies and improvement for our services and innovation for value realization and boost business performance.

The objective of CSIIP is;

- Deliver a formal plan collaboratively with the City to implement improvements and bring in innovation to services and IT processes;
- Utilizes a formal methodology and tool set to enable the tracking and management of the outstanding transition and refresh issues;
- To facilitate the highest satisfaction by providing one single place to collaboratively manage and log improvement initiatives triggered by Continual Service Improvement & Innovation Initiatives. All the different list items and tracking sheet info from the disparate activities are consolidated to a single repository, transparent and visible to both parties, and jointly managed

The CSIIP program will be formally launched via a collaborative workshop with the City. This validates the strategy and objectives, and identifies/classifies/prioritizes the initiatives and contributive actions required, short-term and long-term, along with respective owners. All of the improvement initiatives, innovation plans/roadmaps and related action items are centrally located and managed through the on-going governance structures.

The goal of the workshops is to:

- Identify innovation ideas;
- Categorize the identified idea in terms of functional areas / ownership of project execution;
- Further classify the ideas so that we understand their technical maturity, level of impact they can bring to the program, and ease of implementation;
- Complete high-level opportunity profiles for each innovation opportunity (including more quantitative assessment of ROI and overall benefits) and suitable timing in terms of implementation;
- Determine how these innovations (including project ideas) can be more effectively built into a future state architecture and roadmap for the program.

The governance of the CSIIP component falls within the overall Account Governance structure. Innovation ideas will be analyzed for progress against planned results.

Unisys will update the Operational Efficiencies report, which provides the enterprise and department recommendations for operational improvements that increase efficiency and effectiveness through the better use of existing applications and technology. This report will be reviewed quarterly as part of the operational governance meeting. The onsite delivery team, the Unisys SEO office, the service desk, and other Unisys offsite supporting teams will be responsible for creating and updating this report.

End User and Key Department Personnel Scheduled Customer Satisfaction Survey Report and Meeting

Written report that presents the results of the annual End User and key department personnel scheduled customer satisfaction surveys and recommendations on how to improve areas of customer dissatisfaction.

Unisys will draw from experience and best practices to ensure the survey is planned and executed toward a successful outcome. Unisys and the City will work on a mutually agreeable list of questions for the survey. The survey will be sent to the departments using the ServiceNow framework, which will also collate the results. After a detailed analysis, a report will be provided. The report will include results, provide recommendations, and establish metrics for improvement. Follow-on meetings, as described in the governance processes, will review the metrics, note areas for improvement and action.

Services Strategic Review Report and Meeting

Written report that assesses how Service Provider is performing against enterprise and department strategic objectives of the Agreement and provides relevant service improvement recommendations and action plan

The Enterprise Architect will develop and present annually the Services Strategic Review Report (SSRR) based on the strategic objectives identified in the Enterprise Architecture Plan and the IT Strategic Plan and associated plans, such as the digital strategy. The SSRR will be organized around identified gaps between the Future Vision and the Current State of City capabilities which based on the City's departmental goals. These goals form the foundation for technology projects intended to improve the delivery of services to the City's constituents in the fulfillment of the City's Mission and Vision. The SSRR will identify any gaps in expected deliveries and provide recommendations for remediation including steps to be taken to improve delivery and recommendations for process change or other performance improvements. Any approved change in approach or content of deliverables will also be reflected back into the supporting plans as needed as part of the annual update of those plans. (Please refer to 2.1.1.o.)

Annual Execution Plan

Written plan that outlines the major activities, projects and associated schedules that the Service Provider will perform in the coming year to deliver the Services meeting existing Service Levels and to meet enterprise and department business plans and objectives outlined in the IT Strategic Plan (see Schedule 17).

After the IT Strategic plan and associated plans, such as the digital strategy have been developed, it must be translated into a comprehensive execution plan. The Annual Execution Plan (AEP) will clearly outline the objectives of the Strategic Plans execution, the activities that are needed to achieve these objectives,

who is responsible for these activities, and when the objectives are to be achieved. The AEP will outline the manner in which the strategic vision is to be achieved. The implementation plan translates the strategy into day-to-day management.

The Applications Program Manager and Infrastructure Program Manager will develop the AEP plan to execute the strategy.

First the strategy will be translated into objectives, which will then be used to create the tasks, activities, and responsibilities that are required to achieve the objectives of the strategy. This forms the AEP, or prescriptive work plans, which will be kept short and action-oriented. The AEP will be translated into roadmaps, project plans, and work plans for the Service Towers, so that progress against the AEP and IT strategic plan can be measured.

The plan will be reviewed monthly as part of the Service Tower Review Meetings and adjustments made as appropriate using the change management process.

Technology Refresh Plan

Written plan that to be developed., maintained, updated, and followed by the Service Provider in periodically replacing or refreshing the technology used to perform the Services or provide the deliverables, or otherwise used by the Service Provider and its subcontractors in connection with the systems. The Plan will be aligned to the City's budgeting process.

The Technology Refresh Plan (TRP) is derived from the IT Strategy, Application changes, and Infrastructure capacity. Each of the main towers hardware and software roadmaps; Applications and Data Repositories, Infrastructure, and End Point are updated throughout the year. The Enterprise Architect will work with each tower lead in providing an updated Technology Refresh Plan detailing the technology impacting the City's budgeting process. As such, any new or augmented technology component needed to fulfill the delivery of services or project deliverables will be detailed in the TRP. This will include both the introduction of new capabilities and the upgrade or refresh of existing capabilities with new technology. The Technology Refresh Plan will align with the City's budgeting process by reflecting the budget categories for capital expense. The TRP will also reflect the roadmaps of the Tower plans, Enterprise Architecture Plan, Digital Government Plan, and the IT Strategic Plan in order to provide concrete budgetary estimates of expected costs.

The TRP provides the following table of contents:

- Overview of the TRP objectives

    - Reference to roadmaps and plans that justify the technology proposed that meets the business objectives

- Trade-off analysis of why technology was chosen, or reference therein; congruence with the Enterprise Architecture

- Budget costs and rationalization

- Schedule of milestones to meet City's timelines
- Approval process as applicable

SCHEDULE 3A

CROSS – FUNCTIONAL SERVICES SOW

TO MASTER SERVICE AGREEMENT

BY AND BETWEEN

CITY OF SANTA CLARA

AND

SERVICE PROVIDER

Table of Contents

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1. Overview

This Statement of Work ("SOW") has been entered into pursuant to the Master Services Agreement (the "MSA") between Customer and Service Provider.

2. Service Description and Major Functions

Service Provider will perform the common services and activities that apply to the provision, delivery, and management of all IT services across all Service Towers (collectively, the "Cross Functional Services"). In addition, Service Provider will be responsible for the development, implementation, ongoing maintenance and management of, and upgrades to, the common set of IT life cycle and ITSM processes and tools that will be utilized across all Customer IT service delivery organizations including third party providers (the "ITSM Suite"), and integration of the ITSM Suite with Customer systems, tools and interfaces. Fees for the Cross Functional Services will be included within the Fees for each Service Tower as specified in Schedule 5 to the Agreement. Service Provider will ensure that (A) applicable Service Towers are integrated and consistent with the Cross Functional Services, and (B) the Services are delivered utilizing the cross-Service Tower processes and tool sets (e.g., tools in the ITSM Suite); provided.

Service Provider's provision of the Services shall comply with all applicable standards, policies, and state and federal regulations and laws (e.g., ISO 27001, ISO 17799, PII, PCI, HIPAA, CJIS). Service Provider's provision of the Services shall be consistent with all applicable standards (e.g., ITIL/ITSM, COBIT, CMMI Level 3, ISO 20000, ISO 27301, ISO 21500, ISO 19770).

IT Organization Guiding Principles

The following are guiding principles of the Customer that the Customer expects Service Provider to achieve across the IT services environment. These guiding principles will be a key performance measurement as part of a balanced scorecard contract governance approach. These guiding principles will be a key basis for the eighteen-month review detailed in Section 2.1.3.

- Roles and responsibilities are well-defined and understood.
- The right skills and teams in place to meet service requirements.
- Work is performed effectively in cross-functional groups, not in silos.
- Sound relationships and teamwork exists between teams.
- A strong customer focus will be found among team members.
- Strong and trusted relationships exist with customer groups.
- Service levels are in place with the business that transcends functional groups.
- The business understands the value delivered by the Service Provider.
- A consistent and effective project methodology is in use.
- A clear set of IT principles underlie decision making.
- Clarity in who performs decision making.
- Work priorities are consistent across all IT teams.
- Resources are well-managed.
- The organizational structure is the most appropriate to deliver the services.

Across all Services provided, Service Provider understands that the objective of the relationship is not just for Service Provider to operate the environment, but for Service Provider to take a leading role in driving alignment between IT strategy and Customer IT business objectives with the overall objective of making Customer IT the IT provider of choice for all Customer departments. Each Service Tower will both perform the core responsibilities associated Service operations and driving operational efficiencies as well as contribute to the strategic development of services within Customer's business. At the same time, Service Provider personnel will work seamlessly across Service Towers in such a manner that the Customer / End-User will experience the Services from a seamless perspective (i.e., not siloed by Service Tower). The IT Governance responsibilities section and the associated resources detailed in this SOW provide the core of IT service management but all resources and Services are responsible for contributing

recommendations, expertise and project efforts to continue to transform the services provided to the Customer departments.

Without limiting Service Provider's obligations under the Agreement, including this Schedule 3A and the other Schedules referenced in the Agreement, Service Provider's solution and technical approaches for this Service Area shall conform with the Service Provider's solution and technical approaches as provided in the following documents, as such documents may be amended during the term of this Agreement by the Parties in writing, and which are hereby incorporated into this Schedule 3A by reference. Nothing in the following documents shall limit Service Provider's obligations under the Agreement. If the provisions of this Schedule 3A or any other Schedule (including Appendixes) conflict with one or more of the following documents, the provisions of this Schedule 3A or such other Schedule (including Appendixes) shall control.

- Final Service Area Solutions.docx

2.1.1 Satisfaction Surveys

In addition to the ongoing Service Desk customer satisfaction surveys referenced in Schedule 3B, Service Provider will work with Customer's CIO or their designee to prepare scheduled satisfaction surveys of (1) Customer end users, and (2) Customer department key personnel. These surveys will be distributed to (1) Customer end users, and (2) department directors, managers and key subject matter experts (including the Customer's IT Department ("ITD")) on an annual basis and will be used to measure the overall satisfaction with the operational and strategic services being provided by the Service Provider.

Key components of the customer satisfaction surveys shall include measurement of customer satisfaction with Service Provider performance related to:

- Integration of Services across Service Towers (seamless services to the End-Users)
- Focus on innovation
- Focus on operational improvements
- Business analysis services effectiveness for Customer departments
- Service Provider training in and knowledge of the City's environment (including departments' specific businesses)
- First Call Resolution
- Service Desk's end to end ownership of tickets (regardless of ultimate Incident resolver group or entity that fulfills a Service Request)
- Knowledge of End-User's Service Desk call history and persona
- Knowledge of an End-User's ticket history before engaging an End-User for break-fix or Service Request activities
- Knowledge of the Services and Services available to the End-Users (e.g., service catalog)
- Transparency and proactive communication in ticket handling Service Requests and Incident Resolution
- Knowledgebase currency and relevancy to End-Users
- Level of End-User disruption and time required for patching and testing
- Self-service services
- Online portal for access to Procedures Manual, Service Provider contracted Service Levels, all third party provider documentation (including Service Levels), Customer-provided third party documentation, Service Provider Services reporting, knowledge base, frequently asked questions, self-service services, and an end-user interface for Incident ticket entry and status tracking

Service Provider shall meet with Customer annually and provide a report on its annual End-User and department survey findings to the Customer, including the identification of any areas of Customer

dissatisfaction. Service Provider shall develop, for the Customer's review and approval, service improvement plans as required to address areas of Customer dissatisfaction. This report and meeting is a Critical Deliverable, as set forth in Section 8 below.

Satisfaction Surveys shall meet the associated Service Levels set forth in Schedule 4.

2.1.2 Continuous Service Improvement Process

Service Provider will provide Continuous Service Improvement Processes (Continuous Service Improvement Process at a customer/account-specific level across all Service Towers. Service Provider will foster a culture of continuous improvement where individuals are encouraged to bring ideas based on observations within projects and day to day operations sharing best practices and lessons learned.

As part of its Continuous Service Improvement Process obligations, Service Provider shall be responsible for providing reports to and meeting with the Customer regarding proposed operational improvement recommendations, as well as innovative products and services. These two Critical Deliverables are defined in more detail in Section 8 below.

Additionally, every eighteen (18) months Service Provider will engage a team of Service Provider subject matter experts and management staff to perform a strategic review of the Services and develop a corresponding report to the Customer (the "Services Strategic Review Report"); this written report and related review meeting with Customer will focus on assessing whether Service Provider is meeting the strategic objectives of the relationship and guiding principles of the Customer's ITD as documented earlier in this Section. Service Provider will report on the finding of the review and create action plans for recommendations coming from the review. This activity is also a Critical Deliverable, as identified in Section 8 below.

3. Supported Systems and Quantities

Not applicable to this SOW.

4. Responsibility Matrix

Exhibit 2 sets forth the Responsibility Matrix for services relevant to this SOW.

The responsibilities defined in the cross functional services matrix apply to all services delivered within the account.

5. Support Requirements

Support requirements are specified in Section 5 of Schedules 3B – 3E.

6. Service Levels

Service Levels that apply to this SOW are provided in Schedule 4 – Service Levels.

7. Reports

Service Provider shall provide reports relating to the Cross-Functional Services, as set forth in Schedule 7 – Reports. Service Provider will recommend new reports as capabilities and requirements evolve.

8. Critical Deliverables

Customer has identified a number of Services deliverables that it considers to be of particular importance ("Critical Deliverables"). These Critical Deliverables span Service Towers and are foundational to quality IT service delivery and the Customer's goals and objectives the Agreement. Service Provider shall provide these Critical Deliverables to Customer in accordance with the descriptions and timelines set forth in the table below. In some cases, Critical Milestones may be associated with Service Provider's failure to timely provide such Critical Deliverables to Customer (see Schedule 4 for applicable Critical Milestones and Corrective Assessments). Critical Deliverables are not meant to represent all deliverables Customer expects from the Service Provider.

As of the Effective Date of the Agreement, the Critical Deliverables associated with Cross – Functional Services are provided in the table below.

Deliverable	Description	Timeline
Procedures Manual	Guide that details the standard operating procedures for all services. This has items such as process based procedures such as Incident management as well as functional base tasks such as PC installs.	Customer approved version before the end of transition Updated regularly through change management
IT Strategic Plan	Plan that analyzes the City enterprise IT organization's current state, future state and develops a 2-4 year roadmap to help it achieve identified goals and objectives. Elements include: • Current State: review and assessment of business strategy, vision and goals, capabilities and priorities, financials, IT environment, service gaps • Future State: IT vision, IT capabilities, enterprise architecture, key processes, governance model, performance management • Roadmap: budgeting, identification and prioritization of IT initiatives for the 2-4 year horizon, and strategic plan roadmap development	12 Months from service commencement Updated annually
Information/Cyber Security Plan	A current information security plan and robust set of policies exist as an input. Service Provider will analyze current security posture and provide recommendations to address any areas where deficiencies or threats have been identified for both on prem and cloud assets. Result will be an updated written plan and procedures that provide the operational and technical responsibilities associated with the Security table in this SOW (e.g., data security, physical	Before end of Transition, then every 12 months thereafter Updated as required through change management

Deliverable	Description	Timeline
	security, security operations, patching, malware prevention, monitoring and Incident management, threat and vulnerability management). The Plan must be consistent with the NIST Cybersecurity Framework.	
Business Continuity Plan	The Business Continuity Plan project includes working with key stakeholders to re-validate the City's critical business applications and infrastructure assets based on the already defined prioritization framework and updating/enhancing the existing Business Continuity Plan that encompasses all current mission-critical City Applications and the associated IT assets.	6 months from go-live Updated regularly through change management
Disaster Recovery Plan	This plan is to update and enhance the detailed requirements and design solutions for the recovery of critical IT assets in the event of a major disaster or service disruption.	6 months from service commencement Updated regularly through change management
Enterprise Architecture Plan	Develop an analysis, blueprint and implementation plan for the City's data, applications, and technology.	12 months from go live and every 12 months thereafter Updated as required through change management
Communications Plan	Written plan that provides direction on how the Service Provider will engage with ITD and other City departments on an ongoing basis, including at both the strategic and operational level.	6 months from service commencement and every 12 months thereafter Updated as required through change management
ITIL Service Management Standards	Strategy and execution plan for the deployment and ongoing maintenance of tools, documentation of process necessary to have consistent service management within the enterprise	6 months from go-live Updated regularly through change management
Enterprise Project Management Standards	Strategy and execution plan for the deployment of tools, documentation of processes necessary to advance project management methodologies and provide and enterprise view of project and the plan of record	6 Month from go-live Updated regularly through change management
Digital Strategy Plan	Strategic Plan to address digital areas relevant to municipalities, including: mobility, social media, analytics, cloud, digital transactions, and open government/open data The plan should include:	12 months from go live and every 12 months thereafter Updated as required through change management

Deliverable	Description	Timeline
	• Defining the City's customer and their unmet needs and goals • Identifying key opportunities and/or challenges • Defining the City's objectives • Financial analysis • Developing a vision and prioritizing a set of initiatives • Plan, execution and prioritization of Initiatives • Implementation governance	
Innovative Products and Services Report and Meeting	Written report which identifies innovative products and services of potential use to the enterprise and departments to support business objectives and challenges based on trends in local government customer engagement and business operations service delivery and trends in the general IT marketplace	Every 6 months during the term of the Agreement
Operational Efficiencies Improvement Report and Meeting	Written report which provides the enterprise and departments recommendations for operational improvements that increase efficiency and effectiveness through the better use of existing applications and technology or improved processes	Every 6 months during the term of the Agreement Presented at quarterly Operational Governance meeting
End-User and Key Department Personnel Scheduled Customer Satisfaction Survey Report and Meeting	Written report that presents the results of the annual End-User and key department personnel scheduled customer satisfaction surveys and recommendations on how to improve areas of customer dissatisfaction.	Every 12 months during the term of the Agreement
Services Strategic Review Report and Meeting	Written report that assesses how Service Provider is performing against enterprise and department strategic objectives of the Agreement and provides relevant service improvement recommendations and action plan	Every 12 months during the term of the Agreement
Annual Execution Plan	Written plan that outlines the major activities, projects and associated schedules that the Service Provider will perform in the coming year to deliver the Services meeting existing Service Levels and to meet enterprise and department business plans and objectives outlined in the IT Strategic Plan (see Schedule 17).	Every 12 months during the term of the Agreement Updated regularly through change management
Technology Refresh Plan	Written plan that to be developed., maintained, updated, and followed by the Service Provider in periodically replacing or refreshing the technology used to perform the Services or provide the deliverables, or otherwise used by the	Due each January during the term of the Agreement (to align with the City's annual budget process).

Deliverable	Description	Timeline
	Service Provider and its subcontractors in connection with the systems. The Plan will be aligned to the City's budgeting process.	

9. Changes to MSA

This SOW does not change any terms in the MSA and its Schedules.

EXHIBIT 1 – DEFINITIONS

See Schedule 1 – Definitions for a list of defined terms and associated definitions.

EXHIBIT 2 – RESPONSIBILITY MATRIX

The Responsibility Matrix below shows which party is responsible for the listed task. It is not the intent of the Responsibility Matrix to absolutely identify or define every process, activity or task to be performed by Service Provider as a managed services function.

The responsibility matrices for Cross – Functional Services is set forth below.

GENERAL RESPONSIBILITIES

IT Governance

No.	Function/Responsibility	Service Provider	Customer
	Management and Communication		
1.	Manage and Administer the portfolio of service the Customer delivers to its customers through a customer facing service catalog	X	
2.	Interface with users of Customer IT services to understand where opportunities for improvement exist and make recommendations for portfolio improvements	X	
3.	Interface with other Service Provider customers as well as IT industry and municipal government user groups to understand technical and strategic direction; recommend changes to the service portfolio based on industry best practices and evolution	X	
4.	Develop and execute communication plans (e.g. IT best practices, marketing plans for new services, project success stories, presentation materials for stakeholder meetings)	X	
5.	Approve communication plans		X
6.	Participate in IT Users group meeting, contribute agenda items and lead select agenda items	X	
7.	Participate in IT executive meetings with Customer stakeholders, including Customer departments as required	X	
8.	Participate in other meetings as necessary to support overall objectives	X	
	Standards Management		
9.	Establish and maintain Procedures Manual (e.g., all operations manuals, support plans, user guides, procedures for interacting with the service provider)	X	
10.	Approve Procedures Manual		X
11.	Proactively amend the Procedures Manual as required to reflect current procedures and other designated Procedures Manual content	X	
12.	Provide Customer with online portal access to Procedures Manual	X	
	Project Management		
13.	Establish a governance structure for portfolio and project management		X
14.	Define project priorities for IT enterprise projects		X

No.	Function/Responsibility	Service Provider	Customer
15.	Establish a comprehensive capacity and demand management planning process to include current capacity vs. utilization and capacity requirements projection for a rolling one year period	X	
16.	Provide business demand projections to support Service Provider capacity planning		X
17.	Review and approve capacity management planning process		X
18.	Define, provide and implement tools that allow for the effective capacity monitoring/trending and reporting of IT infrastructure, applications and IT components	X	
19.	Identify future business requirements that will alter capacity requirements (e.g. strategic plan)		X
20.	Participate in all capacity planning activities		X
21.	Assess capacity impacts to all technology when adding, removing or modifying Services, applications and infrastructure	X	
22.	Continually monitor IT resource usage to enable proactive identification of capacity and performance issues	X	
23.	Capture capacity trending information and forecast future Customer capacity requirements based on Customer defined thresholds	X	
24.	Assess Incidents/Problems related to throughput performance	X	
25.	Recommend changes to capacity to improve service performance	X	
26.	Develop and present to Customer quarterly Capacity Management plan	X	
27.	Review and approve quarterly capacity management plan		X
28.	Develop and present quarterly capacity management executive summary	X	
29.	Assess impact/risk and cost of capacity changes	X	
30.	Approve capacity related recommendations		X
31.	Maintain capacity levels to optimize use of existing IT resources and minimize Customer costs to deliver Services at agreed to Service Levels	X	
32.	Ensure adequate capacity exists within the IT environment to meet Service Levels taking into account daily, weekly, hardware and software lifecycle and cyclical business variations in capacity demands	X	
33.	Develop and implement a best practices project management methodology framework	X	
34.	Perform project/sub-project cost estimation for a specific Service Provider scope of work using agreed standard and consistent project estimation tools and techniques that can size projects and can categorize them by level of effort (e.g., minimal, medium, difficult). Coordinate with Customer, third party providers and other third parties as required	X	
35.	Develop and document a detailed project plan and	X	

No.	Function/Responsibility	Service Provider	Customer
	update such project plan on periodic basis as defined by Customer (e.g., monthly, bi-monthly, weekly). The initial project plan and updates thereto will be subject to Customer's review and approval		
36.	Manage projects using industry standard best practices for projects such as infrastructure deployment projects, application implementation projects, and RFP development and vendor selection projects	X	
37.	Provide project management as defined in the project requirements and plan, including Customer, third party providers and other third parties as required	X	
38.	Periodically provide (at the frequency specified by Customer), and review with Customer, Service Provider project metrics reporting on Service Provider's achievement of milestones and acceptance of deliverables and other measurements associated with each project phase, sub-project, and activity	X	
39.	Conduct periodic (e.g., weekly) project status meetings with appropriate Customer stakeholders in accordance with the project communications plan with Customer project manager and other key Customer participants as Customer may require	X	
40.	Participate in periodic project status report meetings		X
41.	Provide written project status reports on a mutually agreed frequency to the Customer project manager, including status updates of applicable items in the project plan (e.g. project schedule, budget), in a format agreed to by Customer and documented in the Procedures Manual	X	
42.	Execute projects in accordance with Customer guidelines and standards and consistent with industry best practices (e.g., PMI best practices), including executing standard project life cycle activities (e.g., project initiation, planning, execution, control and closure, and acceptance)	X	
43.	Review and approve all changes of scope, key milestones, key assumptions, and project budgets		X
44.	Manage and maintain a central repository and project management applications/tool-set	X	
45.	Maintain a central PMO web site	X	
46.	Maintain an executive dashboard for planned and in flight projects	X	
47.	Maintain the portfolio and projects repository	X	
48.	Monitor project portfolios and programs, focusing on the horizontal impact of Customer projects	X	
49.	Manage Service Provider resources utilization both for operations and project usage	X	
50.	Coordinate implementation projects with impacted departments, functional areas and/or vendors and other City stakeholders	X	
51.	Work with departments to facilitate alignment of project work being led by other entities		X

No.	Function/Responsibility	Service Provider	Customer
52.	Prioritize and approve plan of record projects		X
53.	Manage and execute the project status review data gathering process, annual assessment of all IT related projects in the Customer's environment	X	
54.	Assist Customer with reviewing and prioritizing capital IT budget requests	X	
55.	Provide support for planned special events during customer normal business hours and after hours (on an exception basis)	X	
	Other		
56.	Conduct administrative and operations clean up activities on an ongoing basis (e.g., closing inactive accounts, non-active VPN users)	X	
57.	Develop written materials for award applications and presentations for City-attended conferences, as requested by the City	X	

Tools and Knowledgebase

No.	Function/Responsibility	Service Provider	Customer
	Tools		
1.	Provide, manage, maintain, operate and utilize the integrated ITSM Suite and integrated web portal in accordance with industry best practices. The modules will include: ▪ Service Desk ▪ Incident management/problem management ▪ Event management ▪ Configuration management ▪ Change management and release management ▪ Asset management and CMDB ▪ Service Request management ▪ Knowledge management ▪ Software license management ▪ Project management	X	
2.	Develop, document, manage, maintain and utilize cross-Service Tower ITSM processes based on the ITSM Suite standard processes	X	
3.	Provide, manage, maintain, operate and utilize the single secure ITSM web portal for Customer access to all documentation described in the Agreement (e.g., Procedures Manual, Service Provider contracted Service Levels, all third party provider documentation (including Service Levels), Customer-provided third party documentation, Service Provider Services reporting)	X	
4.	Provide, manage, and maintain third party provider access to the ITSM Suite, integrated components and the ITSM web portal for use in the delivery of IT services in their respective service areas	X	
5.	Oversee and enforce use of the integrated ITSM Suite, integrated components and processes and ITSM web	X	

No.	Function/Responsibility	Service Provider	Customer
	portal across Service Towers and third party provider - managed IT service areas		
6.	Provide Customer and third party provider inquiry and reporting access into the ITSM Suite via a real-time access reporting portal in exportable and analyzable format and provide ad hoc and recurring (e.g., monthly) reporting as scheduled or requested by Customer	X	
7.	Design, implement and maintain the ITSM Suite to allow cross-IT operational tool integration and reporting	X	
8.	Integrate the ITSM Suite with Service Desk tools and processes	X	
9.	Develop ITSM Suite reports and dashboards (e.g., performance and balanced scorecard dashboards) to support the execution of responsibilities of key Service Provider and Customer roles and governance bodies and meetings, as defined in Schedule 17 to the Agreement	X	
10.	Provide and maintain a self service web portal for all authorized Customer end users—English-based End-User portal that provides and maintains knowledge base, frequently asked questions, and an end-user interface for Incident ticket entry and status tracking	X	
11.	Provide licenses required for Customer End-User and support staff to access the Suppler provided toolset	X	
12.	Develop a detailed customer facing IT service catalog which details Services offered including all Service options, pricing, installation timeframes, order process (e.g., new, change & remove service) and prerequisites	X	
	Knowledge Management and Knowledgebase		
13.	Develop and execute an enterprise-wide knowledge management plan across all Service Towers and third party services, with roles and responsibilities for Service Provider, Customer and third party providers	X	
14.	Participate in development of knowledge management plan		X
15.	Approve knowledge management plan		X
16.	Develop procedures for knowledge management, based on Client-approved knowledge management plan	X	
17.	Approve knowledge management procedures		X
18.	Create, maintain and update knowledgebase entries on an ongoing basis, as such knowledge is developed (e.g., through Incident Resolution activities, Root Cause Analyses, event management activities, Service Requests, new or modified operational procedures, any new release of information pertaining to changes and upgrades)	X	
19.	Update knowledgebase as relevant, for knowledge that is generated by Customer		X
20.	Provide the support agreements with third party		X

No.	Function/Responsibility	Service Provider	Customer
	vendors for access to knowledge bases and Level 3 support		
21.	Coordinate knowledgebase updates from third party providers as relevant, for knowledge that is generated by third party providers	X	
22.	Provide Customer's authorized end users with single web portal access for all knowledgebases	X	
23.	Maintain accuracy and currency of the knowledgebases in order to meet associated Service Levels	X	
24.	Audit knowledgebases to ensure that Service Provider and Customer are following established knowledge management procedures	X	
25.	Periodically review knowledgebases and provide reporting on accuracy of same		X
26.	Create, maintain and regularly update frequently asked question content for in-scope services available on the self service portal	X	
27.	Make content creation recommendations to the City and third-party service providers for out-of-scope services	X	
28.	Provide templates and best practices to the City and/or third-party Service Providers related to the creation of out-of-scope content	X	
29.	Manage and maintain third party provider documentation in Service Provider managed knowledgebase	X	

CROSS FUNCTIONAL SECURITY RESPONSIBILITIES

Security Services

	High-level Security Functions		
No.	**Function/Responsibility**	**Service Provider**	**Customer**
1.	Forensics/Pentest	X	
2.	Policy Development		X
3.	Policy Compliance	X	
4.	Security Risk Assessment	X	
5.	Physical Security at Service Provider Service Locations	X	
6.	Recommend environmental controls at Customer Service Locations	X	
7.	Provide environmental controls at Customer Service Locations		X
8.	Provide environmental controls at Service Provider Service Locations	X	
9.	Identity and access management (policy, process, procedures)	X	
10.	Access administration & execution	X	

	High-level Security Functions		
No.	**Function/Responsibility**	**Service Provider**	**Customer**
11.	Event monitoring	X	
12.	Alert management	X	
13.	Event logging and reporting	X	
14.	Security Incident management	X	
15.	Security event correlation (SIEM)	X	
16.	Lead security Incident response team (AVERT)	X	
17.	Participate with security Incident response team (AVERT)		X
18.	Patch management (security and non-security)	X	
19.	Malware prevention	X	
20.	Vulnerability scans	X	
21.	Security audits		X
	Detailed Security Services		
	General Security Services		
22.	Provide Customer policies and requirements relating to security		X
23.	Participate in Customer information security awareness programs	X	
24.	Provide a Service Provider information security officer that works with Customer or Third Parties for security requirements and activities	X	
25.	Remain up to date with current IT security trends, threats, common exploits and security best practices	X	
26.	Develop and implement an Information/Cyber Security Plan, to include physical and logical security plans consistent with Customer policies with respect to security and develop and provide documentation demonstrating adherence to Customer policies and requirements relating to security for Customer's review and approval. At a minimum, to include a security framework, end-to-end scope to cover all systems and data, regular risk assessments and threat modeling, proactive Incident response planning, and a committed cyber security resource leading the implementation effort	X	
27.	Review and approve Information / Cyber Security Plan, including physical and logical security plans		X
28.	Protect Customer data, logically and physically, when in use, at rest and during transmission against unauthorized access or modification, which includes compliance with Customer's cyber security standards and any other Customer policies relating to data security	X	
	Physical Security at Customer Service Locations		
29.	Manage the Customer Service Location endpoints (e.g. card readers)		X

	High-level Security Functions		
No.	**Function/Responsibility**	**Service Provider**	**Customer**
30.	Manage cabling to designated interface points at Customer Service Locations	X	
31.	Provision and decommission badges as required for Service Provider Personnel access to Customer Service Locations		X
32.	Provide and manage other Customer Service Location physical security as required by Customer (i.e., guards, video recording)		X
33.	Provide, maintain and report approved Customer Service Location access list for Service Provider Personnel to Customer in accordance with Customer policies and requirements, for Customer's review and approval	X	
34.	Approve Customer Service Location access list		X
35.	Manage third-party access to Service Provider zones in Customer Service Locations in accordance with Customer policies and requirements relating to security (e.g., escorting, badging)	X	
36.	Define and provide Service Provider access zones in Customer Service Locations		X
	Physical Security at Service Provider Service Locations		
37.	Provide physical security at Service Provider Service Locations in accordance with applicable Customer policies, requirements and industry standards	X	
	Security Operations		
	Security Integrity Advisory		
38.	Provide security advisory information to Customer in an agreed upon manner	X	
39.	Evaluate security advisories, assign a risk value and communicate recommended action plan to Customer	X	
	Patch Management		
40.	Recommend Customer policies related to software and security patch deployment and priority levels	X	
41.	Review and approve Customer policies related to software and security patch deployment and priority levels		X
42.	Comply with Customer policies related to software version control and patch management	X	
43.	Review all software and security patches relevant to the IT environment and classify patches based on Customer policies	X	
44.	Install software and security patches in accordance with change management process	X	
45.	Review and approve security patch deployments	X	

	High-level Security Functions		
No.	**Function/Responsibility**	**Service Provider**	**Customer**
	Malware Prevention		
46.	Install, configure and operate malware protection software on service environment device endpoints (where possible) for continuous scanning, eradication and reporting of detected malware and malware Incident Resolution	X	
47.	Deploy anti-malware updates and patches following a Malware Incident per the Customer patch and change and release management procedures	X	
48.	Provide automated detection and removal of malicious code using anti-malware software	X	
49.	Monitor Service Provider information and manage up-to-date information on malicious code outbreaks and deploy the appropriate software signature files to protect against the malicious code	X	
50.	Promptly notify Customer on detection of malicious code within Customer's IT environment	X	
51.	Implement the Customer established action plan and escalation procedures for a malicious code event beyond what is automatically fixed by the anti-malware software	X	
	Security Information and Event Management (SIEM)		
52.	Manage security logs and aggregate data across Service Tower components (e.g., network, security, servers, databases, applications), and consolidate monitored data to help avoid missing important security events	X	
53.	Review event data for common attributes and correlate events into meaningful groups that can be used for risk identification	X	
54.	Provide automated analysis of correlated events and alert Customer, Service Provider team and third parties as required (e.g., dashboard, email)	X	
55.	Provide dashboard reporting tool that takes event data and turns it into informational charts to assist in seeing patterns, or identifying activity that is not forming a standard pattern	X	
56.	Provide automated compliance function that gathers compliance data, and produces reports that adapt to existing security, governance and auditing processes	X	
57.	Retain Customer historical data to facilitate correlation of data over time and comply with Customer data retention requirements	X	
58.	Provide forensic analysis capability (i.e., ability to search across logs on different nodes and time periods based on specific criteria)	X	

	High-level Security Functions		
No.	**Function/Responsibility**	**Service Provider**	**Customer**
	Monitoring and Incident Management		
59.	Provide, implement and manage Customer-approved security analysis and monitoring tools and processes, and provide documentation demonstrating adherence to Customer policies related to security and reporting management	X	
60.	Report security risks and security Incidents to the Customer, in accordance with Customer policies and consistent with Information/Cyber Security Plan Risk Management provisions	X	
61.	Provide documented details of security Incidents, including history and management activities	X	
62.	Resolve security risks and breaches originating from internal and external sources	X	
63.	Coordinate the Resolution of security risks and security Incidents (e.g., denial of service attacks, spoofing, web exploits) originating from outside the Customer IT environment		X
	System Administrative Privilege Support		
64.	Disable terminated users or inactive accounts in accordance with Customer policies	X	
65.	Identify and report to Customer policy violations originating from administrative IDs (e.g., login violations, resource access violations)	X	
66.	Identify and report to Customer systematic attacks (e.g., attempts to logon)	X	
	Security Status Checking and Validation		
67.	Maintain Service Tower documentation required to support security assessments, audits and internal control and control testing	X	
68.	Support audit activities by providing a security assessment audit coordinator to define audit controls and coordinate audits		X
69.	Provide security assessment audit focal point to define audit controls and coordinate audit activities	X	
70.	Provide support for audit activities (e.g., data collection, audit software installation, report generation)	X	
71.	Develop plans to remediate audit findings that do not comply with the established Customer policies and requirements related to security	X	
72.	Review and approve audit findings and remediation plans		X
73.	Implement audit findings remediation plans	X	
74.	Perform security assessments to identify control or security gaps and provide trending problem reports to Customer, and provide remediation plans	X	
75.	Approve remediation plans		X

	High-level Security Functions		
No.	**Function/Responsibility**	**Service Provider**	**Customer**
76.	Conduct security planning and review sessions to review results of security assessments and remediation plans	X	
77.	Implement Customer-approved security assessment remediation plan	X	
	Threat and Vulnerability Management		
78.	Provide integrated monitoring of threats and vulnerabilities for all Configuration Items (CIs) required for the provision of the in-scope Services	X	
79.	Provide automated alerts to the appropriate service delivery teams of pre-defined events, prior to actual performance impact	X	
80.	Provide automated creation of Incident records in the Incident Management tool based on pre-defined thresholds being reached or breached	X	
81.	Provide automated recovery, repair, and/or remediation of threats and vulnerabilities based on alerts and pre-defined rules	X	
82.	Provide automated identification and suggestion of pre-defined recovery, repair, and/or remediation activities to guide operator activities in the event that operator intervention is required	X	
83.	Provide ability to support Customer-directed monitoring activities in addition to the predefined recovery, repair or remediation activities	X	
84.	Provide monitoring and reporting of performance trends to support trend analysis	X	

IT LIFE CYCLE (ITLC) & OPERATIONS SERVICES

"IT Life Cycle and Operations Services" means those functions described in this section and will apply to all Service Area environments (e.g., applications, software, network, hardware, services). Service Provider will manage all Service Tower IT life cycle activities in accordance with the following common life cycle and operational services.

Planning and Analysis Services

No.	Function/Responsibility	Service Provider	Customer
1.	Define Customer requirements at the enterprise and the operating unit level for all Service Towers (e.g., business, technology strategy, functional, Availability, capacity, performance, backup and IT business continuity)		X
2.	Perform Planning and Analysis Services based on Customer requirements (e.g., functional, Availability, capacity, performance, business continuity and disaster recovery)	X	
3.	Provide analysis of alternatives and recommendations, including projects and strategic initiatives, to meet Customer functional and technical objectives and requirements for Customer's review and approval	X	
4.	Review and approve analysis of alternatives and recommendations to meet Customer functional and technical objectives and requirements		X
5.	Execute and provide leadership to deliver on Customer approved Projects and strategic initiatives	X	
6.	Provide information and data as available for Planning and Analysis Services (e.g., business planning reports, enterprise architecture)		X
7.	Monitor technical trends, meet with Customer semi-annually and provide semi-annual reports on innovative products and services with potential use for Customer as they align with Customer's business and technology strategy	X	
8.	Perform assessments for the implementation of new applications and technologies that best meet Customer requirements and cost objectives, as requested by Customer or as otherwise required	X	
9.	Participate in technical and business planning sessions to establish standards, architecture and project initiatives, as requested by Customer or as otherwise required	X	
10.	Manage, maintain and update technology standards for the Customer IT environment (e.g., End-User devices, computing devices, network devices)	X	
11.	Approve technology standards for the Customer IT environment (e.g., End-User devices, computing devices, network devices)		X
12.	Conduct regular planning and conduct regular planning meetings with Customer for technology refreshes and upgrades, as requested by Customer or as otherwise required	X	

No.	Function/Responsibility	Service Provider	Customer
13.	Participate in regular planning and planning meetings with Service Provider for technology refreshes and upgrades		X
14.	Perform technical reviews, semi-annually or as otherwise required, and provide recommendations for operational improvements that increase scalability, reliability, Availability, security, efficiency and effectiveness or reduce costs	X	
15.	Participate in ongoing initial project and strategic initiative-specific planning activities and provide proposals in accordance with the IT life cycle services and processes described in this Schedule	X	
16.	Provide analyses of business impacts related to Service Provider's IT planning and analysis roles and responsibilities described herein based on Service Provider's industry knowledge and capabilities and other business knowledge as applicable (e.g., business process improvements resulting from IT improvement, customer satisfaction improvements, revenue generation, business cost savings)	X	
17.	Provide input to annual budget for Services to Customer	X	
18.	Support Customer's budgeting and planning processes and other requests from Customer	X	

Requirements Definition Services

No.	Function/Responsibility	Service Provider	Customer
1.	Provide appropriate technical support staff (e.g., domain functional experts, solution architects and engineers) to participate in functional and technical requirements development	X	
2.	Facilitate, participate in and conduct requirements gathering activities (e.g., functional and technical) with Customer stakeholders as required to determine Service Tower requirements	X	
3.	Participate in Service Provider-led requirements gathering activities		X
4.	Review and approve requirements with key stakeholders		X
5.	Document requirements necessary to deliver the Services in accordance with Customer defined formats	X	
6.	Ensure requirements meet Customer policies related to security	X	
7.	Document cross-Service Tower and Third Party Provider integration requirements	X	
8.	Define testing requirements and criteria (e.g., unit testing, system testing, performance testing, regression testing, security testing and user acceptance testing) based on Customer policies and	X	

No.	Function/Responsibility	Service Provider	Customer
	procedures for specific events (e.g., production changes, small enhancements, enhancements, projects) for Customer's review and approval		
9.	Approve testing requirements		X
10.	Document requirements and testing criteria for Customer's review and approval	X	
11.	Approve testing criteria		X
12.	Work with Customer or Third Party Providers for end-to-end test plan development (e.g., provide testing requirements, scheduling)	X	
13.	Provide Service Tower and project hours as applicable, following requirements gathering activities as required	X	

Design Specifications

No.	Function/Responsibility	Service Provider	Customer
1.	Provide a design document standard for which all design packages will be delivered	X	
2.	Document and deliver design specifications, including cross-Service Tower integration specifications, for Customer's review and approval	X	
3.	Approve design specifications		X
4.	Provide Service Tower and project hours as applicable, following design gathering activities as required	X	

Integration and Testing

No.	Function/Responsibility	Service Provider	Customer
1.	Develop functional and/or technical system test plans and criteria for Changes to Service Tower components (e.g., unit, system, integration, security, regression)	X	
2.	Prepare test plans for proposed Changes to Service Tower components based on Customer quality assurance and testing polices and processes for Customer's review and approval	X	
3.	Approve test plan		X
4.	Assess and communicate to Customer the overall impact and potential risk to Service Tower components prior to implementing Changes	X	
5.	Evaluate all new and upgraded Service Tower components, configurations or services for compliance with Customer policies and requirements related to security	X	
6.	Implement and support test environments as required	X	
7.	Provide test environment requirements	X	
8.	Approve test environment requirements		X
9.	Conduct testing of Changes to Service Tower	X	

No.	Function/Responsibility	Service Provider	Customer
	components in non-production environments unless otherwise approved by Customer		
10.	Test new releases of supported hardware and software in accordance with test plans to ensure required performance and functionality is maintained and in conformance with Customer policies and requirements	X	
11.	Plan and proactively communicate test plans to Customer in order to minimize Customer/departmental involvement in testing and minimize impact to Customer's business operations	X	
12.	Provide Customer with test results for Changes to Service Tower components and configurations for Customer's review and approval	X	
13.	Approve test results		X
14.	Document all errors discovered in testing and propose a remediation plan	X	
15.	Approve remediation plan		X
16.	Implement known error remediation plan as agreed upon	X	
17.	Conduct retesting as required to fulfill requirements and achieve Customer approval	X	

Implementation and Migration Services

No.	Function/Responsibility	Service Provider	Customer
1.	Coordinate and review all implementation and migration plans and schedules with Customer in advance, to obtain Customer's review and approval, in accordance with change and release management procedures	X	
2.	Approve implementation and migration plans and schedules		X
3.	Perform Service Tower component upgrades as a result of new and enhanced applications, architectures and upgrade plans and requirements	X	
4.	Perform modifications and performance enhancement adjustments to Service Tower components as a result of implementing Changes	X	
5.	Coordinate implementation and migration activities, including Change communication, with Customer and Third Parties	X	
6.	Coordinate and support data migration and conversion by electronic or manual methods as a result of implementation or migration (e.g., databases)	X	
7.	Perform appropriate tests as part of implementation and migration activities (e.g., tests on database IMACs)	X	
8.	Determine user acceptance testing ("UAT") and Service Provider testing support requirements		X

No.	Function/Responsibility	Service Provider	Customer
9.	Conduct UAT		X
10.	Support UAT as required or requested by Customer	X	

Training and Knowledge Transfer Services

No.	Function/Responsibility	Service Provider	Customer
1.	Develop, for Customer's review and approval, and deliver the Customer-approved training program to instruct Customer personnel on the provision of the Services and the Service Provider-managed Customer environment (e.g., "rules of engagement", requesting services)	X	
2.	Approve training program		X
3.	Provide Customer with training related to the current systems and tools, as well as implementation of new products and Services as required	X	
4.	Develop and implement a Customer-approved training program for each Service Tower to ensure that Service Provider Personnel understand key components of the Customer business and technical environment, Customer culture, and are certified to support specific enterprise and business applications	X	
5.	Cause Service Provider personnel to participate in Customer-provided training on Customer's business and technical environment (including Customer culture training)	X	
6.	Conduct new Service (e.g., application system, technology, third party service) on boarding to prepare for support of new Service	X	
7.	Develop and update technical training materials, training plan and documentation and provide training to address Customer's evolving IT environment (e.g., new systems or functionality)	X	
8.	Provide and maintain training materials in a format that is acceptable to Customer (e.g., electronic, hard copy)	X	
9.	Deposit and maintain training and systems documentation in Customer designated knowledge database, training delivery tools or systems	X	
10.	Support End-User training provided by Customer (e.g., by providing training materials, training scripts)	X	
11.	Review and approve all training delivery tools or systems and script materials		X
12.	Prepare for and lead semi-annual meeting to educate Customer departments on service offerings available under this Agreement, including review of IT service catalog	X	

Documentation Services

No.	Function/Responsibility	Service Provider	Customer
1.	Recommend cross-Service Tower and Service Tower-specific knowledge management policies	X	
2.	Review and approve Customer project documentation formats, content standards and document control procedures where required		X
3.	Recommend documentation formats and content in accordance with industry standards (e.g., CMMI-SW Software project best practices, IEEE documentation standards) for Customer's review and approval	X	
4.	Approve documentation format		X
5.	Define and provide the document control procedures, including distribution, document numbering, version control, and naming standards to be used to perform the Services and the Customer document currency requirements		X
6.	Develop, deliver and maintain documentation formats and content in accordance with Customer-approved formats, content, and document control procedures	X	
7.	Document Service Tower component specifications and configurations, including ongoing updates during the course of normal change activities	X	
8.	Approve Service Tower documentation formats and content		X
9.	Develop, document and maintain operating procedures documentation (e.g., run books, boot, failover, batch processing, backup, systems operations and scheduling) through normal change or update activities for Customer's review and approval	X	
10.	Approve operating procedures documentation		X
11.	Provide Customer electronic access (e.g., portal) to any Service Provider or Third Party provider documentation	X	
12.	Maintain documentation and metadata in accordance with Customer policies and requirements related to knowledge management	X	
13.	Document Service Towers' as-built configurations in accordance with the configuration management procedures	X	
14.	Review and approve Service Tower configuration as-built documents		X

Break/Fix and Maintenance Services

No.	Function/Responsibility	Service Provider	Customer
1.	Develop and implement maintenance schedules for Changes and preventive maintenance based on Customer-approved maintenance windows and blackout dates	X	
2.	Provide special dispatch requirements for Customer Service Locations		X

No.	Function/Responsibility	Service Provider	Customer
3.	Perform maintenance and break/fix support	X	
4.	Perform diagnostics and maintenance on Service Tower components (e.g., hardware, software, peripherals)	X	
5.	Test patches and releases received from third party vendors	X	
6.	Approve service packs, firmware, and Software maintenance releases		X
7.	Perform product patch, “bug fix,” service pack installation or upgrades to the current installed version in accordance with Customer policies and change and release management procedures, or oversee and coordinate Third Party provider installations as applicable	X	
8.	Approve product patch, “bug fix,” service pack installation or upgrades		X
9.	Coordinate application of patches and maintenance releases when applied by third party provider	X	
10.	Perform enhancement version release installations, or oversee and coordinate Third Party provider executed upgrades as applicable	X	
11.	Approve enhancement version release installations		X
12.	Perform major release upgrades as a project	X	
13.	Approve major release upgrades		X
14.	Coordinate with third party vendors to identify any impacted interfaces due to vendor-initiated patches and maintenance releases and escalate any impacts with the COTS vendor	X	
15.	Work with Third Party Software providers to resolve issues related to third party provider patches and releases	X	
16.	Perform maintenance-related Software distribution and version control (e.g., Software updates, emergency and standard patches) across applicable Service Provider-supported technology and Service Towers	X	
17.	Approve maintenance-related Software distribution and version control		X
18.	Maintain Software release matrices across all supported IT environments (e.g., development, test, and production environments)	X	
19.	Coordinate with Customer and Third Parties (e.g., Software service providers and developers) to develop the software release matrix for Customer’s review and approval	X	
20.	Conduct appropriate interactions with Customer users for patching and release activities (e.g., End-User communication, coordination and scheduling) to minimize Customer disruption and involvement	X	
21.	Approve software release matrix		X
22.	Review Third Party Software upgrades to ensure N or N-1 level of currency	X	

No.	Function/Responsibility	Service Provider	Customer
23.	Approve Third Party Software upgrades		X
24.	Recommend Software release schedules based on the Customer Software environment and business needs	X	
25.	Approve Software release schedules		X
26.	Conduct maintenance and monitoring during warranty and off-warranty periods	X	
27.	Manage Software, Services to meet Service Levels, minimize downtime and minimize Customer resource requirements, and provide related reporting in accordance with Customer requirements	X	
28.	Provide routine and ad hoc break/fix reporting in accordance with Customer requirements	X	

Technology Refreshment and Replenishment Services

No.	Function/Responsibility	Service Provider	Customer
1.	Update and maintain the Technology Refresh Plan for each applicable Service Tower in accordance with Customer policies related to technology refresh	X	
2.	Perform the necessary services and tasks required to comply with the Technology Refresh Plans	X	
3.	Provide management reports on the progress of the Technology Refresh Plans	X	
4.	Implement the Technology Refresh Plan and provide status reports regarding implementation status as required	X	
5.	Provide assets for technology refreshment and replenishment, unless otherwise specified by Customer		X
6.	Review and approve technology refreshment and replenishment implementation plans		X
7.	Periodically review the approved technology refreshment and replenishment implementation plans to ensure they properly support ongoing Customer business requirements		X

Service Delivery

Capacity Management Services

	Function/Responsibility	Service Provider	Customer
1.	Create and manage a capacity management plan, including documentation for thresholds, and process for identifying, documenting, monitoring, evaluating and making change recommendations to the infrastructure environment to enable capacity requirements are met	X	
2.	Manage IT Services environment to capacity thresholds established in the Capacity Plan and associated Service Levels	X	
3.	Provide monitoring and trend analysis of the capacity of technology, systems or information technology services to identify areas for improvement	X	
4.	Provide remedial activities to resolve capacity issues identified by proactive analysis of the IT environment with respect to usage patterns	X	
5.	Provide trend and strategy analysis to review service capacity against planned future requirements	X	
6.	Estimate the behavior of technology, systems or information technology services under a given volume and variety of work utilizing methods such as analytical simulation, baseline modeling and trend analysis	X	
7.	Estimate the resource requirements to support a proposed application change or new application to so that it meets applicable Service Levels	X	
8.	Advise and recommend the strategic direction and development of information technology infrastructure environment for the future, encompassing assessment and appraisal of new technologies and services in accordance with business requirements	X	

Availability Management Services

	Function/Responsibility	Service Provider	Customer
1.	Understand Client's Availability requirements in order to plan, measure, monitor and continuously improve the Availability of the technology, systems or information technology services, in accordance with relevant Service Levels and identify and agree the elements of service for which Service Provider is responsible	X	
2.	Create and manage an availability management plan to establish an integrated process for identifying, documenting, monitoring, evaluating and controlling Client’s technology, systems or information technology services	X	
3.	Own the end-to-end process across all environments and coordinate and control the participation in the	X	

	process for all service providers, including the provision, support and maintenance of the Availability plan for components of this environment		
4.	Provide input to the Availability plan in relation to CIs in this environment	X	
5.	Analyze and determine the IT environment required to achieve efficient use of resources to deliver service requirements	X	
6.	Monitor and measure Service Levels and key performance indicators for Availability in accordance with the availability management plan and report both status and exceptions	X	
7.	Provide monitoring and trend analysis of the availability, reliability and maintainability of technology, systems or information technology services to identify areas for improvement	X	
8.	Mark recommendations to improve Availability	X	
9.	Review service Availability in accordance with planned future requirements	X	
10.	Provide strategy reviews using trend analysis to review service Availability against planned future requirements	X	
11.	Prioritize and plan for new and enhanced Services in accordance with forecasting activities	X	
12.	Identify threats and vulnerabilities to the ongoing Availability of the Service in accordance with diagnosed trends and future problems	X	

Service Level Management Services

	Function/Responsibility	Service Provider	Customer
1.	Provide Client service reporting through a web-based Customer portal	X	
2.	Develop and maintain Service Level agreements, operating level agreements and underpinning contracts that enable the delivery of the service requirements	X	
3.	Obtain data from the various delivery groups who manage the Services for compilation and analysis against the Service Levels	X	
4.	Conduct periodic scheduled meetings to discuss past service performance and future requirements	X	
5.	Conduct periodic reporting on all service delivery components for Services in accordance with Service Levels	X	
6.	Manage Service Level activities in accordance with the agreed policies and procedures required to support timely, measurable and repeatable analysis of the service being delivered by Service Provider to Client	X	
7.	Work in conjunction with problem and availability management processes to identify underlying difficulties which adversely impact upon service quality	X	

8.	Develop appropriate measurements and review points with respect to service improvement initiatives	X	
9.	Engage with Client representatives to understand and analyze the perception of the service offered and diagnose whether these are reflected in the results of Service Levels	X	

Acquisition and Management Services

No.	Function/Responsibility	Service Provider	Customer
1.	Develop, maintain and periodically provide Service Provider with roadmap of upcoming Customer initiatives and projects, including Annual Execution Plan		X
2.	Develop and issue requests for proposals (RFPs) as required and approved by Customer	X	
3.	Manage and lead overall procurement process for hardware, software and services	X	
4.	Evaluate proposals against clearly defined objective criteria	X	
5.	Provide Customer with detailed pricing proposals for proposed Service Provider acquisitions, as required	X	
6.	Review and approve pricing proposals		X
7.	Negotiate contracts for hardware, Software and services	X	
8.	Review and approve contracts for hardware, Software and services		X
9.	Manage and track Service Provider purchase orders	X	
10.	Receive and store ordered equipment pending scheduling of installation at Customer Service Locations	X	
11.	Expedite resolution of and resolve any and all issues which may arise related to shipping, damaged goods or order errors	X	
12.	Arrange for proper processing of product returns and/or replacement orders by arranging for pick-up/delivery and correction or revision of purchasing paperwork to reflect action taken	X	
13.	Coordinate delivery and installation of new products and services, as required	X	
14.	Ensure that new hardware complies with established Customer IT standards and architectures	X	
15.	Review and approve selection of hardware to be installed in in scope facilities and Software to be installed on in scope hardware		X
16.	Enforce technology standards across the supported environment (e.g., End-User devices, computing devices, network devices)	X	
17.	Maintain copies of the individual receipts and post to portal tool used by Service Provider	X	
18.	Terminate, dispose of according to Customer disposal guidelines and relocate assets as needed/specified and provide quarterly disposition reports	X	
19.	Determine appropriate solution parameters and solicit	X	

No.	Function/Responsibility	Service Provider	Customer
	solution and pricing quotations for off premise solutions (e.g., cloud, SaaS)		
20.	Evaluate solution options and make recommendations to Client for off premise solutions (e.g., cloud, SaaS)	X	
21.	Approve solution options for off premise solutions (e.g., cloud, SaaS)		X
22.	Develop and negotiate SOWs and contracting mechanisms for Customer approved Third Party off premises solutions (e.g., cloud, SaaS)	X	
23.	Review and approve Third Party contracts for third party off premises solutions (e.g., cloud, SaaS)		X
24.	Coordinate implementation, integration and orchestration of Third Party services with Service Provider (e.g. Availability monitoring, performance monitoring)	X	
25.	Perform periodic assessments, and provide assessment results, of procurement procedures for conformance with Customer policies	X	
26.	Assist in periodic assessment of Service Provider procurement procedures		X

Asset Management

No.	Function/Responsibility	Service Provider	Customer
1.	Deploy and manage an asset management system that meets Customer requirements and adheres to Customer policies	X	
2.	Manage the life cycle of all assets from requisition, ordering, inventory, installation, preventive maintenance to disposal	X	
3.	Develop asset type list that would be included in the asset management system (e.g., infrastructure devices: servers, routers, storage devices, switches, End-User devices: desktops, laptops, printers, mobile devices, handsets, conference room equipment)		X
4.	Review asset type list and maintain asset types in the asset management system	X	
5.	Provide Customer with inquiry and reporting access into the asset management system for all assets, including data access via a real-time access reporting portal in exportable and analyzable format and ad hoc and recurring (e.g., monthly) reports	X	
6.	Input, maintain, update, track and report all in-scope assets throughout the asset life cycle (i.e., acquisition to retirement) via an automated self-discovery tool and manual processes where required	X	
7.	Maintain the accuracy of the data of in-scope assets in the asset management system, in accordance with applicable Service Levels	X	
8.	Provide extracts from asset management system for	X	

No.	Function/Responsibility	Service Provider	Customer
	Customer to implement into its various systems (e.g., PeopleSoft)		
9.	Provide a list of asset data elements to be maintained		X
10.	Establish, update, maintain and utilize the asset management information. At a minimum, the following asset information shall be tracked: • Manufacturer • Model • Serial number • Asset identification number • Asset location • Ownership organization information (Service Provider/Customer/Third Parties - lease /purchase) • Asset cost information (e.g., current residual value, purchase price, accumulated depreciation) • Maintenance information and history including the age of the asset • Warranty information • Other billing information (e.g., lease information, Customer specific information) • Transaction edit history (e.g., locations, billing and user) • Software version information (as applicable)	X	
11.	Administer and manage warranty periods for all applicable Service Tower-related assets	X	
12.	Administer maintenance contracts for End-User assets within the scope of the Services		X
13.	Update in-scope asset records during the course of all change activities (e.g., IMACD activities, break/fix activities, enterprise reorganization and change and release management activities)	X	
14.	Perform ongoing asset inventories including at time of refresh to validate that data in the asset management system is accurate and current and that Customer has the data it requires	X	
15.	Provide, and upon Customer approval, implement remediation plans for asset management system and process deficiencies	X	
16.	Approve remediation plans for asset management system and process deficiencies		X
17.	Review and approve physical asset inventory reports		X

Software License Management

No.	Function/Responsibility	Service Provider	Customer
1.	Manage and maintain software licenses information through software license life cycle	X	
2.	Provide software license and maintenance agreement terms and conditions and license ownership data to Service Provider as required to execute the Services described in this table		X
3.	Input, maintain, update, track and report all in-scope Software throughout its life cycle via an automated self-discovery tool and manual processes where required	X	
4.	Provide, manage, maintain and operate the Software license database that integrates with the ITSM Suite	X	
5.	Conduct Service Provider agreement negotiations for non-Customer-retained license agreements	X	
6.	Inform Customer of impacts of non- Customer - retained license agreements	X	
7.	Coordinate and conduct Software license and maintenance agreements reviews allowing for sufficient time prior to expiration for negotiations	X	
8.	Provide Customer with reports and recommendations to use in making Software acquisition and discontinuance decisions	X	
9.	Provide timely and regular recommendations to purchase additional license capacity, recommending alternatives, or curtailing usage where necessary and appropriate, to restore, or continue to maintain, license compliance taking into account Customer's budget cycle	X	
10.	Provide a license and maintenance agreement optimization recommendations report and analysis on a quarterly basis	X	
11.	Proactively manage and perform license audits to prevent license compliance issues	X	
12.	Report known license compliance issues	X	
13.	Review known license compliance issues		X
14.	Conduct periodic reviews 120 days prior to expiration of a Software license and maintenance agreements and provide results to Customer	X	
15.	Obtain approval from Customer for any license change or replacement	X	

Service Support

Event Management Services

	Function/Responsibility	Service Provider	Customer
1.	Monitor and manage the information technology environment in order to reduce the risk of Service disruption using a combination of systems, security, storage, and network administration toolsets	X	
2.	Using established baseline measures to determine appropriate thresholds for the Client computing environment, monitor, analyze and report on these thresholds	X	
3.	Establish and maintain a baseline measurement in order to determine appropriate thresholds for the Client computing environment based on environmental build, technology specific good practice and manufacturer recommendations	X	
4.	Monitor threshold violations on agreed critical application, system, and network components, including system processes and application threads indicating a fault or problem	X	
5.	Analyze the environment configuration, processor performance, memory usage, and input/output utilization to identify potential processing bottlenecks and imbalances in order to make recommendations as to potential changes within the environment	X	
6.	Provide reporting on threshold breaches in accordance with Service Levels and make recommendations to modify threshold limits or operating baselines in the cases of under or over reporting	X	
7.	Collect and report critical resource utilization data at a frequency that accords with the Service Levels and use the data for trend analysis or as an input into capacity planning	X	
8.	Monitor consumable resources against planned allocation and report in accordance with the Service Levels and establish a baseline for infrastructure usage	X	
9.	Analyze and review the monitoring outputs and review the configuration, processor performance, memory usage, and I/O utilization of in-scope environments to identify potential processing bottlenecks and imbalances in order to make recommendations as to potential changes within the environment	X	
10.	Provide enterprise wide computing reporting on resource consumption and utilization activities in accordance with agreed requirements	X	
11.	Monitor, analyze and report on the performance of in-scope systems in accordance with agreed thresholds	X	
12.	Establish thresholds, baselines or profiles of the normal operating levels against which the system can be periodically audited or monitored and establish the normal boundaries for the operating environment or specific applications within the environment	X	

13.	Monitor systems and specific applications for transaction throughput rates, response times and potential performance issues	X	
14.	Monitor the enterprise computing environment to identify potential performance problems based on configuration or environmental factors	X	
15.	Analyze the monitoring outputs and review the configuration, processor performance, memory usage, and I/O utilization of in-scope equipment	X	
16.	Report on the monitoring outputs identifying potential processing bottlenecks and imbalances and to make recommendations as to potential changes within the environment	X	
17.	Review performance reporting and conduct appropriate tuning actions to address any identified performance deficiencies	X	
18.	Provide agreed toolsets to aid management of distributed or centralized devices, their performance and capacity and to provide an event stream	X	
19.	Provide and deploy agreed toolsets	X	
20.	Configure agreed toolsets	X	
21.	Manage and support agreed toolsets	X	

Incident Management Services

	Function/Responsibility	Service Provider	Customer
1.	Restore normal service operation as soon as reasonably practicable with the objective of minimizing impact on business operations and within relevant Service Levels	X	
2.	Create and manage an Incident management plan to establish an integrated process for identifying, documenting, monitoring, evaluating and controlling Incidents, including mapping escalation points	X	
3.	Manage the major Incident process for CIs in this environment during significant downtime or service degradation. Activate process, chair meetings, invoke communication strategy and update dashboards	X	
4.	Depending on Incident activity, participate in appropriate Incident service restoration activities for CIs in this environment	X	
5.	Provide a single repeatable, documented, and approved process with metrics for capturing and managing Incidents	X	
6.	Detect and record details of an Incident into an Incident management system and commence Incident handling procedures. Maintain visibility of the status of Incidents during the Incident cycle to monitor progress of Resolution	X	
7.	Provide Customer with access to Service Provider's Incident management system, in for Customer to directly generate Incident tickets or Service Request,	X	

	and check on status of any open tickets (e.g., break/fix Incidents and Service Requests)		
8.	Classify the Incident based on Priority Level and provide initial support to Resolve the Incident where possible	X	
9.	Provide active queue management for all tickets in the Incident management system and escalate, assign reprioritize as needed, based on existing environment	X	
10.	Link related Incidents and problems to assist in Incident Resolution	X	
11.	Assess, collect and provide detailed analysis of Incident. Attempt to resolve the Incident. If Resolution is not possible, refer the Incident to relevant specialist	X	
12.	Provide ownership, coordination, visibility, monitoring and communication for Incidents to agreed parties in accordance with the Incident management plan	X	
13.	Escalate Incident to appropriate internal or external resolver groups, including third party vendors, as required	X	
14.	Where responsibility for Resolving an Incident is in dispute, communicate with relevant parties to clarify responsibility	X	
15.	Provide suitable means to govern and control the efficient restoration of service after an Incident has occurred	X	
16.	Resolve the Incident and restore normal service operation in accordance with Service Levels	X	
17.	Run ad-hoc queries to support Incident Resolution	X	
18.	For major Incidents in accordance with the Incident management plan, coordinate the post Incident review team and provide the Incident report giving the chronology and analysis of the Incident (including Root Cause Analysis) and the outcomes and recommendations and provide any recommended changes in policy, procedures or operational processes, or relevant Change Requests	X	
19.	Close and categorize the Incident following confirmation of Resolution with End-User	X	

Problem Management Services

	Function/Responsibility	Service Provider	Customer
1.	Aim to minimize the adverse impact on the business of Incidents and Problems that are caused by errors within the information technology environment, and work to prevent the recurrence of Incidents related to those errors. Seek to identify the root cause of Incidents and initiate actions to improve or correct the situation	X	
2.	Provide executive status reports, as required, during the Problem management process	X	

3.	Create and manage a Problem management plan to establish an integrated repeatable, documented, and approved process for identifying, documenting, monitoring, evaluating and controlling Problems	X	
4.	Have the entitlement to own the end-to-end process across all environments. Coordinate and control the participation in the process for all service providers	X	
5.	Depending on problem activity, participate in appropriate Root Cause Analysis and fault isolation activities for CIs in this environment	X	
6.	Register problem in the form of problem records. Oversee the verification, classification and prioritization of problems and the allocation of appropriate resources. Apply Root Cause Analysis procedures to establish the true cause of Problem(s), and develop an error record, to record the known errors, which is issued to inform relevant personnel of identified errors(s) relating to the managed information technology environment	X	
7.	Identify a potential Problem in accordance with the Problem management plan. If accepted as a Problem, record it as a Problem record in the known error database	X	
8.	Determine the amount of effort required to Resolve the Problem and the impact to Service Levels and the business that will occur. This will enable prioritization and resource allocation to be carried out	X	
9.	Arrange for appropriate personnel to identify the amount of time and effort required to investigate the true cause of a Problem. Obtain required approvals for resource allocation, costs and / or schedule and coordinate the Root Cause Analysis	X	
10.	Identify the most suitable solution using observations from Root Cause Analysis, diagnostics taken at the time of impact or occurrence, and modeled data from tests carried out within isolated test environments. May entail setting up a formal task force to attain expert advice to identify the recommended solution. Recommend acquisition, development or enhancement to relevant products required to resolve the problem	X	
11.	Categorize errors and log into problem management system and log workarounds into the known error database	X	
12.	Identify the way that the error will be Resolved and raise required Change Requests, including performing impact analysis on the outcome of the Change Requests	X	
13.	Record the Resolution process for each known error in the problem management system and associate it with a recognized Configuration Item	X	

14.	Once an error is Resolved, close associated known error records and any associated Incidents and Problems. Provide input into post implementation reviews to confirm that the fault Resolution has removed associated Incidents	X	
15.	Monitor the Resolution of known errors and liaise with change management to get regular updates on the progress for resolving problems and errors. Continue to review the impact of problems and known errors, and change their priority if the impact to the business changes	X	
16.	Proactively identify potential issues which could either compromise normal operations or that could be used as opportunities to further improve the quality and efficiency of technology, systems, or information technology services. Analyze historical and real time data as well as any diagnostic information from appropriate data sources at frequent intervals in order to establish any trends, issues and characteristics of events	X	
17.	Diagnose performance, capacity and Availability data presented by infrastructure and application management groups to allow pro-active management of potential risks	X	
18.	Prioritize proactive analysis on in-scope technology, systems or information technology Services, based the level of impact an Incident may have on the Services provided	X	

Configuration Management Services

	Function/Responsibility	Service Provider	Customer
1.	Identify, control changes to, and record the Change implementation status of the physical and functional characteristics and structure of agreed Configuration Items. Includes recording required Configuration Items by type, sub-type and their associated attributes	X	
2.	Create and manage a configuration management plan to establish an integrated process for identifying, documenting, monitoring, evaluating and controlling the Service Provider's configuration management activities	X	
3.	Review and analyze configuration data in order to determine their types and attributes	X	
4.	Maintain the status of Configuration Items throughout their life cycle on an ongoing basis	X	
5.	Configure the configuration management database so that the all Configuration Items within the system are linked to the technology, systems or information technology services they support and to capture baselines for both hardware and Software builds	X	
6.	Check that only authorized and identifiable Configuration Items are accepted and recorded from	X	

	receipt to disposal		
7.	Update the configuration management database with relevant information from change control on an ongoing basis	X	
8.	Verify, audit and report on the status of Configuration Items in the configuration management database	X	
9.	Audit and verify the physical existence of Configuration Items and check they are correctly recorded in the configuration management database and verify release and configuration documentation before changes are made in a production environment	X	
10.	Generate reports on the status or discrepancies of the Configuration Item types and attributes recorded in the configuration management database	X	

Change Management Services

	Function/Responsibility	Service Provider	Customer
1.	Create and manage a change management plan to establish an integrated process for identifying, documenting, monitoring, evaluating and controlling all change activities	X	
2.	Manage changes by chairing, documenting and scheduling regular Change Advisory Board (CAB), and as needed e-CAB meetings	X	
3.	Receive Change Requests and record them in the change management system	X	
4.	Confirm that requests contain required information specified in the change management plan.	X	
5.	Review whether the Change Requests conform to the change types specified in the change management plan and classify the Change Request according to the defined Change types	X	
6.	Perform the initial filtering activity before presenting Change Requests to the change manager for inclusion for review by the CAB	X	
7.	Review and analyze the impact assessment in relation to use of configuration data to enable a decision to be made as to whether or not to accept the Change Request	X	
8.	Review all Change Requests and confirm that they are compliant with agreed policy and procedure (agreed submission standards), accept them into the change management process, notify the initiator accordingly and update the Change schedule	X	
9.	Evaluate and review all non-emergency Changes with relevant stakeholders for the service that is impacted by the Change Request	X	
10.	Agree to, maintain and review the mechanism by which relevant stakeholders are identified and invited to the CAB with Client change management authority and document these mechanisms accordingly	X	
11.	Identify appropriate personnel to carry out Change analysis, modeling and testing activities, and assign	X	

	the Change Request to the appropriate personnel for Resolution		
12.	Perform initial assessment of what will be involved in identifying and designing a solution to complete the Change Request	X	
13.	Authorize the fulfillment of the Change Request		X
14.	Analyze Change Request requirement and build, test and verify the solution and produce an impact analysis report	X	
15.	Design and test the solution required by the Change Request and identify the necessary procedures for any required release (including a valid back-out and recovery plan) for the running, support and maintenance of the defined solution. Include any risk assessment, dependencies and costs	X	
16.	Create an impact analysis report to provide information to the change advisory board	X	
17.	Retain formal approval or rejection rights for Change Requests		X
18.	Notify the appropriate resolver group managers when a Change Request has been approved for implementation. Validate the level of staff resources required to implement the Change and the schedule for completion	X	
19.	Implement the agreed solution in accordance with the approved Change Request and the change management plan	X	
20.	Engage the appropriately scheduled delivery resources to carry out the Change activities in accordance with the approved Change Request and the change management plan	X	
21.	Administer, when appropriate, End-User facing operational acceptance tests that verify the Change has met its operational objectives and is working in the production environment	X	
22.	Facilitate a decision as to whether the Change has been successfully implemented or not	X	
23.	Execute defined backout plans for unsuccessful Changes	X	
24.	Provide ongoing analysis of the implementation of the Change	X	
25.	Schedule the time and resources required to implement an approved or provisional request for Change and manage the forward schedule of Change for the complete end-to-end service and where appropriate, use planned outages to reduce impact of execution of the Change on the availability of the Services	X	
26.	Facilitate the commitment of the required groups of personnel to provide suitable skilled resources to carry out modeling, testing and implementation activities	X	
27.	Monitor the activation of Change activities in accordance with the forward schedule of change and escalate if activities are not completed in accordance with the schedule or as otherwise agreed. Facilitate	X	

	remedial activities to reinstate Change schedule wherever possible		
28.	Monitor the updates to the forward schedule of Change to show the progression of Change Requests through approval and implementation phases	X	
29.	Monitor and update Change records in accordance with agreed milestones and key activities required to complete Change	X	
30.	Coordinate the update of all relevant management databases in accordance with the expected delivery of the solution	X	
31.	Perform activities following Change Request closure to evaluate the effectiveness of the Change	X	
32.	Provide reports on failed Change to the change advisory board or Client contact and provide relevant reports to personnel responsible for Service Level management with the objective of preventing any relevant service from breaching agreed consumption parameters	X	
33.	Analyze failed Change and identify process break downs and lessons learned that should either be promoted as Problem candidates or result in updates of documentation	X	
34.	Close the Change Request following implementation acceptance or rejection	X	X
35.	Create and manage a change management plan to establish an integrated process for identifying, documenting, monitoring, evaluating and controlling all Change activities	X	

Disaster Recovery and Business Continuity Management Services

	Function/Responsibility	Service Provider	Customer
1.	Establish, maintain and update a Business Continuity Plan (“BCP”) and Disaster Recovery Plan (“DRP”) for the Services, which will define objectives and standards necessary for Services to meet business requirements	X	
2.	Make recommendations for Service or infrastructure enhancements to align the infrastructure and Services to the BCP and DRP	X	
3.	Document business continuity and Disaster recovery process in the Procedures Manual; execute the process for in-scope environment when appropriate	X	
4.	Approve Disaster Recovery Plan approach documented by Service Provider and provide support in creating the plan		X
5.	Maintain a list of key personnel contacts and notification procedures for the Client, Service Provider, and Third Party vendor personnel used	X	
6.	Perform annual test of the Business Continuity Plan	X	
7.	Perform annual test of the Disaster Recovery Plan	X	

8.	Provide a single point of contact for Business Continuity and Disaster Recovery Plans, related communications and other activities that are Service Provider's responsibility	X	
9.	Establish and maintain a Business Continuity Plan and Disaster Recovery Plan which will define objectives and standards necessary for Services to meet business requirements	X	
10.	Perform duties as defined in the Disaster Recovery Plan when a Disaster has been declared	X	

Service Integration Services

	Function/Responsibility	Service Provider	Customer
1.	Conduct end-to-end monitoring and reporting of all IT services across all Customer IT systems supported by Third Parties including cloud services and SaaS services	X	
2.	Conduct bi-direction transfer of data and automated routing of Incidents and Service Requests, from Customer to Third Party delivery teams and vice versa	X	
3.	Provide visibility into Incident and service requests across all Third Party delivery teams and systems	X	
4.	Track and report Incident restoration and Service Request fulfillment activities by operator, hand-offs and outcomes at each hand-off	X	
5.	Provide automated time stamping at each instance of automated updates, operator updates, customer contact, hand-offs between operators and change in Incident or Service Request status	X	
6.	Provide automated routing of tickets to the appropriate support teams	X	
7.	Measure and report end-to-end Service Request response and completion, and service restoration times to provide a single measure of service response restoration time objectives	X	
8.	Manage and deliver support articles and other knowledge articles to all relevant Customer and Third Party delivery teams, regardless of the repository of these articles	X	
9.	Provide real-time performance dashboards available to Customer, with ability to review and audit the data	X	

EXHIBIT 3: SUPPORTED ENVIRONMENTS AND TOOLS

The service environment descriptions in each Service Tower-specific schedule to Schedule 3 to the Agreement describes and scopes a number of Service Tower elements to be supported and with which Service Provider will comply (e.g., in-scope hardware and Software). This Schedule will apply to the service environments as specified in each such Service Tower-specific schedule. The supported environments that are included in each SOW are not limiting, but rather represent a specific point in time as it relates to the in scope environment. Service Provider shall be responsible for updating and maintaining the service environment documentation the term of the Agreement, to reflect changes in the Customer's supported environment over time.

The tools that Service Provider will provide and use to perform the Cross Functional Services include the tools set forth in this Exhibit 3 and attached hereto. Service Provider will update the list of tools in this Exhibit throughout the term of the Agreement.

SCHEDULE 3A

EXHIBIT 3

CROSS-FUNCTIONAL MANAGEMENT TOOLS

TO

MASTER SERVICES AGREEMENT

BY AND BETWEEN

CITY OF SANTA CLARA

AND

UNISYS CORPORATION

Schedule 3A, Exhibit 3

Cross Functional Management Tools

This is Schedule 3A, Exhibit 3 (Cross Functional Management Tools) to the Agreement between the City of Santa Clara and Service Provider.

Service Provider shall provide and utilize the tools listed in Table 1 below, in connection with its performance of the Services.

Table 1. Cross Functional Services Management Tools

Cross Functional Services Tools		
Function	**Product**	**Description**
Project Management	JIRA Microsoft Project	JIRA will be used as part of the Agile/DevOps process to provide workflow management and issue tracking. Microsoft Project is a City owned tool and used by Unisys to develop and track projects according to the PMO methodology.
Key Performance Indicator (KPI) Monitoring and Reporting	ServiceNow ITSM applications	Reporting capabilities include reports from predefined report and the ability to generate snapshots of current data and allows users to save, share, publish, or export any of the reports as needed.
Ad Hoc Reporting and Analytics	ServiceNow Reporting and Analytics	Reporting capabilities include reports from predefined report and the ability to generate snapshots of current data and allows users to save, share, publish, or export any of the reports as needed. Analytics provide access to KPI's to generate interactive visualizations.
Service Management including: • Incident Management • Problem Management • Knowledge Management • Employee Self-Service (ESS) portal • Service Catalog / Service Request Management • Service Level Management • Satisfaction Survey • Change Management • Release Management • Asset Management • Configuration Management (CMDB) • Password Reset	ServiceNow ITSM applications	The ServiceNow platform provides a single system of record and engagement that is shared across all of the ITIL/ITSM processes. The processes natively share information and common workflow and are tightly integrated with all the other modules and processes within ServiceNow.
Automated Monitoring Tools—Servers	VANDA (Nagios)	Monitors Server elements and alerts when a threshold is breached.
Automated Monitoring Tools—Network Devices	VANDA (Nagios) Cisco Prime Infrastructure	Monitors Network elements and alerts when a threshold is breached or a hardware issue is detected on a network device. Cisco Prime Infrastructure is a City owned tool and used by Unisys to provide real-time monitoring and management of all network devices including WAP's and alerts when a threshold is breached or a hardware issue is detected. Additionally it provides firmware security update notices from Cisco.
Automated Monitoring Tools—Applications	VANDA (Nagios)	Monitors Application elements and alerts when a threshold is breached.

Automated Monitoring Tools—Infrastructure	VANDA (Nagios)	VANDA monitors server and network elements and alerts when a threshold is breached. Dell OpenManage monitors the health of all physical servers and alerts when there is a hardware issue on a physical server.
	Nimble InfoSight	Nimble InfoSight is a City owned tool and used by Unisys to monitor and manage the Nimble storage and alert when a threshold is breached or a hardware issue is detected.
	HP ArcSight (SIEM service)	HP ArcSight provides monitoring of security events and provides a correlation to produce actionable security alerts.
	Solar Winds IPAM	Solar Winds IPAM is a City owned tool and used by Unisys to provide monitoring and reporting on IP Addresses within the environment.
	Solar Winds Bandwidth Monitor	Solar Winds Bandwidth Monitor is a City owned tool and used by Unisys to alert when a threshold is breached on key network connection and trunks.
Automated Monitoring Tools—Network Operations Center (NOC)	ServiceNow Event Manager	ServiceNow Event Manager automatically creates actionable alerts from infrastructure events captured from monitoring tools such as VANDA and HP ArcSight.
Reporting Portal	ServiceNow ITSM applications	Reporting capabilities include reports from predefined report and the ability to generate snapshots of current data and allows users to save, share, publish, or export any of the reports as needed.
Knowledge Management	ServiceNow ITSM applications	Knowledge Base application provides role-based tools to create, store, and publish important information. It also provides tools for all users to find and view the information as needed. Contextual search is enabled throughout the platform.
Electronic Software Distribution and Version Control	SCCM	SCCM is a City owned tool and used by Unisys to deploy software and Microsoft Security Patches. The server does not perform version control per-say, but it has the capability to run reports to see which versions of software are installed in the environment.
	GitHub	GitHub will be used for application source version control management.
Backup and Recovery	Symantec NetBackup	Symantec NetBackup is a City owned tool and used by Unisys for tape and offsite retention.
	Nimble Snapshots	Nimble Snapshots is a City owned tool and used by Unisys to restore files locally within a 30 day timeframe.
	VSC (Volume Shadow Copy)	VSC is a City owned tool and used by Unisys for further backup/restore capabilities.
Capacity Management Monitoring/Trending/Reporting	VANDA (Nagios), Solar Winds Virtualization Manager	VANDA (Nagios) and Solar Winds Virtualization Manager (which is a City owned tool) are used to monitor/trend/report on VMware virtual environment

	Nimble InfoSight	Nimble InfoSight is a City owned tool and used by Unisys to provide performance and capacity reports for the Nimble storage arrays. ServiceNow ITSM applications
	ServiceNow ITSM applications	ServiceNow ITSM Capacity Management ensures that business services are not made unavailable by over-capacity. By analyzing past failures and planning for growth of demand of services, Capacity Management can increase end-user satisfaction with services.
Discovery	ServiceNow Discovery	ServiceNow Discovery module finds applications and devices on the network, then updates the CMDB with the information if finds.

SCHEDULE 3B

SERVICE DESK SERVICES SOW

TO MASTER SERVICE AGREEMENT

BY AND BETWEEN

CITY OF SANTA CLARA

AND

SERVICE PROVIDER

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1. Overview

This Statement of Work for Service Desk services ("SOW") has been entered into pursuant to the Master Service Agreement (the "MSA") between Customer and Service Provider.

In addition to the Service Desk Services, Service Provider will perform the cross-functional functions described in Schedule 3A to the Agreement.

Capitalized terms used in this SOW have the meanings set forth in Exhibit 1. Capitalized terms not defined in this SOW or Exhibit 1 will have the meanings specified in the MSA.

2. Service Description and Major Functions

The primary objective of this SOW is to establish a customer focused, first call Resolution Service Desk. Service Provider will provide Service Desk Services that will be the first point of contact for information system Incidents, inquiries and Service Requests related to Customer's environment. Service Desk services include support for all Incidents that are Resolvable by the Service Desk and the escalation of Incidents it is unable to Resolve to the appropriate Level 2 or Level 3 Resolver groups for Resolution.

Customer expects that the Service Provider Service Desk will be capable of either directly Resolving or triaging and escalating the categories of Incidents and Service Requests set forth in the table below. A list of specific Level 1 Resolvable Incident types for each category shall be developed during transition and updated during the term of the Agreement, to reflect additional maturity and knowledge of the Client's environment over time. It is Customer's intent that the Service Desk's increased ability to directly Resolve such Incidents and Service Requests, along with robust end user self-help capabilities and tools, will result in the increased availability of Service Provider's onsite analysts and technical support staff to focus on higher "value add" activities, rather than Resolving Level 1-based Incidents and Service Requests (i.e., a "shift left" approach).

Customer also expects that the Service Desk will possess and exhibit a depth of End-User profile knowledge and history when End-Users contact the Service Desk (e.g., End-User's "persona", including knowledge of End-User's department/position/function, Service Desk Incident/Service Request history, most often utilized Service Desk services, preferred method of communication).

In addition, Customer expects that the Service Desk will take proactive approach to Incident and Problem Resolution as much as possible (e.g., proactively correlating multiple Incidents from different End-Users with the same underlying root cause in order to find a Resolution for all affected End-Users, proactively identifying and addressing downstream issues identified through Incident Resolution of a particular Incident, proactively notifying relevant End-Users groups of Service-affecting Incidents and Problems before End-Users have to contact the Service Desk to inform them of issues).

Service Desk Scope:

Infrastructure Incidents	
Hardware support	▪ Computing hardware (e.g., desktops, servers) ▪ Mobile devices (e.g., laptops, cell phones, smart phones, tablets) ▪ Audio visual equipment ▪ Printers ▪ Multi-function devices ▪ Peripherals (e.g., scanners) ▪ Public safety mobile data computers
System Software	▪ Operating systems and utilities support ▪ Database support
Integration and telecommunications	▪ Third party connectivity ▪ Network components and circuits (e.g., WAN, LAN) ▪ VOIP and traditional telephony system (e.g., handsets, soft phones, speaker phones) ▪ Video conferencing ▪ Internet connectivity
Application Systems Incidents	
Application systems Incidents and “how to” support	▪ Packaged shrink wrap Software (e.g., Microsoft Office/Office 365, Adobe) ▪ Enterprise and department Third Party line of business COTS application systems (e.g., agenda management system, permit management systems) ▪ Customer custom application systems ▪ Cloud-based applications systems (e.g., SaaS) ▪ Electronic transactions and interfaces (e.g., Cybersource) ▪ Mobile applications
Service Requests	
End-User requests	▪ Password resets ▪ IMACD requests ▪ IT order fulfillment requests – project and individual product requests

Without limiting Service Provider’s obligations under the Agreement, including this Schedule 3B and the other Schedules referenced in the Agreement, Service Provider’s solution and technical approaches for this Service Area shall conform with the Service Provider’s solution and technical approaches as provided in the following documents, as such documents may be amended during the term of this Agreement by the Parties in writing, and which are hereby incorporated into this Schedule 3B by reference. Nothing in the following documents shall limit Service Provider’s obligations under the Agreement. If the provisions of this Schedule 3B or any other Schedule (including Appendixes) conflict with one or more of the following documents, the provisions of this Schedule 3B or such other Schedule (including Appendixes) shall control.

- Final Service Area Solutions.docx

3. Service Desk Level 1 Resolvable Activities

As of the Effective Date, the Service Desk shall have the expertise to directly Resolve the following types of Incidents and Service Requests without escalation to any internal or external Resolver group (i.e., first contact Resolution)

- Support for all in scope shrink wrap software (e.g., Microsoft Office/Office 365 suite, Adobe), including “how to” support and basic troubleshooting

- Basic “how to” support and troubleshooting for standard hardware (e.g., desktops. laptops, mobile devices, printers, multi-functional devices, peripherals), operating systems and utilities, enterprise and business applications
- Password Resets and unlocks
- Service Requests, including initiation of IMACDs and new equipment requests, and end user account requests
- Connectivity issues
- Documented, common hardware error messages

For Customer enterprise and business applications, Customer expects that Service Provider will continually add to the list of Level 1 and Level 2 Incidents the Service Desk is capable of Resolving on a first contact basis, based upon the enterprise knowledge base, which will be updated with information accessible by the Service Desk.

4. Responsibility Matrix

Exhibit 2 sets forth the Responsibility Matrix for services relevant to this SOW.

5. Support Requirements

Service Provider will provide Service Desk Services 24x7x365.

Service Provider will perform the Services in accordance with the Service Levels as defined in Section 6 based on the anticipated consumption data provided by Client.

6. Service Levels

The Service Levels applicable for Service Desk services is provided in Schedule 4 - Service Levels. Customer may change or add Service Levels through the Change Control procedures.

7. Reports

Service Provider shall provide reports relating to the Service Desk Services, as set forth in Schedule 7 – Reports.

8. Critical Deliverables

There are no Critical Deliverables associated with this SOW.

9. Changes to MSA

This SOW does not change any terms in the MSA and its Schedules.

EXHIBIT 1: DEFINITIONS

See Schedule 1 - Definitions for definitions applicable to this Schedule.

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EXHIBIT 2: RESPONSIBILITY MATRIX

The Responsibility Matrix below shows which party is responsible for the listed task. It is not the intent of the Responsibility Matrix to absolutely identify or define every process, activity or task to be performed by Service Provider as a managed services function.

The responsibility matrix for Service Desk Services is set out below.

No.	Responsibility	Service Provider	Customer
	General Responsibilities		
1.	Recommend, implement and manage Customer-approved, ITIL-compliant Service Desk systems (e.g., Incident tracking system, self-help tools, IVR, ACD, CTI), which are components of the integrated ITSM Suite described in Schedule 3A to the Agreement, in order to collect, track and manage Incidents and Service Requests received by the Service Desk	X	
2.	Approve systems to collect, track and manage Incidents and Service Requests received by the Service Desk		X
3.	Provide SPOC, coordination, and end-to-end ownership for all Incidents and Service Requests	X	
4.	Provide expert Level 1 assistance to inquiries on the features, functions and usage of supported systems	X	
5.	Identify, escalate (e.g., Level 2 and Level 3 escalation), manage Incident Resolution and close Incidents	X	
6.	Provide contact list and routing information for non-Service Provider Resolver groups on, at minimum, a monthly basis		X
7.	Develop process for conducting a quarterly review of new types of Incidents and Service Requests the Service Desk is able to Resolve on a First Contact Resolution basis	X	
8.	Approve process for conducting a quarterly review of new types of Incidents and Service Requests the Service Desk is able to Resolve on a First Contact Resolution basis		X
9.	Conduct quarterly review of new types of Incidents and Service Requests the Service Desk is able to Resolve on a First Contact Resolution basis with Customer	X	
10.	Manage the Root Cause Analysis process on recurring Incidents	X	
11.	Utilize and coordinate asset management during service desk customer support activities	X	
	Single Point of Contact		
12.	Provide SPOC call-in access number for all Service Desk Services described in this SOW	X	
13.	Provide multiple alternative communications channels, including email, chat and Intranet	X	
14.	Utilize multiple alternative communications channels, including email and Intranet	X	
	Service Desk Operations		
15.	Develop, document and provide operational procedures which meet the City requirements and adhere to defined Service Desk policies	X	
16.	Review and approve operational procedures		X
17.	Develop End-User persona structure for unique profiles of all Customer End-Users (e.g., name, title, department, functional role, Service Desk Incident/Service Request history, most often utilized Service Desk services, preferred	X	

No.	Responsibility	Service Provider	Customer
	method of communication)		
18.	Review and approve End-User persona structure		X
19.	Develop, manage and maintain End-User persona profiles for Customer End-Users	X	
20.	Develop End-User persona profiles for Customer End-Users		
21.	Receive, track, answer and Resolve Customer End-User and technical staff Incidents	X	
22.	Utilize End-User persona profiles when interacting with End-Users	X	
23.	Coordinate IMACs for all Service Towers covered within the Agreement	X	
24.	Provide “how to” and Level 2 assistance for the Customer defined shrink wrap and COTS software included in its End-User environment	X	
25.	Provide end-to-end Incident identification, escalation, Resolution and closure process	X	
	Service Desk Administration		
26.	Track/manage/report Service Desk utilization	X	
27.	Provide escalation contact list(s) for Customer and Third Party Resolver groups contacts		X
28.	Maintain and provide escalation contact list(s) for all Service Towers (including Third Parties such as vendors and service providers)	X	
29.	Issue broadcasts or other notices to provide status updates as required for planned and unplanned events	X	
30.	Provide End-User or manager online/portal access to Incident reports	X	
31.	Develop procedures for conducting End-User satisfaction surveys after Incident Resolution or Service Request fulfillment	X	
32.	Review and approve procedures for conducting End-User satisfaction surveys		X
33.	Conduct End-User satisfaction surveys based on Customer approved procedures	X	
34.	Develop and implement continuous improvement program that improves Service Desk delivery	X	
35.	Review End-User Satisfaction surveys weekly and contact End-Users whose average score is not a 4 or higher on a 5 point scale (or equivalent), and incorporate findings into continuous improvement plan	X	
36.	Develop and deliver recommendations for solutions to improve Service Desk delivery	X	
37.	Approve recommended solutions to improve Service Desk delivery		X
38.	Implement Customer-approved recommendations to improve Service Desk delivery	X	
	Service Request and Incident Management		
39.	Identify and describe priorities, response and Resolution targets for Incidents and Service Requests that have differing impacts	X	
40.	Select and implement a system to document, manage and track all requests for Service, Incident reports and inquiries	X	

No.	Responsibility	Service Provider	Customer
	regardless of the means by which the Service Request is submitted (e.g., telephone, email, fax, direct online input by End-Users)		
41.	Approve a system to document, manage and track all requests for Service, Incident reports and inquiries regardless of the means by which the Service Request is submitted		X
42.	Develop and provide procedures to receive and respond to Incidents and Service Requests according to defined prioritization, escalation and Resolution targets	X	
43.	Review and approve procedures to receive and respond to Incidents and Service Requests		X
44.	Review and approve procedures for the escalation and notification of Incidents		X
45.	Execute procedures for the escalation and notification of Incidents using approved escalation contact lists and using automated helpdesk/ITSM tools	X	
46.	Resolve Incidents within prescribed time limits, if possible, otherwise escalate and/or notify to appropriate Level 2 resource	X	
47.	Coordinate Level 2 support and service for printers, scanners and fax machines	X	
48.	Coordinate Level 2 support and service for approved mobile devices	X	
49.	Coordinate Resolution of security Incidents across Service Towers	X	
50.	Provide initial troubleshooting for non-supported Customer devices	X	
51.	Identify Incident characteristics and root cause	X	
52.	Categorize, prioritize and log all IT Incidents	X	
53.	Monitor Incidents (Service Desk Incidents) and escalate/notify per policies and procedures until Resolution and End-User satisfaction	X	
54.	Notify End-User upon closure of IT Incidents (e.g., inquiries /problems /Service Requests)	X	
55.	Verify acceptance of Services by contacting the End-User to confirm results and level of satisfaction	X	
56.	Provide End-User or manager ticketing system access to submit Incident or Service Request tickets	X	
57.	Review recurring Incidents with Customer which meet defined criteria using Root Cause Analysis processes	X	
58.	Proactively address the downstream or peripheral effects of Incident Resolution activities relating to single End-Users (e.g., updating passwords on all of an End-User's devices when the End-User contacts the Service Desk for password reset assistance regarding one specific device) and multiple End-Users (e.g., correlating related Incidents from multiple End-Users and taking proactive action to notify the End-User community as required (e.g., outage notifications))	X	
59.	Implement automated Incident and Problem correlation solution that will correlate Service Desk contacts to previous Incidents to identify repeat contacts for improperly resolved/closed Incidents, and correlate root causes and CIs to identify repeat Incidents to identify patterns of	X	

No.	Responsibility	Service Provider	Customer
	Problems		
60.	Coordinate with asset inventory and configuration management to record and update records to reflect completed Service Request (IMACs and others)	X	
61.	Notify third-party service vendors who are under contract to the Customer to provide support	X	
62.	Track and report Incident response and Resolution activities of third party service vendors	X	
63.	Escalate Incident if Third Party vendors do not provide effective service	X	
	Remote Desktop Management		
64.	Recommend policies for the use of remote control tools for maintenance and troubleshooting	X	
65.	Define policies for the use of remote control tools for maintenance and troubleshooting	X	
66.	Diagnose Incidents using remote control capability and when possible implement corrective actions to Resolve Incidents. If Resolution is not possible, escalate per the escalation/notification procedures	X	
67.	Provide remote installs and updates of City standard packed applications, as required to Resolve Incidents	X	
68.	Assist in enabling the enforcement of compliance to standards and the appropriate optimization of End-User devices	X	
	End-User Administration Services		
69.	Recommend requirements and policies regarding End-User Administration	X	
70.	Approve requirements and policies regarding End-User Administration		X
71.	Receive, coordinate and track End-User account administration, activation, changes and terminations based on Customer documented policies for the same, including: password/account setup, remote access connectivity, e-mail accounts, User IDs, remote paging devices, voicemail administration, telephone lines, etc. (coordination includes document routing for approval)	X	
72.	Reset passwords as required in accordance with Customer's security policies	X	
	IMACD		
73.	Receive and track requests for IMACDs	X	
74.	Schedule an appropriate, agreed time with End-User for the IMACD to take place in remote offices	X	
75.	Verify completion of IMACDs by contacting the End-User to confirm satisfaction	X	
	Self-Help Support		
76.	Develop Self-Help Support plan for Customer environment, to include self services capabilities and provision approach	X	
77.	Review and approve Self-Help Support plan		X
78.	Develop and implement Customer-approved Self-Help Support plan and associated capabilities that enable end users to perform self-service. Such self-help capabilities may include: ▪ Information Bulletin Board – Contains bulletins on planned changes or outages and Incidents and	X	

No.	Responsibility	Service Provider	Customer
	Problems affecting multiple users ▪ Knowledgebase search – Allows End-Users to search for solutions at any time, from any place, in order to Resolve issues on their own or find out about IT processes ▪ FAQs – Provides answers to a structured, evolving list of frequently asked questions ▪ Web submissions – Allows End-Users to report Incidents or place Service Requests (including forms submittal) ▪ Status checks – End-Users can view the status of Incidents and Service Requests they initiated ▪ Self-service Password Reset – Allows End-Users to automatically reset passwords ▪ IT Service Catalog – Provides access to Service Provider's IT service catalog and online submission forms for service and product requests		
79.	Monitor and review the effectiveness of Self-Help Support capabilities and usage	X	
80.	Develop and provide recommendations for improvements to Self-Help Support capabilities	X	
81.	Review and approve recommendations for improvements to Self-Help Support capabilities		X
82.	Implement approved recommendations for improvements to Self-Help Support capabilities and update Self Help Plan	X	
	Reporting		
83.	Recommend a list of Service Desk management reports	X	
84.	Review and approve list of Service Desk management reports		X
85.	Provide reporting on Incident and Problem trending and analysis on a regular basis as defined in reporting requirements (e.g., proactive analysis and investigation of Incidents and Problems impacting Service Towers)	X	
86.	Track, manage and report on Service Desk utilization and volume statistics and trends (e.g., Service Request volumes and trends by contact type) and identify types of contacts that could be addressed through Service Desk improvements (e.g., training, self-service tools)	X	
87.	Proactively work with Customer and applicable Third Parties to address trend analysis report findings, such as identifying and implementing solutions that minimize Incidents and Service Requests and the need to contact the Service Desk (e.g., application system errors, additional end user training, self-help capabilities, improved Root Cause Analysis)	X	
88.	Recommend, and implement Customer-approved, Service Desk improvements	X	
89.	Provide online/portal access to Service Desk reports	X	
	First Contact Resolution Management		
90.	Develop and maintain a list of Level 1 and Level 2 Resolvable Incidents (i.e., Incidents that the Service Desk is able to Resolve without having to escalate to an alternative internal or external Resolver group)	X	
91.	Continually update list of Level 1 and Level 2 Resolvable	X	

No.	Responsibility	Service Provider	Customer
	Incidents based on updates to knowledge bases and Service Desk reports		
92.	Ensure that Service Provider's Service Desk staff are appropriately trained to achieve Customer's First Contact Resolution goals and Service Levels (e.g., trained on the Customer's specific environments)	X	
	Knowledge Base		
93.	Provide initial knowledge base, during transition, for all supported technologies including scripts, technical architecture, and logistical information (such as, site access procedures); inform Service Provider of Customer-driven changes to the initial knowledge base through the change management process		X
94.	Manage and maintain knowledge base, to include Incidents, Problems and Resolutions, Root Cause Analyses and any new release information pertaining to Changes and upgrades	X	
95.	Use knowledge base information to improve the number of and type of Level 1 and Level 2 Incidents that are Resolvable by the Service Desk and end users through self-help (i.e., "shift left")	X	
96.	Document solutions to Resolved Incidents in knowledge base and update Service Desk scripts	X	
97.	Make knowledge base available to all Customer End-Users	X	
	Governance-Related Activities		
98.	Report and review status of Level 1 Service Desk improvement initiatives during monthly operational governance meetings	X	
99.	Implement Customer-approved Level 1 improvement initiatives	X	
100.	Based on operational observations, recommend changes to IT governance for service enhancements to improve the services delivered by IT	X	

EXHIBIT 3 – SUPPORTED HARDWARE, SOFTWARE AND TOOLS

The Service Desk will support the hardware and Software in Customer's environment, including such hardware and Software existing as of the applicable Service Commencement Date and new hardware and Software added during the Term (the "Service Desk Supported Hardware" and "Service Desk Supported Software," respectively). The Service Desk Supported Hardware and Service Desk Supported Software includes the hardware and Software set forth in this Schedule 3B, Exhibit 3, attached hereto.

The software and tools that Service Provider will use in the delivery of the Service Desk Services include those set forth in this Schedule 3B, Exhibit 3, attached hereto.

Service Provider will update Schedule 3B, Exhibit 3 throughout the term of the Agreement.

SCHEDULE 3B

EXHIBIT 3

SERVICE DESK MANAGEMENT TOOLS

TO

MASTER SERVICES AGREEMENT

BY AND BETWEEN

CITY OF SANTA CLARA

AND

UNISYS CORPORATION

Schedule 3B, Exhibit 3

Service Desk Management Tools

This is Schedule 3B, Exhibit 3 (Service Desk Management Tools) to the Agreement between the City of Santa Clara and Service Provider.

Service Provider shall provide and utilize the tools listed in Table 1 below, in connection with its performance of the Services.

Table 1. Service Desk Management Tools

Service Desk Management Tools		
Function	**Product**	**Description**
Service Level & Key Performance Indicator (KPI) Monitoring and Reporting	ServiceNow ITSM applications	Reporting capabilities include reports from predefined report and the ability to generate snapshots of current data and allows users to save, share, publish, or export any of the reports as needed. Analytics provide access to KPI's to generate interactive visualizations.
Password Self-Service	ServiceNow Password Reset application with Orchestration module	Password reset enables end users to reset their own passwords using self-service and automation. The Service Desk assisted password reset feature is an alternative approach that provides a streamlined process to quickly fulfill password reset requests. This is enabled by an orchestration workflow to one back-end credential store, i.e. AD.
Account Management, DNS support	Windows Active Directory	Unisys uses the Windows Active Directory Functionality (provided by the City) to perform this support.
Outage Notification	ServiceNow Portal ACD/IVR	Outage notification will be posted on ServiceNow End User portal as needed to support key outages to employees. Outages and notification will also be posted on the front end of the IVR for callers as directed by the City
Ad Hoc Reporting and Analytics	ServiceNow Reporting and Analytics	Reporting capabilities include reports from predefined report and the ability to generate snapshots of current data and allows users to save, share, publish, or export any of the reports as needed. Analytics provide access to KPI's to generate interactive visualizations.
Service Management, Including Change, Configuration, Incident, Release, and Problem Management Remote Control	ServiceNow ITSM applications LogMeIn	The ServiceNow platform provides a single system of record and engagement that is shared across all of the ITIL/ITSM processes. The processes natively share information and common workflow and are tightly integrated with all the other modules and processes within ServiceNow. The Unisys LogMeIn Rescue remote control solution delivers secure remote access in an appliance model and provides advanced support capabilities such as reboot/reconnect, two-way file transfer and session recording

SCHEDULE 3C

END-USER SERVICES SOW

TO MASTER SERVICE AGREEMENT

BY AND BETWEEN

CITY OF SANTA CLARA

AND

SERVICE PROVIDER

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1. Overview

This Statement of Work for End-User services ("SOW") has been entered into pursuant to the Master Services Agreement (the "MSA") between Customer and Service Provider.

In addition to the End-User Services, Service Provider will perform the cross-functional functions described in Schedule 3A to the Agreement.

Service Provider will be responsible for providing the tools required to deliver the End-User Services set forth in this Schedule, unless otherwise agreed to by Customer.

Capitalized terms used in this SOW have the meanings set forth in Exhibit 1.

2. Service Description and Major Functions

The primary objective of End-User Services is to provide Customer with a stable and reliable End-User environment so that they can effectively perform City business. This includes all activities associated with the procurement, maintenance, inventory, design, selection, implementation, utilization, modification, testing and configuration, troubleshooting and Incident and Problem Resolution for all of End-User devices, Software, data and network connectivity. This SOW defines the responsibilities for delivering End-User Services.

Service Provider shall provide and support the Customer End-User environment listed in Section 3 of this SOW, which represents a point in time listing of the current End-User environment components and which the Parties agree will change over the term of the Agreement.

Working in conjunction with the Service Desk Service Provider will provide comprehensive End-User Services that include:

- End-User Device Management, including:
  - Core Software and Application Software Image Management
  - Application installation
  - Asset management
  - Remote troubleshooting
- Field Services, including:
  - Device Software support
  - Install, Move, Add, Change, Decommission (IMACD)
  - Mobile device administration and management
  - L1 output fleet triage
  - Data network cabling triage
- Public Safety-related Services (Police and Fire)
  - Mobile Data Computing (MDC) device support, including imaging, IMACDs, Incident and Problem management (break/fix), patching and maintenance
- Peripheral Device Level 2 Break/Fix
  - Audio visual projectors
  - Audio and video conference equipment and connectivity
- City Council and Commission meeting equipment support
- VIP Support
  - End-User support for Customers individuals identified VIPs, who may require expedited Services or after hours support
- VOIP Phone System Support (Level 1 and Level 2 support)

Without limiting Service Provider's obligations under the Agreement, including this Schedule 3C and the other Schedules referenced in the Agreement, Service Provider's solution and technical approaches for this Service Area shall conform with the Service Provider's solution and technical approaches as provided in the following documents, as such documents may be amended during the term of this Agreement by the Parties in writing, and which are hereby incorporated into this Schedule 3C by reference. Nothing in the following documents shall limit Service Provider's obligations under the Agreement. If the provisions of this Schedule 3C or any other Schedule (including Appendixes) conflict with one or more of the following documents, the provisions of this Schedule 3C or such other Schedule (including Appendixes) shall control.

- Final Service Area Solutions.docx

3. Supported Systems and Quantities

The baseline quantities supported by Enterprise Compute Services are listed in Schedule 5 – Fees.

4. Responsibility Matrix

Exhibit 2 sets forth the Responsibility Matrix for services relevant to this SOW.

5. Support Requirements

Service Provider will provide End-User Services during the following Customer business hours.

Department/Customer End-User Group	Required Support Hours	Type of Support Required
Standard Business Hours (all Customer Departments)	Monday – Friday, 7:00 a.m. – 7:00 p.m. Pacific	On site, remote
VIPs	24x7 (on an exception basis)	On call, remote
City Council and City Committees (for evening meetings)	7:00 p.m. – 7:30 p.m. (as needed on an exception basis, no more than once per week on average)	On site, remote

6. Service Levels

The Service Levels applicable for End-User Services is provided in Schedule 4 – Service Levels. Customer may change or add Service Levels through the Change Control procedures.

7. Reports

Service Provider shall provide reports relating to the End-User Services, as set forth in Schedule 7 – Reports.

8. Critical Deliverables

As of the Effective Date of the Agreement, there are no Critical Deliverables associated with End-User Services.

9. Changes to MSA

This SOW does not change any terms in the MSA and its Schedules.

EXHIBIT 1: DEFINITIONS

See Schedule 1 – Definitions for definitions applicable to this Schedule.

EXHIBIT 2: RESPONSIBILITY MATRIX

The Responsibility Matrix below shows which party is responsible for the listed task. It is not the intent of the Responsibility Matrix to absolutely identify or define every process, activity or task to be performed by Service Provider as a managed services function.

Service Provider's responsibilities for the End-User Services apply to all computing devices including desktop PCs and mobile devices (e.g., laptops, tablets, smart phones, public safety devices (e.g., MDCs)).

The responsibility matrix for End-User Services is set forth below.

No.	Responsibility	Service Provider	Customer
	Core Software Image Build and Deployment		
1.	Define Core Software image(s) specifications for End-User devices	X	
2.	Provide business requirements required for Service Provider to define Core Software image(s)		X
3.	Develop, document, and maintain detailed technical specifications that define and support the build, test, and deployment plans for the standard Core Software image(s)	X	
4.	Review and approve standard Core Software image specifications		X
5.	Provide representative new and legacy hardware for Image testing		X
6.	Build Core Software images for End-User devices	X	
7.	Conduct system-level and End-User testing of Core Software image(s) to validate that they perform in accordance with the approved specifications	X	
8.	Review and approve Core Software image testing results		X
9.	Approve Core Software image(s) for deployment		X
10.	Distribute core software images to OEM, VARs and resolver teams as required	X	
11.	Provide approval, licenses and Software prior to certification, packaging and deployment		X
12.	Deploy approved Core Software image(s) on applicable devices	X	
13.	Provide and administer Software distribution tools	X	
14.	Recreate End-User device environment to previous state including base build plus all End-User specific features, functions and applications, in cases where End-User's device has been adversely modified due to unsuccessful Core Software Image deployments	X	
15.	Automate Core Software image deployment processes (e.g., remote electronic upgrading of device images)	X	
16.	Provide image package lifecycle management tracking and reporting (e.g., all packages in the Customer environment, packages being redone)	X	
	Application Software Image Build and Deployment		
17.	Define Application Software image specifications and deployment plans	X	
18.	Provide business requirements required for Service Provider to define Application Software image(s)		X
19.	Review and approve Application Software image specifications and deployment plans		X

No.	Responsibility	Service Provider	Customer
20.	Build the Customer Application Software image	X	
21.	Conduct End-User testing of Application Software image(s)	X	
22.	Validate that software images perform in accordance with the approved specifications		X
23.	Approve Application Software image(s) for deployment		X
24.	Conduct deployment testing to verify that images can be deployed successfully and operate with all supported applications, hardware and Software	X	
25.	Manage deployment efforts using formal project management tools, methodologies and standards (e.g., ITIL change and configuration management practices)	X	
26.	Electronically deploy approved Application Software image(s) on applicable devices	X	
27.	Provide image package lifecycle management tracking and reporting (e.g., all packages in the Customer environment, packages being redone)	X	
28.	Manage and maintain the End-User device software portfolio	X	
	IMACDs		
29.	Perform equipment and software installations, moves, adds, changes, and disposals (“IMACDs”) and re-installations in accordance with the specific Service Request, procedures and other application policies (e.g., information security policies)	X	
30.	Conduct data and application migration that is necessary due to any hardware or software IMACDs and re-installations	X	
31.	Perform coordination functions for the management and allocation of IMACDs	X	
32.	Receive equipment in accordance with the IMACD Service Request	X	
33.	Service equipment in accordance with the IMACD Service Request	X	
34.	Provide End-User basic user training as requested when installing a new standard device	X	
35.	Maintain a Definitive Software Library (DSL), which holds the master copy and associated documentation for Software	X	
36.	Package and transit equipment to new internal Customer location	X	
37.	Package of equipment to new sites or locations	X	
38.	Formal sign-off of device handover to the End User after completion of IMACD Service Request	X	
39.	Provide and install firmware updates and upgrades on the physical device	X	
40.	Provide on-site desk side support in order to assist help End Users Resolve Incidents and/or to fulfill Service Requests that cannot be addressed by remote means	X	
41.	Apply asset management tags and update appropriate database (e.g., asset management database) per the Procedures Manual	X	
	Break-Fix		
42.	Coordinate with the Service Desk and all other necessary Service Provider, Third Party and Customer support organizations to manage all on-site break/fix Incidents and Service Requests to Resolution and closure	X	

No.	Responsibility	Service Provider	Customer
43.	Coordinate with End-User or other site staff to schedule on-site technical support visit in response to an escalated Incident or Service Request	X	
44.	Dispatch appropriate Level 2 or Level 3 technician(s) in response to an escalated Incident or Service Request, including out of scope hardware components, if authorized by Customer (Service Provider to provide support for out of scope hardware components on a best efforts basis)	X	
45.	Provide Level 2 onsite break/fix support for Customer peripheral devices (e.g., audio visual projectors, conference room video and audio equipment)	X	
46.	Provide after-hours Level 2 or 3 support for City Council and Commission meetings	X	
47.	Review Service Desk ticket history including previous tickets for the same issue such as status and Resolution before arrival at on-site Customer location where work will be performed (e.g., response to break/fix Incident, Service Request, IMACD)	X	
48.	Minimize handoff of open tickets to new Service Provider End-User personnel when possible	X	
49.	Troubleshoot, diagnose, and Resolve Incidents for devices, including removing and/or repairing physically broken or inoperable devices	X	
50.	Conduct proactive and preventative maintenance of devices for which support has been requested during each on-site technical support visit	X	
51.	Install malware protection software (e.g., anti-virus, anti-SPAM, anti-spyware) on all network attached devices for which Service Provider discovers inadequate or improper virus protection	X	
52.	Maintain agreements with vendor/third party for repair of in-warranty equipment		X
53.	Coordinate with OEM hardware maintenance supplier to repair failed hardware for in-warranty devices	X	
54.	Diagnose and identify/confirm fault and execute process defined in Procedures Manual for service of non-warranty device failures. This may entail replacement with a spare after initial triage or initiation of the procurement process	X	
55.	Use of swap pool or 'hot-swap' devices as appropriate, or use of Customer supplied parts to repair for non-warranty devices	X	
56.	Obtain quote for repair then obtain authorization from Customer for expenditure for repair of non-warranty devices	X	
57.	Restore work area to pre-repair condition	X	
58.	Obtain End-User acknowledgment for Resolution of Incident or completion of Service Request	X	
59.	Update knowledge base during and after Resolution of break/fix Incidents and Service Requests	X	
	Swap Pool and Spares Management		
60.	Establish and maintain equipment sparing requirements and spares inventory levels to meet Service Levels	X	
61.	Package and ship failed equipment to the manufacturer or authorized third party for repair	X	
62.	Position and store spare equipment in accordance with	X	

No.	Responsibility	Service Provider	Customer
	agreed policies or protocols		
63.	Provide a quarterly report identifying equipment at or near end-of-life and its impact on spare parts inventories and service repairs	X	
64.	Provide loan equipment for the temporary replacement of hardware that requires off-site repair		X
65.	Maintain financial responsibility for spare systems required for provisioning, and maintenance of spare parts inventory		X
66.	Administer manufacturer warranty repair or replacement on pool spares equipment	X	
	VIP Support		
67.	Prioritize and escalate Incidents from End-Users and determine those that fall under agreed criteria for special handling such as VIP executive support or other business critical systems and functions	X	
68.	Provide list of VIP users and update as necessary		X
69.	Provide after-hours Level 2 or 3 on-site support for Customer VIPs, as requested on an exception basis	X	
	Mobile Device Administration		
70.	Set up new user accounts on mobile devices	X	
71.	Establish mobile device connectivity with Customer networks as relevant (e.g., wired network, Wi-Fi, public safety networks) and ensure that End-User is able to access Customer resources required to perform their job (e.g., systems access)	X	
72.	Set mobile device settings in accordance with Customer approved policies (e.g. security, accessibility, data)	X	
73.	Install Customer required applications that may not be included in the Core Software or Application Software images	X	
74.	Establish connectivity to approved City mobile application capabilities (e.g., on premise COTS, SaaS)	X	
	Smart Phone and Tablet-Specific Administration and Support		
75.	Establish voice and/or data service connectivity for Customer through Third Party service providers as relevant	X	
76.	Create a process for authorizing the provisioning of smartphones and tablets and manage aspects of provisioning, maintenance, support and termination of Services	X	
77.	Coordinate the repair of smartphones and tablets	X	
78.	Contact the appropriate Third Party service provider(s) to arrange repair	X	
79.	Obtain a RMA (return materials authorization) if required	X	
80.	Coordinate the issuance of new smartphones and tablets, the replacement of lost or stolen smartphones and tablets, and the recovery of smartphones and tablets no longer required	X	
81.	Provide mailbox and calendar service management for authorized smartphones and tablets	X	
82.	Re-load data or back up files as necessary	X	
	Printers, Plotters, Scanners, MFD, Copier Support		
83.	Provide on-site Level 1 triage for printers, scanners, plotters, MFDs, copiers	X	
84.	Maintain support agreements with Third Party providers for Level 2 and Level 3 break-fix		X
85.	Coordinate with Third Party service providers for Level 2 and	X	

No.	Responsibility	Service Provider	Customer
	Level 3 support and hardware break-fix		
	LAN Cabling		
86.	Triage LAN / voice cabling issues and coordinate repair with cabling vendor if required	X	
87.	Establish support agreements with cabling vendor as required		X
88.	Manage and maintain the End-User device software portfolio		
89.	Coordinate Third Party Level 2 and Level 3 support for LAN cabling	X	
	Continuous Improvement		
90.	Assist departments to configure and obtain quotations for hardware and End-User software purchases	X	
91.	Recommend and maintain hardware standards for End-User hardware	X	

EXHIBIT 3: END-USER SUPPORTED HARDWARE, SOFTWARE, TOOLS AND IMAGES

The Service Provider will support the hardware and Software in the End-User environment, including such hardware and Software existing as of the applicable Service Commencement Date and new hardware and Software added during the Term (the "End-User Supported Hardware" and "End-User Supported Software," respectively). The End-User Supported Hardware and End-User Supported Software includes the hardware and software set forth in Schedule 3B, Exhibit 3 (Service Desk and End-User Supported Hardware and Software).

Service Provider will support all Customer-defined core images in the End User environment, including such images existing as of the applicable Service Commencement Date and new images added during the term of the Agreement. The End-User Supported Hardware and End-User Supported Images includes the images set forth in this Schedule 3C, Exhibit 3, attached hereto.

The tools and that Service Provider will use in the delivery of the End User Services include those set forth in this Schedule 3C, Exhibit 3, attached hereto.

Service Provider will update Schedule 3C, Exhibit 3 throughout the term of the Agreement.

SCHEDULE 3C

EXHIBIT 3

END USER MANAGEMENT TOOLS

TO

MASTER SERVICES AGREEMENT

BY AND BETWEEN

CITY OF SANTA CLARA

AND

UNISYS CORPORATION

Schedule 3C, Exhibit 3

End User Management Tools

This is Schedule 3C, Exhibit 3 (End User Management Tools) to the Agreement between the City of Santa Clara and Service Provider.

Service Provider shall provide and utilize the tools listed in Table 1 below, in connection with its performance of the Services.

Table 1. End User Management Tools

End User Management Tools		
Function	**Product**	**Description**
Electronic Software Distribution and Version Control	City provided Microsoft System Center Configuration Manager (SCCM)	Enterprise Device Management S/W for distribution of s/w, images, patches.
Core Security and Vulnerability Protection	City Provided System Center Endpoint Protection (SCEP) functionality;	Used for antivirus and anti-malware protection.
OS Imaging, Device Management, Patches, Distribution	1 - City provided Microsoft System Center Configuration Manager (SCCM) 2 - Microsoft provided MDT (Microsoft Deployment Toolkit)	1 - Enterprise Device Management S/W for distribution of s/w, images, patches. 2 – Microsoft freeware for image development and distribution
Account Management, DNS support	City Provided Windows Active Directory	Unisys uses the Windows Active Directory Functionality to perform this support.
Flexera Admin Studio, licensed by Unisys for CSC Account Use	Application Packaging Tool Suite by Flexera	Flexera Admin Studio, licensed by Unisys for CSC Account Use
Troubleshoot Windows PC remotely	Remote Control Viewer part of SCCM	Used by by Unisys staff to troubleshoot user issues remotely
Mobile Device Management	City Access to Dept. of Justice Provided AIRWATCH software	Mobile Device Management tool suite for administration of mobile devices.

SCHEDULE 3D

ENTERPRISE COMPUTE SERVICES SOW

TO MASTER SERVICE AGREEMENT

BY AND BETWEEN

CITY OF SANTA CLARA

AND

SERVICE PROVIDER

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1. Overview

This Statement of Work for Enterprise Compute Services ("SOW") has been entered into pursuant to the Master Services Agreement (the "MSA") between Customer and Service Provider.

In addition to the Enterprise Compute Services, Service Provider will perform the cross-functional functions described in Schedule 3A to the Agreement.

Service Provider will be responsible for providing the tools required to deliver the Enterprise Compute Services set forth in this Schedule, unless otherwise agreed to by Customer.

Capitalized terms used in this SOW have the meanings set forth in Exhibit 1.

2. Service Description and Major Functions

Service Provider's Enterprise Compute Services include operational management and project support for the City data center and enterprise network, end to end management of the City's enterprise and department business application infrastructure, enterprise solution services and support services for third party hosted cloud-based services as set forth in Section 2 ("Services"). Enterprise Compute Services include:

- Computing Services
    - On Premise Application Infrastructure Management
    - Third Party Cloud Services Support
    - Enterprise Computing Operations
    - Storage and Data Management
    - Physical Database Support
    - Web Support
    - Application Support
    - IT Service Continuity and Disaster Recovery
- Enterprise Solution Services
    - Remote Access
    - Messaging
    - Collaboration
    - Mobility
- Network Services
    - Design and Engineering
    - Provisioning
    - Transport
    - Operations and Administration
    - Monitoring and Reporting
    - Documentation
    - Security Planning and Operations
    - Firewall Management

- Security Intrusion Prevention and Detection

Without limiting Service Provider's obligations under the Agreement, including this Schedule 3D and the other Schedules referenced in the Agreement, Service Provider's solution and technical approaches for this Service Area shall conform with the Service Provider's solution and technical approaches as provided in the following documents, as such documents may be amended during the term of this Agreement by the Parties in writing, and which are hereby incorporated into this Schedule 3D by reference. Nothing in the following documents shall limit Service Provider's obligations under the Agreement. If the provisions of this Schedule 3D or any other Schedule (including Appendixes) conflict with one or more of the following documents, the provisions of this Schedule 3D or such other Schedule (including Appendixes) shall control.

- Final Service Area Solutions.docx

3. Supported Systems and Quantities

The baseline quantities supported by Enterprise Compute Services are listed in Schedule 5 - Fees.

4. Responsibility Matrix

Exhibit 2 sets forth the Responsibility Matrix for services relevant to this SOW.

5. Support Requirements

- Remote Service will be provided 24x7
- Non-Incident / event activities will be performed during Customer's normal business hours. The normal Customer business hours are 7:00 am – 7:00 pm (Pacific Time), Monday through Friday.
- Onsite support will be provided during normal business hours
- Onsite after hours support will be provided for Priority 1 Incidents (e.g. impact to public safety) or as otherwise required to meet Service Levels (e.g., during pre-defined maintenance windows)

6. Service Levels

The Service Levels applicable for Enterprise Compute Services is provided in Schedule 4. Customer may change or add Service Levels through the Change Control Procedures.

7. Reports

Service Provider shall provide reports relating to the Enterprise Compute Services, as set forth in Schedule 7 – Reports.

8. Critical Deliverables

As of the Effective Date of the Agreement, the Critical Deliverables associated with Enterprise Compute Services are provided in Schedule 3A Cross – Functional Services, Critical Deliverables section.

9. Changes to MSA

This SOW does not change any terms in the MSA and its Schedules.

EXHIBIT 1 – DEFINITIONS

See Schedule 1 – Definitions for definitions applicable to this Schedule.

EXHIBIT 2 – RESPONSIBILITY MATRIX

The Responsibility Matrix below shows which party is responsible for the listed task. The scope of the Enterprise Compute Services includes all operational and project-based work to provide the Enterprise Compute Services. Service Provider's responsibilities shall include cross-Service Tower coordination of the Enterprise Computing Services. It is not the intent of the Responsibility Matrix to absolutely identify or define every process, activity or task to be performed by Service Provider as a managed services function.

The responsibility matrix for Enterprise Compute Services is set out below.

Computing Services

On Premise Application Infrastructure Management

The following table applies to the Customer's on premise data center and on premise hosted applications :

Function/Responsibility	Service Provider	Customer
Server Operations Administration		
1. Control and reconfigure servers, operating systems, processing complexes, peripheral sub-systems and applications	X	
2. Provide proactive real-time and regularly scheduled console monitoring and event correlation of data center core infrastructure and application systems infrastructure environments (e.g., hardware, server batch schedules, interfaces, database table spaces, LAN/VLANs) and application systems, respond to console messages and alerts, correlate alerts and take corrective actions as required (e.g., Level 1.5 support such as script execution). Key data center and systems events will be interfaced to, ingested by, and processed by the enterprise SIEM system	X	
3. Develop and maintain standard automated scripts to perform monitoring of Data Center core and application systems infrastructure	X	
4. Configure and monitor in-scope physical processing partitions, input/output sub-systems, channels and peripheral devices	X	
5. Ensure that system devices are maintained in accordance with the build documentation or manufacturer's instructions	X	
6. Monitor power, air conditioning and other environmental factors	X	
7. Administer system processes using physical intervention and according to agreed policies and procedures	X	
8. Provide primary detection and diagnosis of server environment failure, such as environmental failure	X	
9. Assign or reassign server resources to maintain load balancing	X	
10. Synchronize clocks on system devices with the central time server	X	
11. Recommend maintenance for the enterprise computing configuration based on good practice and manufacturer instructions	X	
12. Proactively evaluate servers and identify and recommend strategies and efficiency opportunities (e.g., consolidation, reduction and virtualization)	X	
13. Automate operations that would otherwise require human intervention and that occur automatically based on schedules, events, threshold,	X	

Function/Responsibility	Service Provider	Customer
or status changes. These are routine systems activities as distinct from job or workload scheduling		
14. Use single or aggregated consoles (single point of operation) to provide access for operations to receive event streams or routine console messages. Provide for logging, resumption or commencement of jobs, error indication and other acts that require operator intervention or action. Provide console automation	X	
15. Configure and monitor in-scope physical processing partitions, input/output sub-systems, channels and peripheral devices. Monitor power, air conditioning and other environmental factors. Check that system devices are maintained in accordance with the build documentation or manufacturer's instructions	X	
16. Administer system processes using physical intervention and according to agreed policies and procedures	X	
17. Provide primary detection and diagnosis of server environment failure, such as environmental failure	X	
18. Assign or reassign server resources to maintain load balancing	X	
19. Synchronize clocks on system devices with the central time Server	X	
20. Recommend maintenance for the enterprise computing configuration based on good practice and manufacturer instructions	X	
21. Automate operations that would otherwise require human intervention and that occur automatically based on schedules, events, threshold, or status changes. These are routine systems activities as distinct from job or workload scheduling	X	
Operating Environment Support		
22. Provide standard procedural deployment of operating system and firmware versions	X	
23. Provide an ongoing managed server state in accordance with agreed maintenance schedules and Service Levels. Such as monitoring for, and notification of, updates and revisions of the operating environment for review, acceptance by the Customer and the raising of appropriate Change controls	X	
24. Install and maintain Customer-approved, data center core and application system infrastructure, middleware and database technology solutions and services (e.g., virtual LAN, LAN switching schema, server virtualization technology, mainframe system, private cloud and public cloud solutions) based on current and emerging Customer business and IT requirements and security policies and standards	X	
25. Provide and install firmware upgrades to in-scope information communication technology equipment	X	
26. Control and maintain the base components of the operating system and system Software that manages the hardware and Software resources of a computer. This comprises remote systems access and / or take-over (remote control). This also comprises the regular check schedules	X	
27. Provide analysis and Level 2 support to either address Incidents or support requests. Where required, to identify the appropriate Level 3 support teams for escalation and re-assignment	X	

Function/Responsibility	Service Provider	Customer
28. Provide Level 3 support on In-scope equipment such as developing and deploying support resolutions or fixes. Where appropriate, identify the external service provider(s) and co-ordinate a solution	X	
29. Develop, deploy and maintain appropriate operating level scripts to automate the delivery of operating system activities	X	
30. Manage and maintain roadmap for data center environment renewals (e.g., hardware, Software and tools)	X	
System Administration		
31. Perform system administration activities (e.g., manage Active Directory, perform access control on infrastructure components, manage files and disk space, manage transaction definitions, system maintenance and patching)	X	
32. Perform system administration Changes necessary to support Services and application systems processing needs in accordance with change management requirements	X	
33. Perform Active Directory design based on Customer requirements (e.g., group design)	X	
34. Approve Active Directory design		X
35. Implement, configure, manage and administer Active Directory (e.g., groups and domains, replication schedules, database corruption, inter-regional issues, DNS registration, LDAP, and IP address ranges)	X	
36. Document and support Customer internal and external system interface/EDI/ FTP requirements and policies, including transport delivery locations, providers, format and schedule requirements	X	
37. Develop and maintain a repository of all Customer interface/EDI/FTP and distribution entities	X	
38. Install, manage and maintain infrastructure required to securely deliver system interface/EDI/FTP transactions	X	
39. Conduct change and testing processes and services associated with interface/EDI/FTP transactions	X	
40. Execute interface/EDI/FTP production and test distribution according to production schedules	X	
41. Monitor all interface, EDI and FTP transactions to ensure proper completion	X	
42. Resolve and rerun transactions as required and escalate non-resolved interface/EDI/FTP transactions as required	X	
43. Interface directly with Customer and external interface/EDI/FTP distribution entities according to policies and procedures	X	
Facilities		
44. Provide the building services within the in-scope facilities		X
45. Maintain power, air conditioning and other environmental factors in accordance with data center classification policies		X
46. Develop and maintain a preventative maintenance schedule and coordinate maintenance activities with third party providers (e.g., HVAC, fire suppression)	X	
47. Manage Third Party relationships for the in scope facilities (e.g., power, air conditioning and other environmental factors) and escalate to the City and Third Party providers as required to address and	X	

Function/Responsibility	Service Provider	Customer
Resolve Incidents		
48. Manage the physical security of the in-scope facilities		X
49. Provide an environment to house servers and information communication technology equipment in facilities other than data centers		X
50. Provide the housing facilities within the non-data center site locations		X
51. Maintain power, air conditioning and other environmental factors as appropriate relative to the quality of the facility		X
52. Monitor power, air conditioning and other environmental factors as appropriate	X	
53. Manage the physical security of the non-data center facilities		X
54. Maintain and manage the audit logs and access records for non-data center facilities		X
55. Report on the audit logs and access records within the boundaries of the technology provided	X	
56. Provide a secure workspace for the non-data center operations staff		X

Third Party Cloud Services Support

The following table applies to third party cloud-based services (e.g., infrastructure, storage, backup and network):

Function/Responsibility	Service Provider	Customer
Cloud Services Support		
1. Manage Customer's current and future cloud environments (e.g., compute, databases, storage, backup, network, management tools and processes)	X	
2. Manage and deliver Customer's cloud computing environments and solutions based on Customer's objectives and strategy	X	
3. Perform cloud infrastructure orchestration services (e.g., server and storage provisioning, API and web portal/catalog access, service management, backup, orchestration, and resource management functions) with Third Parties	X	
4. Coordinate with Third Party cloud vendors as required to maintain Services, Resolve Incidents and achieve Service Levels	X	
5. Provide monitoring (e.g., application performance and availability) of Customer's application environment including ingesting and processing cloud-based system events in the enterprise SIEM system.	X	
6. Provide consolidated reporting of cloud and non cloud-based services, and include as part of Service Provider's ongoing operational reporting	X	

Enterprise Computing Operations

	Function/Responsibility	Service Provider	Customer
	Directory, Name and Address Management		
1.	Manage and provide for the availability of directory, name and address systems in accordance with business service requirements	X	
2.	Perform activities to provide for the availability of domain name system (DNS) services	X	
3.	Perform activities to provide for the availability of dynamic host configuration protocol (DHCP) systems	X	
4.	Perform necessary activities to provide availability of directory systems	X	
	Production Schedule Management		
5.	Add, modify or remove automated, scheduled system activities such as the identification of their appropriate precursors and dependencies. Undertake these changes at the appropriate time, monitor for the appropriate completion and carry out appropriate remedial tasks if these fail inside the relevant pre-defined time constraints. Manage and automate jobs, such as workloads, batches, transaction services, continuous processes, or operating and application services	X	
6.	Establish job or workload characteristics of job activity	X	
7.	Schedule jobs and provide scheduling workarounds or advice as to alternative timing	X	
8.	Execute and manage on-line and batch processing in accordance with production schedules	X	
9.	Monitor on-line and batch processing and escalate alarms to the Service Desk	X	
10.	Provide reporting on threshold breaches in accordance with Service Levels. Make recommendations to modify threshold limits or operating baselines in the cases of under or over reporting	X	
	Utilization Management		
11.	Monitor consumable resources against planned allocation and report in accordance with the Service Levels. Establish a baseline for infrastructure usage	X	
12.	Analyze and review the monitoring outputs and review the configuration, processor performance, memory usage, and I/O utilization of in-scope environments to identify potential processing bottlenecks and imbalances in order to make recommendations as to potential Changes within the environment	X	
13.	Collect data for total resource utilization and data for the load that each service places on each particular resource (over the total infrastructure, server, network, local server and client or workstation)	X	
14.	Provide enterprise wide computing reporting on resource consumption and utilization activities in accordance with agreed requirements and Service Levels	X	
	Performance Management		
15.	Establish thresholds, baselines or profiles of the normal operating levels against which the system can be periodically audited or monitored. Establish the normal boundaries for the operating environment or specific applications within the environment	X	

Function/Responsibility	Service Provider	Customer
16. Provide business driven thresholds and specification		X
17. Monitor all on premise and cloud-based systems and specific applications 24x7x365 for transaction throughput rates, Response times and potential performance issues including providing alerts when service-affecting performance issues arise. With respect to cloud-based systems, this relates to information available for standard integration into cloud management platforms	X	
18. Monitor the enterprise computing environmental factors to identify potential performance Problems based on configuration or environmental factors within the boundaries of technology provided	X	
19. Monitor the application environment to identify potential performance Problems affecting the end-to-end performance and the End-User experience due to internal application locks or contention. Assumes applications have monitor hook points or operational inspection points	X	
20. Proactively monitor end-to-end application and system components to provide baseline End-User response measures, report deviations from normal, and provide Resolution and enhancement activity to maintain and improve end-to-end Response times	X	
21. Analyze the monitoring outputs and review the configuration, processor performance, memory usage, and I/O utilization of in-scope equipment	X	
22. Report on the monitoring outputs identifying potential processing bottlenecks and imbalances and to make recommendations as to potential Changes within the environment	X	
23. Review performance reporting and conduct appropriate tuning actions to address any identified performance deficiencies	X	
Availability Management		
24. Create and manage an Availability management plan to establish an integrated process for identifying, documenting, monitoring, evaluating and controlling the Customer's technology, systems or information technology Services	X	
25. Have the entitlement to own the end-to-end process across all environments. Coordinate and control the participation in the process for all service providers, such as the provision, support and maintenance of the Availability Plan for components of this environment	X	
26. Provide input to the Availability Plan in relation to CIs in this environment.	X	
27. Analyze and determine the infrastructure required to achieve efficient use of resources to deliver Service requirements	X	
28. Monitor and measure Service Levels and key performance indicators for Availability in accordance with the availability management plan. Report both status and exceptions	X	
29. Provide monitoring and trend analysis of the Availability, reliability and maintainability of technology, systems or information technology Services to identify areas for improvement	X	
30. Design and manage plans to improve availability	X	
31. Provide strategy reviews using trend analysis to review service Availability against planned future requirements	X	

Function/Responsibility	Service Provider	Customer
32. Plan for new and enhanced Services in accordance with forecasting activities	X	
33. Prioritize and approve new and enhanced Services through the Change Management process		X
34. Identify threats and vulnerabilities to the ongoing Availability of the Service in accordance with diagnosed trends and future proposed developments	X	

Storage and Data Management

Function/Responsibility	Service Provider	Customer
Storage and Data Management (General)		
1. Gather storage requirements (e.g., performance, level of data segregation, backup, restore, archival, data retention, reliability, encryption, security, scheduling, access control) and storage strategy (e.g., on prem or cloud)	X	
2. Recommend data storage management Services solutions (e.g., shared/dedicated storage, tiered storage, platforms, supporting infrastructure, encryption, security, scheduling, access control) and procedures to meet Customer's on prem or cloud requirements in accordance with storage strategy	X	
3. Monitor storage levels against capacity and notify Customer when storage capacity reaches defined thresholds	X	
4. Manage storage consumption for and within applications and/or systems so that the appropriate users or applications have the correct quotas and that usage falls within the guidelines for capacity and usage as defined in the Procedures Manual	X	
5. Recommend additional storage capacity based on capacity and projected growth	X	
6. Review and approve Service Provider recommendations for additional storage capacity		X
7. Provide monthly monitoring and analysis of stored data in terms of size, location, and type for exceptions in accordance with agreed policies as defined in the Procedures Manual	X	
Storage and Data Management (cloud)		
8. Manage Third Party provider's cloud-based storage solution for Customer's cloud storage	X	
9. Manage implementation of Customer approved cloud storage capacity with cloud storage provider	X	
10. Remove (archive or delete) expired data in accordance with the archiving, retention and deletion policies defined in the Procedures Manual.	X	
Storage and Data Management (on premise)		
11. Manage In-Scope equipment in accordance with the storage policy defined in the Procedures Manual	X	
12. Implement Customer approved changes to storage capacity	X	
13. Manage disk and storage arrays in accordance with policy defined in the Procedures Manual	X	

Function/Responsibility	Service Provider	Customer
14. Provide for the allocation and initialization of disk and storage arrays in terms of usage and location	X	
15. Modify and upgrade the allocation of disk arrays and disk packs based on business requirements as requested by the Customer	X	
16. Provide monthly monitoring and analysis of disk and storage arrays for exceptions in accordance with agreed policies	X	
17. Provide for the initialization, recovery and resizing of file systems based on utilization and/or projected growth	X	
Data Transfer		
18. Maintain processes for file transfer to and from required systems, verifying successful transfer and data verification	X	
Back-Up and Restore Operations (on premise)		
19. Execute and monitor the backup, recovery and archive activity within the Customer environment in accordance with the storage policy defined in the Procedures Manual	X	
20. Provide backup schedules and effectiveness reporting, especially in distributed environments	X	
21. Perform media backup on a centralized and/or remote basis	X	
22. Restore or recover lost or damaged data from backup media upon Customer request in accordance with the media and data catalog	X	
23. Testing of media backups to determine media readability as defined in the Procedures Manual	X	
24. Pre and post testing of backup subsystems such as reporting on success and failure rates	X	
25. Testing of media restores to determine media readability and data validity as requested	X	
26. Prior to and after post testing of restores such as reporting on success and failure rates	X	
Media Management and Library Management		
27. Maintain and schedule automated media devices, such as auto-identification, tagging and security of physical media and associated data	X	
28. Maintain the schedule of media packaging and off-site dispatch	X	
29. Maintain a usage and availability register so that adequate physical media is available to meet actual and forecasted usage. Perform escalation in accordance with agreed policies when thresholds are exceeded		
30. Provide secure storage of Customer media at the data center, off-site or Customer site location, maintain records of media movement and provide periodic reports or audits of media store	X	
31. Prior to and after post testing of restores such as reporting on success and failure rates	X	

Physical Database Support

Function/Responsibility	Service Provider	Customer
1. Configure and maintain the Customer's database servers	X	
2. Install, configure and maintain database software to support the	X	

Function/Responsibility	Service Provider	Customer
normal business operation of Customer applications and other software components associated with databases		
3. Perform Customer database requests (e.g., database copies/cloning, data import/export requests, Service Requests)	X	
4. Perform database administrative tasks (e.g., database link creation and maintenance, tablespace reorganizations, database space monitoring and management, security/permissions, user ID administration, performance/threshold monitoring, tuning, database cleanups/archiving	X	
5. Analyze, identify and troubleshoot issues in databases (e.g., corruption)	X	
6. Execute all database system level Changes (e.g., initialization parameters)		
7. Execute all schema Changes for all instances and allow for rollback of data	X	
8. Implement database data definition requirements for applications (e.g., IMAC for tables, triggers, attributes, stored procedures)	X	
9. Maintain documentation for all database instance parameters and system settings	X	
10. Proactively identify and remediate bottlenecks (e.g., locking conflicts, latch contention, rollback requirements) for all database instances	X	
11. Resolve locking conflicts, latch contention, rollback requirements, problematic SQL, processes, etc., for all database instances	X	
12. Provide technical assistance and subject matter expertise to Customer and Third Party Provider applications groups	X	
13. Proactively monitor databases and report Incidents to the Service Desk	X	

Web Support

Function/Responsibility	Service Provider	Customer
1. Develop architecture, standards and requirements for web-based application systems and web server infrastructure	X	
2. Approve architecture and design of web-based application systems and web server infrastructure		X
3. Install, configure, support and maintain web-based application systems and web server infrastructure components (e.g., DMZ infrastructure, hardened servers, middleware, SSL certificates)	X	
4. Manage web proxy services, including user support, administration, and management	X	
5. Manage web content and relationships with Third Party providers of web content/application	X	
6. Coordinate with Customer and Third Party providers to perform Incident and Problem identification and Resolution activities	X	
7. Monitor and report on Customer's web site and web server activity (e.g., inbound and outbound traffic, bandwidth usage, security vulnerability, cyber-attacks, number of web site hits, Availability and response time)	X	

Application Support

Function/Responsibility	Service Provider	Customer
1. Build application landscapes and transition Customer applications as required, including working with Third Parties as relevant	X	
2. Support applications test-to-production migration activities	X	
3. Perform application tuning and reporting and make recommendations to improve performance as requested	X	
4. Migrate, configure and maintain application and operating Software for Customer's production version(s) as of the Service Commencement Date and two previous sequential versions	X	
5. Migrate, configure and maintain application software version modifications, release modifications and patch modifications	X	
6. Perform software fault isolation, troubleshooting and failure recovery	X	
7. Interface with Customer and Third Party provider application development and support groups as required during application development and maintenance activities	X	
8. Coordinate with Customer and Third Party providers to ascertain ongoing infrastructure support requirements and specifications for applications	X	
9. Perform application release modifications and patch modifications as required in accordance with the applicable release calendar	X	
10. Apply application hot pack packages and patches as required	X	

IT Service Continuity and Disaster Recovery

Function/Responsibility	Service Provider	Customer
1. Establish and execute processes to ensure the Disaster Recovery Plan is kept up-to-date in order to reflect Changes in Customer environment	X	
2. Participate in Disaster Recovery Plan testing		X
3. Lead semi-annual (at minimum) disaster recovery status review meeting to include review of disaster recovery strategy, technical enhancements to the Disaster Recovery Plan and Disaster Recovery Plan changes based on changes in the production environment, including updates to the Business Continuity Plan based on dependencies on IT Disaster Recovery capabilities	X	
4. Participate in semi-annual disaster recovery status review meeting		X
5. Perform scheduled Disaster Recovery Plan tests in accordance with Customer's requirements, and notify Customer of any deficiencies in the Disaster Recovery Plan and infrastructure environments that prevent the successful recovery of application systems	X	
6. Coordinate involvement of all actual Disaster recovery and Disaster recovery test participants (e.g., Customer, Third Party Providers, End Users)	X	
7. Track and report Disaster Recovery Plan test results to Customer	X	

Function/Responsibility	Service Provider	Customer
within 30 days following test completion		
8. Approve Disaster Recovery Plan test results		X
9. Develop action plan to address Disaster recovery test results	X	
10. Approve action plan to address Disaster recovery test results		X
11. Implement action plan and provide ongoing status until completion	X	
12. Advise and recommend on potential Disaster situations, based on established protocols	X	
13. Declare Disaster		X
14. Activate the Disaster Recovery Plan in the event of a Disaster and notify Customer and Third Party providers in accordance with the Disaster Recovery Plan	X	
15. Coordinate with Customer and Third Party providers during a Disaster in accordance with the applicable Disaster Recovery Plan	X	
16. Implement the Disaster Recovery Plan and conduct activities required to recover the Services in accordance with the Disaster Recovery Plan	X	

Enterprise Solution Services

Function/Responsibility	Service Provider	Customer
General		
1. Meet with Customer departments to advise them on how they can better utilize available enterprise solution to improve their business outcomes	X	
Remote Access		
2. Provide Customer requirements and Customer policies related to remote access		X
3. Install, manage, maintain and support remote access hardware and Software	X	
4. Test connectivity and accessibility to applications made available via remote access	X	
5. Provide technical assistance and subject matter expertise as required by other IT Service Towers and Third Party providers for remote access products and solutions	X	
6. Perform system or component configuration changes necessary to support remote access	X	
Messaging		
7. Maintain Customer current (on premise) and future (e.g., Microsoft 365) messaging solution and procedures	X	
8. Manage, configure, maintain and support Customer's on premise messaging infrastructure and application environment	X	
9. Provision licenses for current and future messaging solutions		X
10. Define mailbox provisioning policies (e.g., retention, size, archival)		X

Function/Responsibility	Service Provider	Customer
11. Provide email system administration services (e.g., mailbox administration, add/move/delete, mailbox permissions, creation of distribution lists and owners), including wireless device components for current (on premise) and future messaging solutions	X	
12. Provide public folder administration services (e.g., creation/deletion of folders, folder owner permissions and ownership assignment, and folder replication management) for current state (i.e., on premise) and future environments	X	
13. Install, test, provide technical support, database administration and security administration for messaging applications for current state (i.e., on premise) environments	X	
14. Provide messaging technical assistance and subject matter expertise support as required by Customer and Third Party providers	X	
15. Provide messaging backup and recovery and archiving to meet Customer requirements (e.g., business, regulatory, compliance requirements) for current state (i.e., on premise) environments	X	
Collaboration		
16. Perform site administration function for Customer collaboration sites (e.g., site permissions, site creation and configuration)	X	
17. Provide Service Provider with requirements for initial site setup		X
18. Assist Customer with initial setup of collaboration sites	X	
19. Provide functional and “how to” support to Customer	X	
20. Provide support in troubleshooting site problems	X	
21. Provide user training to Customer users (e.g., features, functionality, customization)	X	
Mobility		
22. Manage solution to provide mobile device management service for Customer	X	
23. Gather End-User requirements for mobility devices (e.g., applications, functionality, access)	X	
24. Support and use Third Party provider’s SaaS-based tool (e.g., AirWatch Cloud) to manage mobility devices (e.g., device adds, new user account setup, network connectivity, user account modifications, security settings, operating system and application distribution, configuration settings, patching, data distribution, device removal)	X	
25. Manage and support Customer mobile devices based on End-User requirements and Customer policies	X	
26. Configure user authentication and access controls to enforce standard device security, authentication and encryption	X	

Network Services

Network Design and Engineering Services

Function/Responsibility	Service Provider	Customer
1. Prepare and provide network design, engineering, security plans and schedules (e.g., service design package) to support new and enhanced applications, architectures and standards based on established procedures as needed or requested by Customer	X	
2. Approve network design, engineering, security plans and schedules		X
3. Provide recommendations for optimizing network design	X	
4. Approve recommendations for optimizing network design		X
5. Coordinate with customer and third parties as required to meet service requirements and Service Levels	X	
6. Implement Customer-approved changes to the network environment in accordance with the change management process	X	
7. Develop schedule for implementation of changes to the network environment for Customer's review and approval	X	
8. Approve schedule for implementation of Changes to the network environment		X
9. Coordinate design and engineering efforts with Customer and Third Parties as required	X	
10. Provide technical advice to all IT groups and Service Towers to optimize utilization of data and applications over the network (e.g., Customer IT architects, Third Party application development and maintenance service provider)	X	

Network Provisioning Services

Function/Responsibility	Service Provider	Customer
1. Specify network provisioning physical requirements (e.g., power, floor space)	X	
2. Coordinate ordering, procurement and inventory management of network components	X	
3. Order and expedite delivery of network equipment and services	X	
4. Coordinate and oversee third-party installation activities (e.g., in Data Center router installation)	X	
5. Install equipment and establish connectivity as required in accordance the Customer policies relating to compliance standards	X	
6. Document router configuration files and IP addressing schemas and standards	X	
7. Ensure that all new network components provisioned are included in all Cross Functional Services-related documentation (e.g., asset management and configuration management)	X	
8. Upgrade, remove, and decommission network components, as	X	

Function/Responsibility	Service Provider	Customer
required, from the data center as required, per agreed schedules and in accordance with Customer policies		

Network Transport Services

Function/Responsibility	Service Provider	Customer
1. Schedule, coordinate, and perform support activities for Network Transport Services	X	
2. Procure Network Transport Services to the Customer as requested	X	
3. Coordinate and manage the installation, testing, and support activities of transport vendors as a Project.	X	
4. Perform yearly reviews with the transport vendors to ensure contractual obligations are met	X	
5. Check that transport vendors provide quotes and execute orders in accordance with each transport vendor's respective service level agreement	X	
6. Review and report on the performance of Network Transport Services to cover load and latency metrics	X	
7. Analyze performance reports and recommend actions to the Customer as necessary	X	
8. Conduct review of telecommunication invoices: • Identify invoice variances • Escalate deviation to the Customer governance team for action • Assign/categorize invoices to appropriate business unit • Conduct annual contract and invoice review with transport vendors and provide recommendations to the Customer	X	

Network Operations and Administration Services

Function/Responsibility	Service Provider	Customer
1. Perform day-to-day network operations and administration activities	X	
2. Manage carriers and other agreed Third Parties to provide network services	X	
3. Develop, manage and maintain inventory of network traffic (e.g., types, sources, services)	X	
4. Manage network assets in accordance with Customer policies (including security oversight and Change Management processes)	X	
5. Recommend, and implement and manage Customer-approved, QoS and CoS for QoS/CoS sensitive applications, including IP/VOIP-based telephony systems	X	
6. Administer and configure traffic profiles that allow traffic prioritization, such as profiles to segment the traffic logically, to load balance over different networks with the objective of improving responsiveness and	X	

Function/Responsibility	Service Provider	Customer
offloading functionality from servers on the network.		
7. Recommend IP addressing, directory and configuration information and requirements	X	
8. Approve IP addressing, directory and configuration information and requirements		X
9. Develop and maintain IP addressing schemes, router configurations and routing tables that meet Customer's requirements	X	
10. Manage and maintain DNS/DHCP services	X	
11. Provide requirements (e.g., security, performance) for physical and logical network traffic segmentation		X
12. Recommend approaches, technologies and network management techniques for physical and logical network traffic segmentation	X	
13. Approve approaches, technologies and network management techniques for physical and logical network traffic segmentation		X
14. Implement, manage and maintain physical and logical network traffic segmentation to meet Customer's requirements (e.g., security, performance) and Service Levels	X	
15. Manage technical Third Party relationships for facility cable management services (e.g., physical wiring between servers and wiring closet at the data center)	X	
16. Manage and maintain current inventory of cable plant, including documentation	X	
17. Manage and maintain current inventory of redundant dark fiber connecting Customer Service Locations	X	
18. Manage and provide proactive and reactive maintenance on network components	X	
19. Maintain and provide security information in an agreed upon format (e.g., access, general logs, application logs) in accordance with Customer's policies relating to security	X	
20. Coordinate network administration activities through the change management processes	X	
21. Support provisioning and de-provisioning account activities and maintain associated history logs as required	X	
22. Support activities related to Customer-planned or Third Party planned and unplanned outages (e.g., post-power outage startup activities, Customer preparedness emergency exercises or Incidents, recovery)	X	

Network Monitoring and Reporting Services

Function/Responsibility	Service Provider	Customer
1. Manage current or provide and manage new automated tools for monitoring network devices and traffic from a Service Provider-provided Network Operations Center (NOC)	X	
2. Implement measures and provide proactive analysis of network data and reports to limit network outages and optimize network	X	

Function/Responsibility	Service Provider	Customer
performance		
3. Proactively monitor current network utilization and provide information to Customer for use in determining future capacity requirements, events and network monitoring measurements, which shall be integrated into enterprise SIEM system	X	
4. Perform Incident determination, alert identification and correlation, and Resolution for in-scope network environments on a 24x7x365 basis	X	
5. Monitor Customer-provided circuit monitoring feeds for purposes of event correlation, which will be performed by enterprise SIEM system	X	
6. Perform data center LAN analysis diagnostics and troubleshooting	X	
7. Manage network performance and Availability issues resulting from a fault or impairment in network components	X	
8. Provide ad hoc network reports as requested (e.g., user traffic)	X	

Network Documentation Services

Function/Responsibility	Service Provider	Customer
1. Provide network documentation standards and requirements		X
2. Recommend Service Provider's standard network documentation types and content for Customer's review and approval	X	
3. Approve network documentation types and content		X
4. Develop and maintain network documentation that meets Customer requirements	X	

Network Security Planning and Operations

Function/Responsibility	Service Provider	Customer
General		
1. Implement physical and logical network security plans that comply with Customer policies; develop and provide documentation demonstrating adherence to the Customer policies	X	
2. Implement and maintain network security services and technical solutions that protect data logically and physically during use, at rest in storage and during wired and wireless transmission, against unauthorized or accidental access, modification or disclosure	X	
3. Implement the established action plan (e.g., quarantine of malicious code or network segment) and escalation procedures to isolate the impact of security events (e.g., malicious code outbreak)	X	
4. Notify Service Provider's security monitoring centers of scheduled Changes to the environment to ensure that Customer does not receive security alerts when planned Changes are made		X
Security Policy and Controls		

Function/Responsibility	Service Provider	Customer
5. Provide Customer security strategy, policies and requirements		X
6. Recommend best practice security services and procedures	X	
7. Review Service Provider-recommended best practice security services and procedures, provide input or additional procedures as required, and approve final agreed security services and procedures		X
8. Provide a Customer point of contact to work with Service Provider for security requirements related to the network services		X
9. Coordinate with Customer in responding to and Resolving security Incidents	X	
10. Review and approve all security plans, security remediation plans, programs, and security infrastructure		X
Network Environment Access Control		
11. Provide list of Service Provider Personnel performing network-related Services that require network environment access for Customer's review and approval	X	
12. Approve list of Service Provider Personnel performing network-related Services that require network environment access		X
13. Adhere to established network environment access control policies and procedures	X	
System Administrative Privileges		
14. Establish access profiles and policies for adding, changing, enabling/disabling and deleting log-on access for Customer and third parties (e.g., network access control tools)		X
15. Notify Customer of network breaches	X	
16. Identify and remediate systematic attacks (e.g., attempts to logon) and report to Customer	X	
Security Status Checking and Validation		
17. Provide a single point of contact for a network security assessment audit to define audit controls and coordinate audit activities	X	
18. Provide support for audit activities (e.g., e-discovery, legal hold, and forensic audits) as required by Customer, such as data collection, data preservation, audit software installation and report generation	X	
19. Develop, and implement Customer-approved, plans to remediate audit findings that do not comply with the established Customer policies relating to security, and report on progress of the implementation	X	X
20. Approve plans to remediate audit findings		X
21. Support audit activities	X	
22. Maintain all documentation required for network security assessments, audits and internal control and control testing	X	
Content Filtering		
23. Filter outbound URLs to enforce compliance with Customer policies	X	
24. Filter both inbound and outbound multiple web protocols, including deep inspection of encrypted traffic	X	
25. Filter inbound URLs, block access to sites based on security requirements	X	
26. Provide seamless user/IP integration for authentication, tracking,	X	

Function/Responsibility	Service Provider	Customer
reporting		
27. Manage user/groups URL filters and reporting as required	X	

Firewall Management, DMZ and Internet Infrastructure Services

Function/Responsibility	Service Provider	Customer
1. Provide firewall management, DMZ and Internet infrastructure requirements and applicable Customer policies		X
2. Perform firewall management, DMZ and Internet infrastructure engineering and related security design, including methods for secure network access and authentication in accordance with Customer policies	X	
3. Approve firewall management, DMZ and Internet infrastructure engineering and related security design		X
4. Perform Firewall Management, DMZ and Internet Infrastructure Services in accordance with architecture and security designs and Customer policies	X	
5. Implement Customer-defined access requirements and standards via firewall rule sets	X	
6. Assist with the definition of intranet/internet boundaries within Customer	X	
7. Maintain intranet/internet boundaries within Customer	X	
8. Define Third Party connectivity requirements and policies		X
9. Develop the Third Party connectivity strategy in accordance with Customer policies and requirements, for Customer's review and approval	X	
10. Review and approve Third Party connectivity strategy		X
11. Implement and support Customer-approved Third Party connectivity strategy	X	
12. Support and manage content compression devices	X	
13. Monitor performance levels of the firewall/DMZ/Internet infrastructure through setting of thresholds, provide reporting, and take proactive and/or reactive steps to Resolve any performance issues, ensuring that performance level values are integrated into enterprise SIEM system	X	

Security Intrusion Prevention and Detection Services

Function/Responsibility	Service Provider	Customer
1. Install, configure, and manage intrusion detection and prevention sensors at Customer-specified network entry points and all Third Party connection and wireless network entry points	X	
2. Recommend, and implement Customer-approved, risk ratings and	X	

Function/Responsibility	Service Provider	Customer
remediation plans and actions for security events in accordance with Customer policies		
3. Approve risk ratings and remediation plans and actions for security events		X
4. Provide alerts of malicious activity and intrusions according to risk rating of the signatures, in accordance with Customer-approved policies and procedures, ensuring alerts are also integrated into enterprise SIEM system	X	
5. Remediate malicious activity and intrusions as defined by the Incident management processes, as required to meet Customer policies and requirements	X	

EXHIBIT 3 – ENTERPRISE COMPUTE HARDWARE, SOFTWARE, MIDDLEWARE, DATABASES, AND TOOLS

Service Provider will support all hardware, software, and physical aspects of databases and middleware in the data center environment, including such hardware, software, databases and middleware existing as of the applicable service commencement date and new hardware, software, databases and middleware added during the term (the "Enterprise Compute hardware," "Enterprise Compute software" "databases," and "middleware," respectively). Enterprise Compute hardware, Enterprise Compute software, databases and middleware includes the hardware, software, databases, and middleware set forth in this Schedule 3D, Exhibit 3, attached hereto.

The tools that Service Provider will use in the delivery of the Enterprise Compute Services include those set forth in this Schedule 3D, Exhibit 3, attached hereto.

SCHEDULE 3E

APPLICATION MANAGEMENT, CONFIGURATION AND MAINTENANCE SERVICES SOW

TO MASTER SERVICE AGREEMENT

BY AND BETWEEN

CITY OF SANTA CLARA

AND

SERVICE PROVIDER

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1. Overview

This Application Management, Configuration and Maintenance Services ("Application Services") Statement of Work ("SOW") has been entered into pursuant to the Master Services Agreement (the "MSA") between Customer and Service Provider.

In addition to the Application Services, Service Provider will perform the cross-functional functions described in Schedule 3A to the Agreement.

Service Provider will be responsible for providing the tools required to deliver the Application Services set forth in this Schedule, unless otherwise agreed to by Customer.

Capitalized terms used in this SOW have the meanings set forth in Exhibit 1.

2. Service Description and Major Functions

Service Provider shall provide end to end application lifecycle services for Customer's current evolving application portfolio, including those lifecycle services described in Schedule 3A – Cross Functional Statement of Work for Customer's enterprise, department business and web applications.

Service Provider shall also provide business analysis services that will provide strategic leadership and operational excellence for Customers application portfolio, based on a thorough understanding of Customer's enterprise and department business operations and citizen needs. These business analysis services include application strategy and planning, recommending solutions that best meet enterprise and department business requirements (e.g., shrink wrap, COTS, SaaS, cloud, custom), technical and functional requirements development, use case development, overseeing and/or executing testing and documentation, and general consulting and research.

2.1 Business Analysis Services

Service Provider shall provide Customer information technology Business Analysis Services in support of helping Customer meet the City's strategic and operational objectives through the use of information systems. Service Provider's Business Analysis Services staff shall work with City departments and the City Information Technology Department on an ongoing and regular basis to provide strategic leadership and advice around steady state and project/initiative-based application activities. Key activities the Service Provider will undertake include:

- Application strategy development, solution evaluation and selection support
- Business requirements support and business process alignment
- Requirements definition
- Leading use case development, testing and documentation activities
- Consulting and research (e.g., researching technical trends and solution alternatives that provide improved performance and reliability, cost-effectiveness and efficiency, working with Customer on an ongoing basis to understand business needs, responding to Customer ad hoc research requests)
- Leading coordination activities (e.g., coordinating patch installation, upgrades, Incident management) with Third Party suppliers (e.g., COTS or SaaS suppliers)

In addition, Service Provider will also execute a scheduled Customer satisfaction survey relating to the Service Provider's Business Analysis Services and roles. These surveys will be distributed to (1) Customer End-Users, and (2) department directors, managers and key subject matter experts (including Customer's IT Department ("ITD")) on an annual basis and will be used to measure the overall satisfaction with the Business Analysis Services being provided by the Service Provider.

The Satisfaction Survey shall meet the associated Service Levels set forth in Schedule 4.

2.2 Application Management, Configuration and Maintenance Services

Service provider shall provide ongoing and project-based application maintenance, configuration and maintenance services for Customer's application portfolio including the following services:

- Application Management and Configuration
    - Requirements Definition
    - Design
    - Environment Acquisition and Installation
    - Application Development, Configuration and Testing
    - Implementation and Deployment
    - Logical Database Administration
    - Project Management
    - Reporting
- Application Maintenance and Support
    - Corrective Maintenance
    - Preventative Maintenance
    - Adaptive Maintenance
    - Perfective Maintenance
    - Release Packaging
    - Incident Management
    - Service Request Management
    - Collaboration Application Support
    - Reporting

2.3 Portfolio Rationalization Services

Service provider shall provide Application Portfolio Rationalization Services including the following:

- Manage and maintain the Customer's enterprise and business applications portfolio and associated data
- Work collaboratively with business and IT stakeholders to identify business goals and critical business processes and interactions
- Perform a periodic current state application portfolio assessment
- Develop and periodically update an application roadmap with prioritized application system initiatives and rough order of magnitude cost and business impact analysis

2.4 Web Support Services

Service Provider shall provide web services to support the City's in scope websites, including the following:

- Website administration

- Content management training for Customer departments
- Website development, enhancements, optimization and quality control
- Social media integration
- Leveraging of existing and emerging third party web tools, technologies and analytics

Without limiting Service Provider's obligations under the Agreement, including this Schedule 3E and the other Schedules referenced in the Agreement, Service Provider's solution and technical approaches for this Service Area shall conform with the Service Provider's solution and technical approaches as provided in the following documents, as such documents may be amended during the term of this Agreement by the Parties in writing, and which are hereby incorporated into this Schedule 3E by reference. Nothing in the following documents shall limit Service Provider's obligations under the Agreement. If the provisions of this Schedule 3E or any other Schedule (including Appendixes) conflict with one or more of the following documents, the provisions of this Schedule 3E or such other Schedule (including Appendixes) shall control.

- Final Service Area Solutions.docx

3. Supported Systems and Quantities

Exhibit 3 identifies the applications that will be supported by the Service Provider. The detailed applications list will be updated during transition and ongoing operations through Change Management.

4. Responsibility Matrix

Exhibit 2 sets forth the Responsibility Matrix for services relevant to this SOW.

5. Support Requirements

The Application Development, Configuration and Maintenance Services will be provided during Customer's normal business hours. The normal Customer business hours are 7:00 am – 7:00 pm (Pacific Time), Monday through Friday excluding holidays or as mutually agreed. All Incidents related to the Application Services shall be addressed (e.g., Resolved) on a 24x7 basis, in accordance with the relevant Service Levels and associated Priority Levels definitions set forth in Schedule 4.

6. Service Levels

The services described in this SOW will be delivered to the Service Levels stated in Schedule 4 Service Levels.

7. Reports

Service Provider shall provide reports relating to this SOW, as set forth in Schedule 7 – Reports.

8. Critical Deliverables

As of the Effective Date of the Agreement, the Critical Deliverables associated with this SOW are provided in Schedule 3A – Cross – Functional Services, Critical Deliverables section.

9. Changes to MSA

This SOW does not change any terms in the MSA and its Schedules.

EXHIBIT 1 – DEFINITIONS

See Schedule 1 – Definitions for a list of defined terms and associated definitions.

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EXHIBIT 2 – RESPONSIBILITY MATRIX

The Responsibility Matrix below shows which party is responsible for the listed task. It is not the intent of the Responsibility Matrix to absolutely identify or define every process, activity or task to be performed by Service Provider as a managed services function

The Responsibility Matrix below applies to both the Customer's enterprise and business (i.e., department) applications.

Business Analysis Services

No.	Responsibility	Service Provider	Customer
	General		
1.	Create and maintain the strategic partnership between business stakeholders and IT delivery	X	
2.	Work with Customer to understand Customer's specific business and IT environments, business process, operations, citizen engagement needs	X	
3.	Work collaboratively with Service Provider to provide specific business and IT environments, business process, operations, Customer engagement needs		X
4.	Provide project leadership and functional project management for implementation of new applications, and modifications or enhancements to existing applications	X	
5.	Perform application systems architecture and strategy development activities based on Service Provider's best practices and applications development and maintenance experience in the local government sector	X	
6.	Work with Customer to understand current and future application needs	X	
7.	Provide input to Service Provider, in order for Service Provider to understand current and future application needs		X
8.	Develop and document Customer application requirements (e.g., functional, technical) in accordance with the Requirement Definition Services in Schedule 3A	X	
9.	Work with the Customer to establish application support, maintenance, and development priorities	X	
10.	Provide input to Service Provider, in order for Service Provider to understand establish application support, maintenance, and development priorities		X
11.	Work with Customer to understand, document and deliver application reporting needs	X	
12.	Provide input to Service Provider, in order for Service Provider to understand application reporting needs		X
13.	Develop process to add required application reporting	X	
14.	Provide input into development of applications roadmap of prioritized application system initiatives	X	
15.	Lead coordination activities with Third Party suppliers (e.g., COTS and SaaS suppliers) for Incident and Problem management and Resolution	X	
16.	Lead coordination activities with Third Party suppliers (e.g., COTS and SaaS suppliers) for application system maintenance and enhancements activities (e.g., patches and upgrades)	X	

No.	Responsibility	Service Provider	Customer
	Consulting and Research		
17.	Provide research and analysis for product/service recommendations	X	
18.	Provide consulting support for Customer applications and processes	X	
19.	Provide consulting support for the development and implementation of new application solutions and related services	X	
20.	As requested by Customer, conduct a comparative analysis of software technologies, packages, SaaS and cloud-based services, databases, integration methods and tools in support of application systems architecture, strategy and planning	X	
21.	As requested by Customer, conduct feasibility studies for the implementation of any new software technologies, packages, SaaS and cloud-based services, tools and services for Customer's review and approval	X	
22.	As requested by Customer, conduct impact assessment studies, for the retirement of legacy software technologies, packages, and tools for Customer's review and approval	X	
	Solution Evaluation		
23.	Upon Customer request or as otherwise applicable, conduct solution evaluations (e.g., COTS software, databases, data warehouses, integration mechanisms, web services, SaaS) to meet Customer's application system requirements and component design specifications	X	
24.	Document and recommend to Customer, for Customer review and approval, solutions to meet application system requirements and design specifications	X	
25.	Provide input to and approve Service Provider-proposed solutions		X
26.	Coordinate and lead solution evaluation demonstrations	X	
27.	Provide input to and participate in solution evaluation demonstrations		X
	Use Cases, Testing and Documentation		
28.	Develop use cases and functional and QA testing and test plans	X	
29.	Provide business process and operations information to assist with use case and testing requirements		X
30.	Develop End-User training, implementation, and support requirements and plans	X	
31.	Coordinate test requirements with Third Party software vendors	X	
32.	Oversee third party execution of Third Party software testing activities and confirm testing requirements are met	X	
33.	Assist Customer with ad hoc and periodic reports design, including data source determination	X	
34.	Provide inputs for ad hoc and periodic reports design requirements		X
	Customer Satisfaction		
35.	Conduct Customer satisfaction survey for the Business Analysis Services and corresponding Service Provider roles	X	
36.	Develop Conduct Customer satisfaction survey report and meet with Customer to review results	X	

No.	Responsibility	Service Provider	Customer
37.	Develop plan to address any areas of Customer dissatisfaction	X	
38.	Review and approve to address any areas of Customer dissatisfaction		X
39.	Execute Customer approved plan to address any areas of Customer dissatisfaction	X	

Application Development and Configuration

The following set of Application Development and Configuration Services shall apply to Customer's current and future application portfolio, which may include:

- COTS applications
- SaaS applications
- Custom developed applications
- Cloud-based applications

Service Provider shall either execute the following roles and responsibilities, or where applicable, shall coordinate the roles and responsibilities associated with third parties (e.g., COTS and SaaS suppliers).

No.	Responsibility	Service Provider	Customer
	Design		
1.	Develop Application System high-level logical and physical design based Customer architecture and business and functional requirements (e.g., use cases, information flows) for application System components	X	
2.	Based on high-level design, provide updated Application Systems development and/or implementation proposal with cost and schedule estimates, including all applicable assets (e.g., Hardware, Software) and ongoing support costs	X	
	Environment Acquisition and Installation		
3.	Provide input and recommendations to the process to document hardware, ancillary equipment, and system Software specifications and network connectivity required to meet functional and non-functional requirements for the development, test, QA and production environments in accordance with Customer architectural and technical standards	X	
	Develop and Test		
4.	Develop application code as required for custom applications	X	
5.	Conduct application code unit testing	X	
6.	Provide Customer data required for testing		X
7.	Provide non-Customer data required for testing	X	
8.	Conduct functional and performance testing per the agreed acceptance test criteria	X	
9.	Document the test results	X	
10.	Review and approve the results of testing		X
	COTS Application Configuration		
11.	Schedule and perform all necessary solutions application configuration, database and integration configuration and	X	

No.	Responsibility	Service Provider	Customer
	development using native solution application tools and languages as required to implement the Customer-approved design plans and specifications		
12.	Test configuration changes for COTS and SaaS applications	X	
13.	Contribute business process and data-related technical knowledge, materials and subject matter personnel to support configuration activities as agreed to by the Parties		X
14.	As part of continuous improvement goals and upon Customer's request, identify, assess and document, for Customer's review and approval, any required business process changes required due to differences in COTS application standard processes and current Customer processes, in order to avoid application customization (and instead use the standard functionality), in compliance with best practices	X	
15.	Provide system Software and utilities configuration recommendations to Service Provider system support team in order to achieve system performance requirements	X	
16.	Manage configuration efforts, across all IT Service Towers and Third Party provider services, using best practice SDLC methodologies and the configuration management procedures	X	
17.	Maintain source code and Third Party Application Software and version control in a Service Provider supplied Software library tool	X	
18.	Configure applications as required to ensure that applications perform as intended	X	
	Implementation and Deployment (Note: The Implementation and Deployment Services below do not apply to SaaS-based applications)		
19.	Configure application system components on the installed physical environment in accordance with the Customer-approved implementation plan	X	
20.	Perform tuning analysis of application systems during implementation and provide recommendations, for Customer's review and approval, to optimize performance based on analysis results; implement approved recommendations	X	
21.	Verify and document to Customer that the required application system components and application system tools are operating in accordance with Customer-approved specifications and requirements	X	
22.	Coordinate deployment and support activities as directed by Customer in accordance with the Customer-approved implementation/migration plan	X	
23.	Develop and document to Customer the detailed "go-live" support and operations plan for Customer's review and approval	X	
24.	Oversee gathering and execution of user acceptance testing	X	
25.	Perform solution user acceptance testing and validate test cutover methodology and results in accordance with the test plan		X
26.	Develop, document, and provide application system steady-state support documentation and all other documentation	X	

No.	Responsibility	Service Provider	Customer
	necessary to operate and support the application system, including administration documentation, application system installation, support, configuration, and tuning manuals, application system back-up and recovery procedures and release notes		
27.	Approve application system steady-state support documentation		X
28.	Perform provide operational readiness review to ensure the application system is ready to receive operational production support from the applicable production support team(s)	X	
29.	Approve production implementation “go/no-go” decisions		X
30.	Provide go-live support as defined in the Customer approved go-live support plan, including making available Service Provider application and infrastructure specialists	X	
31.	Provide application system steady-state support operations	X	
	Logical Database Administration		
32.	Perform database table and index creation and maintenance	X	
33.	Perform database design and schema changes for internal/custom, interface, and web applications	X	
34.	Load and manage data for all supported environments (e.g., development, test, and production)	X	
35.	Provide database administration expertise for the management and tuning of the application databases	X	
	Reporting		
36.	[TBD based on proposal solutions]		

Application Maintenance and Support

Corrective Maintenance Services are the activities associated with the Resolution of Defects, Incidents and Problems to closure to enable Application Systems that are in production to provide the required functionality and to meet applicable Service Levels and performance requirements. Full recovery of the application system(s) will be completed unless otherwise approved by Customer.

Preventive Maintenance Services are the activities performed to address events, which if not addressed proactively, could impact application systems in production.

Adaptive Maintenance Services are the activities associated with proactively ensuring that application system performance is not affected by changes to interfacing application systems, new application systems or packages and technical environment changes, which if not addressed proactively could impact application systems in production.

Perfective Maintenance Services are the activities associated with ensuring that application systems operate at required levels.

Release Packaging Services are the activities associated with the packaging of Software changes into suitable releases, by application system, as approved by Customer. Regularity of releases could vary depending upon size and urgency of individual changes and risk mitigation.

Release Packaging Services includes Block Point Releases. A Block Point Release is a set of activities associated with software (by application system) release planning (e.g., prioritization with End-User, technical team coordination) and execution of Software maintenance activity (e.g., development, testing and deployment) into releases, as approved by Customer.

Service Provider shall either execute the following roles and responsibilities, or where applicable, shall coordinate the roles and responsibilities associated with third party solution providers e.g., COTS vendors.

No.	Responsibility	Service Provider	Customer
	Corrective Maintenance Services		
1.	Resolve Incidents and Problems to closure to enable application systems to provide the required functionality and to meet applicable Service Levels and performance requirements	X	
	Preventive Maintenance Services		
2.	Install (or oversee Third Party installation of) application systems patches	X	
3.	Provide proactive application system performance monitoring, diagnostics and tuning	X	
4.	Perform trend and other analyses on Incidents and Problems, and recommend enhancements, architectural and other application system changes to Customer on recurring issues	X	
5.	Review performance monitoring reports and diagnose and tune application systems	X	
6.	Proactively recommend data archiving improvements to optimize storage volume, performance and costs	X	
	Adaptive Maintenance Services		
7.	Recommend upgrades, patches and modifications including supporting system software e.g., operating system, utilities and middleware	X	
8.	Recommend interface changes	X	
9.	Recommend Hardware configuration changes	X	
10.	Recommend Changes due to regulatory requirements	X	
11.	Recommend Changes in data format	X	
12.	Approve Service Provider Adaptive Maintenance Services recommendations		X
13.	Implement Customer approved Adaptive Maintenance recommendations	X	
	Perfective Maintenance Services		
14.	Perform general application performance tuning, and provide recommendations for system software tuning	X	
15.	Review, assess and respond to capacity and utilization monitoring and management reports, including CPU utilization, memory, database, storage and connectivity	X	
16.	Review, assess and respond to application system response time monitoring and management reports	X	
17.	Provide archiving, backup and data management recommendations to Customer for review and approval and implement Customer approved recommendations	X	
18.	Provide database performance tuning recommendations to Customer for review and approval and implement Customer approved recommendations	X	
	Release Packaging Services		
19.	Package software changes into suitable releases, by application system, as approved by Customer	X	
20.	Oversee third party COTS application developer for release packaging of COTS software releases	X	
21.	Provide electronic and manual software version control	X	

No.	Responsibility	Service Provider	Customer
	Collaboration Application Support		
22.	Work with Customer departments to solve and automate business challenges	X	
23.	Create workflows to enhance inter and intra-department collaboration (e.g., agenda coordination, CAFR reporting)	X	
24.	Enable collaboration with third party providers for key Customer projects	X	
25.	Document repositories and management for key functions (e.g., IT project management, team collaboration)	X	
	Reporting		
26.	[TBD based on proposal solutions]		

Portfolio Rationalization

No.	Responsibility	Service Provider	Customer
	Application Portfolio Management		
1.	Manage and maintain Customer's enterprise and business applications portfolio inventory	X	
2.	Assess new applications for level of impact that will be the scope of the application assessment for each domain identified in Customer's IT Strategic Plan	X	
3.	Assist in identifying new applications for level of impact that will be the scope of the application assessment for each domain identified in Customer's IT Strategic Plan		X
4.	Update applications portfolio inventory data based on changes to the portfolio (e.g., additions, deletions, modifications) and Customer business needs and environment changes	X	
5.	Facilitate annual collaborative workshops with Customer to review application portfolio	X	
6.	Participate in annual collaborative workshops		X
7.	Update application portfolio fields based on Customer approved changes resulting from the annual collaborative workshops	X	
	Application Portfolio Assessment and Roadmap		
8.	Create an annual evaluation report of the application portfolio that identifies opportunities to improve application integration, reduce application redundancy, and achieve economies of scale within the portfolio	X	
9.	Establish the return on investment (ROI) associated with addressing a business problem	X	
10.	Review initial evaluation report and provide input		X
11.	Prioritize the business problems to be addressed according to ROI and urgency	X	
12.	Review, provide input and approve prioritization of business problems to be addressed		X
13.	Develop and maintain applications roadmap with prioritized initiatives and rough order of magnitude cost and business impact, based on Customer-approved prioritization of business problems to be addressed	X	

No.	Responsibility	Service Provider	Customer
14.	Approve applications roadmap		X
	Continuous Improvement		
15.	Maintain and evolve the artifacts created by Portfolio Rationalization	X	

Web Support Services

No.	Responsibility	Service Provider	Customer
1.	Provide administration and support of all Customers websites	X	
2.	Support and train departmental users in content management	X	
3.	Provide web site and web content quality control administration (e.g., broken links, spelling mistakes, formatting)	X	
4.	Ensure website compliance with applicable regulatory requirements (e.g., ADA)	X	
5.	Work with Customer departments to create website content (e.g., event marketing and promotion)	X	
6.	Design and implement website enhancements (e.g., branding, City event promotions and campaigns, website banners) as needed, based on Customer input and direction	X	
7.	Ensure website content is easy to find and well presented for the public	X	
8.	Integrate citizen facing business functions into the City websites (e.g., My Utilities account, MySantaClara CRM, Open City Hall, traffic cams, ESRI story maps (e.g., development projects, parks, historical landmarks))	X	
9.	Integrate current and emerging web technologies to improve and enhance the user experience while visiting City websites (e.g., video streaming of City Council meetings, social media integration, use of HTML 5, open data)	X	
10.	Utilize Third Party tools to assist with website creation and management (e.g. Sitemprove, Pixlr) and social media monitoring and analytics (e.g., Hootsuite)	X	
11.	Use analytics to provide insights for better communication decisions (e.g., reports and dashboards)	X	

EXHIBIT 3 – SUPPORTED APPLICATIONS

All existing City applications included in the scope of this agreement are detailed in Schedule 19 – Customer Software.

SCHEDULE 4

SERVICE LEVELS

TO

MASTER SERVICES AGREEMENT

BY AND BETWEEN
CITY OF SANTA CLARA

AND

SERVICE PROVIDER

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1.0 General

The Service Levels and associated financial ramifications to the Service Provider ("Service Credits") and the Critical Milestones and associated financial ramifications to the Service Provider ("Corrective Assessments"), as described in this Schedule 4, have been designed to encourage the consistent and timely delivery of service and value to the Customer. The Service Credits and Corrective Assessments are not intended to compensate the Customer for damages, but rather to reimburse the Customer the value of the diminished services actually delivered, and to provide incentive to the Service Provider to achieve the Agreement's stated objectives and focus on the Customer's critical needs. The Service Credits and Corrective Assessments will not limit or preclude Customer's right to recover, in accordance with this Agreement, other damages incurred by Customer, or to seek other remedies to which it may be entitled as a result of such failure.

This Schedule 4 outlines the circumstances under which the Customer will be entitled to Service Credits for failures to achieve the Service Levels and/or Corrective Assessments for failures to achieve Critical Milestones. The tables attached to this Schedule 4 shall be updated to reflect the Customer's current initiatives and service requirements at least annually. On a quarterly basis, the Customer may unilaterally adjust Service Credit weighting factors ("Weighting Factors") for Service Levels, but must give the Service Provider thirty (30) days prior written notice. The maximum Weighting Factor on any one Service Level shall not exceed fifteen percent (15%). The sum of all Weighting Factors for Service Levels shall not exceed two hundred percent (200%), and under no circumstance shall the sum of all Service Credits with respect to the Service Levels exceed fifteen percent (15%) of the sum of that Contract Year's recurring Fees.

Exhibit 1 to this Schedule 4 identifies, among other things, the Service Levels and the Weighting Factors for each such Service Level.
For the purposes of this Schedule 4, Failure shall mean (a) with respect to Service Levels, the failure to meet such Service Level performance (calculated using the formula in the applicable Service Level Requirements table set forth in Schedule 4, Exhibit 1) with respect to the specified performance target for the applicable measurement interval, and (b) with respect to a Critical Milestone, the failure to achieve such Critical Milestone by the specified end date or due date as set forth in the Transition Plan, Termination Assistance Plan or through any project.

2.0 Service Levels

Each Service Level set forth in Schedule 4, Exhibit 1 identifies key performance measures that will be used to evaluate the Service Provider's delivery of the requested Services. The overriding goal in developing Service Levels is to support the Customer's desire to manage the Service Provider by monitoring and measuring performance on the Customer's most-important business and technical requirements. The Customer expects the Service Levels to improve over time.

2.1 Service Credits

For each month of each Contract Year, the portion of Fees at-risk, or available, for Fee Reductions ("Monthly At-Risk Amount") for the Service Provider's failure to meet Service Levels is fifteen percent (15%) of one twelfth (1/12) of the sum of that Contract Year's recurring Fees, which shall be estimated at the beginning of each Contract Year. If a significant Change in the Contract Year's estimated recurring Fees occurs during that Contract Year, the total Monthly At-Risk Amount will be adjusted accordingly. The Service Credits for the Service Provider's failure

to achieve the Service Levels are set forth in Schedule 4, Exhibit 1. The non-attainment of the Service Levels by the Service Provider will result in a reduction of Fees for each affected Service Level based on the percentage amount shown in the applicable table. Service Credits are not capped on a monthly basis, but shall not exceed the total Monthly At-Risk Amount, except as outlined below in Section 2.1.3.

2.1.1 Annual Service Credits Cap

In addition to, and independent of the Monthly At-Risk Amount and associated Service Level Credits, should the sum of all calculated Service Level Credits total 15% or more of the currently estimated annual recurring fees during a Contract Year, the Agreement shall be deemed to be in default and such other provisions will apply as outlined in the Agreement. The Customer expects to develop new Service Levels to reflect changing needs or new projects, and the Service Levels may be added to or deleted from, and Weighting Factors may be modified in Schedule 4, Exhibit 1. In the absence of any modifications to Schedule 4, Exhibit 1, the Performance Targets, Service Levels and Weighting Factors therein shall apply to all Contract Years.

2.1.2 Initial Service Level Failure Service Credit

Upon any initial failure of the Service Provider to attain a Service Level in a Measurement Interval, the associated Service Credit shall be equal to the product of: (i) the Monthly At-Risk Amount, multiplied by (ii) the Weighting Factor for the Service Level that was missed. If more than one Service Level failure occurs in any single Measurement Interval, and such Service Level failures are due to the same root cause, Customer shall be entitled to determine which one (1) of the applicable Service Levels shall be subject to a Service Credit, but in no event shall more than one (1) such Service Level be subject to a Service Credit in such circumstances. Customer shall be entitled to Service Level Credits, as applicable, for the other Service Level Failures that have a root cause other than the single Incident referred to above.

2.1.3 Multiple Failures

Consecutive Failures: If the Service Provider does not attain a Service Level in two (2) or more consecutive Measurement Intervals, the Weighting Factor for the second (2^{nd}), third (3^{rd}), and subsequent consecutive Measurement Intervals shall be increased as follows:

Second Measurement Interval	1.5 x the Weighting Factor
Third and Subsequent Measurement Intervals	2 x the Weighting Factor

The Service Provider's failure to attain a Service Level in four (4) consecutive Measurement Intervals shall be considered a material breach and the Service Provider shall be in default of the Agreement. The Customer shall have the right to terminate the Agreement for default, pursuant to Section 15.4.3 of the Agreement.

Non-consecutive Failures: In addition, if the Service Provider does not attain a Service Level for any three (3) or more non-consecutive Measurement Intervals in any Contract Year, the Weighting Factor for each such Measurement Interval shall be increased as follows:

Third, Fourth and Fifth Measurement Interval	1.5 x the Weighting Factor
Sixth and Subsequent Measurement Intervals	2 x the Weighting Factor

Notwithstanding the foregoing, and for the purpose of Service Credits, where the Measurement Interval for a particular Service Level is for a duration of less than one (1) month, for purposes of the calculations set forth above only, the Measurement Interval shall be deemed to be one (1) month; provided that the Measurement Interval shall continue to apply for the purpose of meeting such Service Level. By way of example, but not in limitation of the foregoing, if the Measurement Interval of a Service Level is one (1) week, the Service Provider shall be required to meet the Service Level as measured on a weekly basis; provided that if such Service Level is missed in any week of month one (1), a miss of such Service Level in any other week of month one (1) shall not trigger the increase of the Weighting Factor set forth above. If such Service Level is subsequently missed in any week of month two (2), such miss shall trigger the increase in the Weighting Factor as set forth above adjacent to "Second Measurement Interval" and a subsequent consecutive miss in any week of month three (3) shall trigger the increase in the Weighting Factor as set forth above adjacent to "Third and Subsequent Measurement Intervals." This Section 2.1.3 is applicable only where all applicable failures occurred against a Service Level with a Weighting Factor greater than 0%.

2.1.4 Failures Across Service Level Requirements

If there are failures across seven (7) or more Service Levels in any one month on Service Levels that are assigned a Weighting Factor of zero percent (0%), then an automatic Service Credit will be invoked at seven percent (7%) of the Monthly At-Risk Amount.

2.1.5 Service Level Reporting

Each month, Service Provider will track and report on Service Levels performance against the targets in Exhibit 1 to this Schedule. Such reports will show overall Service Provider performance and highlight performance that does not meet defined Service Level targets or is outside of expected levels. Service Provider will include a corrective action plan for any Services not meeting the defined Service Level targets.

3.0 Critical Milestones

3.1 Critical Milestones At-Risk Amount

The portion of Fees at-risk, or available, for Corrective Assessments for the Service Provider's failure to meet agreed Critical Milestones shall be as follows:

At-Risk Amount for Critical Milestones associated with projects with specific Project Fees (e.g., Transition Services) – fifteen percent (15%) of the Total Project Fees for each project.

The Corrective Assessments for the Service Provider's failure to achieve the Critical Milestones will be set forth in the applicable Agreement document (e.g., Schedule 13 (Transition Services and Deliverables). Each Critical Milestone shall identify key project milestones that will be used

to evaluate the Service Provider's delivery of the requested Services. The overriding goal in developing Critical Milestones is to support the Customer's desire to manage the Service Provider by monitoring and measuring actual performance against the Customer's most-important business deadlines. The Customer expects to develop new Critical Milestones to reflect changing needs or new projects and may be added at the Customer's discretion and as mutually agreed by the Parties.

Critical Milestones includes Critical Transition Milestones, as applicable.

3.2 Failure to Timely Achieve a Critical Milestone

If the Service Provider fails to achieve any Critical Milestone by the corresponding date for achieving such Critical Milestone, then the Corrective Assessment shall be equal to the product of: (i) the At-Risk Amount, multiplied by (ii) the Weighting Factor for the Critical Milestone that was missed.

3.3 Critical Milestone Corrective Assessment

Upon any failure with respect to a Critical Milestone, if and as specified in an applicable Agreement document, the Customer shall have the right to impose the applicable Corrective Assessment on the Service Provider, pursuant to Section 3.2 herein. Such Corrective Assessments shall not apply toward calculation or satisfaction of the any of the At-Risk Amounts associated with Service Levels pursuant to Article 2.0, Service Levels, herein.

City of Santa Clara
Schedule 4, Exhibit 1- SLRs and Fee Reduction Weighting Factors
Svc Lvls and Weighting Factors

Service Level	Service Measure	Performance Target	Minimum Performance	Measurement Interval	Reporting Period	Formula	Measurement Tool	Fee Reduction Weighting Factor
Cross Functional Services								
Project Service Levels								
Project Proposal Response (e.g., timelines, deliverables, pricing, assumptions & constraints, comprehensive and complete written documentation, required Service Provider authorizations)	Proposal Delivery	5 Business Days	95%	Monthly	Monthly	Performance = Proposal request delivered within required time/total proposals requested by the City	Response times reviewed in project and tower meetings.	
Project Deliverables Completion	Deliverables Completed On Time	97%	n/a	Monthly	Monthly	Number of Project Deliverables required to be completed during the Measurement Interval that are completed in the required time frame / number of Project Deliverables required to be completed during the Measurement Interval] * 100%	Project completion deliverables reviewed in project and tower meetings using PMO templates. See section 7.1.2 on processes and monitoring of individual projects.	5%
Service Request Service Levels	Service Requests cover a variety of work requests that the City may require. Service Provider shall have primary and overall responsibility for developing any requirements associated with a Service Request, and shall work with each requestor to develop any such requirements.							
Service Requests	Service Request Completion on Schedule	Per Schedule	95%	Monthly	Monthly	[Number of Service Requests that are required to be completed during the Measurement Interval that are completed within the required time frame /number of Service Requests required to be completed during the Measurement Interval] * 100%	Service Now	5%
Software Refresh and Updates								
Deploy Emergency Maintenance Release (e.g., security pack, bug patch, antivirus, anti-SPAM, and anti-Spyware update deployments)	Time to deploy	Perform within one Business Day of signoff, subject to agreed upon Change Management procedures.	95.0%	Monthly	Monthly	Number of events completed on time/total of events occurring during Measurement Period	Service Now	10%
Deploy Non-Emergency Maintenance Release	Time to deploy	Perform within next regular maintenance time window or per City approved schedule	95.0%	Monthly	Monthly	Number of events completed on time/total of events occurring during Measurement Period	Service Now	5%
Deploy Minor Release (e.g., XYZ Version 8.1 to XYZ Version 8.2)	Time to Deploy	Per schedule	95.0%	Monthly	Monthly	Number of events completed on time/total of events occurring during Measurement Period	Service Now	0%
System/Security Administration								

Service Level	Service Measure	Performance Target	Minimum Performance	Measurement Interval	Reporting Period	Formula	Measurement Tool	Fee Reduction Weighting Factor
Proposal for Security Remediation Following Discovery of Security Risk (e.g., timelines, deliverables, assumptions & constraints, comprehensive and complete written documentation)	Proposal Delivery	Within 1 Business Day for following discovery of high security risk, 3 Business days for moderate security risk, and 5 business days for low security risk.	95%	Monthly	Monthly	Number of events completed within performance target /events occurring during Measurement Interval	Service Now	
Implementation of Emergency Firewall Changes (changing, adding/deleting firewall rules)	Response time	≤2 hours after City approval	99%	Monthly	Monthly	Events completed within performance target / total events	Service Now & Change Management Process	5%
Implementation of Standard Firewall Changes (changing, adding/deleting firewall rules)	Response time	Within normal Change control procedures after approval by the City	99%	Monthly	Monthly	Events completed within performance target / total events	Service Now & Change Management Process	
Security Service Measures	These Service Levels ensure end-to-end security monitoring and management. Performance of all proactive security activities including but not limited to: monitoring, software installation, patching, performance monitoring and tuning, instances creation and refresh, recovery, redundancy of operations, and deficiency remediation planning. Performance of all reactive security activities including but not limited to: security Incident Resolution and security remediation planning.							
Monitoring and Notification for Current Attack Signatures - NIDS, WIDS and Log Monitoring Systems	Overall Schedule	Sun Sat, 0000 2400	99.99%	Monitor Continuously, Measure Daily	Monthly	[Transactions completed per Management Task within Performance Target / Total Transactions per Management Task occurring during the Measurement Interval]*100%	Anti-virus, IDS, IPS, Firewall	
Endpoint Malware Protection Software	Current version of malware protection software	Service environment device endpoints are installed, configured and operating with current Malware protection (where possible)	99.90%	Monthly	Monthly	[Number of service environment device endpoints operational with latest version of Malware protection Software as of the last day of the Measurement Interval/total number of service environment endpoints as of the last day of the Measurement Interval] * 100%	Anti-virus	
Endpoints DAT Compliance	Current version of DATs	service environment device endpoints are operational with latest DAT version	97.00%	Monthly	Monthly	[Number of service environment device endpoints operational with latest DAT version as of the last day of the Measurement Interval /number of endpoints as of the last day of the Measurement Interval * 100%	Anti-virus	
Signature Update for NIDS, WIDS and Log Monitoring Systems	Elapsed Time	Within 2 hours of release or being published	99.00%	Monitor Continuously, Measure Daily	Monthly	[Transactions completed per Management Task within Performance Target / Total Transactions per Management Task occurring during the Measurement Interval]*100%	Anti-virus, IDS, IPS, Firewall	

Service Level	Service Measure	Performance Target	Minimum Performance	Measurement Interval	Reporting Period	Formula	Measurement Tool	Fee Reduction Weighting Factor
Testing of Vulnerabilities & Penetration	Overall Schedule	Sun Sat, 00:00 - 24:00	99.90%	Monitor Continuously, Measure Daily	Monthly	[Transactions completed per Management Task within Performance Target / Total Transactions per Management Task occurring during the Measurement Interval]*100%	NCAT, MAIZE, DHS	
Containment of Security Vulnerabilities or Incidents	Mean Time to Contain (Mean Time to Contain measures the total elapsed time between detection of the vulnerability or incident and the time for the Service Provider to implement countermeasures or containment measures, so as to mitigate further propagation or escalation of the vulnerability or incident)	Priority Level 1: 2 hours Priority Level 2: 6 hours	99.0% 99.0%	Monitor Continuously, Measure Daily	Monthly	[Transactions completed per Management Task within Performance Target / Total Transactions per Management Task occurring during the Measurement Interval]*100%	Service Now	5%
Remediation	Elapsed Time	Critical and High Plan of Action and Milestones (POA&M) items closed within 10 days	100.00%	Monitor Continuously, Measure Daily	Monthly	[Transactions completed per Management Task within Performance Target / Total Transactions per Management Task occurring during the Measurement Interval]*100%	Service Now	
Remediation	Elapsed Time	Moderate and Low POA&M items closed within 30 days	95.00%	Monitor Continuously, Measure Daily	Monthly	[Transactions completed per Management Task within Performance Target / Total Transactions per Management Task occurring during the Measurement Interval]*100%	Service Now	
Incident Resolution								
Time to Notify the City of a Priority 1 or 2 Incident	Time to respond	<15 minutes	95.0%	Monthly	Monthly	Number of requests completed within performance target/total of all requests occurring during Measurement Interval	Service Now & MIM process	5%
Incident Resolution - Priority Level 1	Time to Resolve	<4 hours	95.0%	Monthly	Monthly	Number of requests completed within performance target/total of all requests occurring during Measurement Interval	Service Now	10%
Incident Resolution - Priority Level 2	Time to Resolve	<8 hours	95.0%	Monthly	Monthly	Number of requests completed within performance target/total of all requests occurring during Measurement Interval	Service Now	5%
Incident Resolution - Priority Level 3	Time to Resolve	Next Business Day	95.0%	Monthly	Monthly	Number of requests completed	Service Now	5%

Service Level	Service Measure	Performance Target	Minimum Performance	Measurement Interval	Reporting Period	Formula	Measurement Tool	Fee Reduction Weighting Factor
						within performance target/total of all requests occurring during Measurement Interval		
Incident Resolution - Priority Level 4	Time to Resolve	Next Business Day or as prioritized by Service Provider	95.0%	Monthly	Monthly	Number of requests completed within performance target/total of all requests occurring during Measurement Interval	Service Now	0%
Root Cause Analysis	Time to provide initial report of Incident cause	Within 24 hours of Incident Resolution for Priority Level 1 or 2 (or by the end of the next Business Day if the calculated 24 hour time to provide the initial report of the Incident cause falls outside of Business Hours)	98.0%	Monthly	Monthly	Number of requests completed within performance target/total of all requests occurring during Measurement Interval	Service Now	5%
	Time to provide Formal Root Cause Analysis report	Within 5 Business Days of Incident Resolution for Priority Level 1 or 2	98.0%	Monthly	Monthly	Number of requests completed within performance target/total of all requests occurring during Measurement Interval	Service Now	
Asset Tracking Accuracy	Within fifteen (15) Business Days after the first Business Day of each calendar quarter, Service Provider will select a statistically valid sample, based on Service Provider's asset tracking system and in accordance with the process specified in the Procedures Manual, to measure Service Provider's compliance with the following Service Level.							
Accuracy of Asset Information	Accuracy as determined by audit	n/a	95% of assets audited have all information accurate	Quarterly	Quarterly	[Number of assets sampled during the Measurement Interval where all data elements are determined to be correct/number of assets sampled during the Measurement Interval] * 100%	SCCM	5%
Documentation Accuracy	Within five (5) Business Days after the first Business Day of each calendar quarter the City shall select a statistically valid sample, based on the Service Provider-maintained environment documents, knowledge base entries, and the Disaster Recovery Plan that have changed during the previous quarter and in accordance with the process specified in the Procedures Manual, to measure Service Provider's compliance with the following Service Levels pertaining to the accuracy of changes to the documentation, knowledge base entries, and Disaster Recovery Plan over the previous quarter. Accuracy of data shall adhere to the following Service Level.							
Documentation Accuracy - Service Environment Documents, Knowledge Base Entries and DR Plan	Accuracy as determined by audit	n/a	98%	Quarterly	Quarterly	Number of tracked documents where document is determined to be correct/total number of tracked documents sampled	Document review	5%
Software License Management	Within five (5) Business Days after the first Business Day of each calendar quarter the City shall select a statistically valid sample, based on the software licenses that Service Provider is managing and in accordance with the process specified in the Procedures Manual, to measure Service Provider's compliance with the following Service Levels pertaining to the currency of the software licenses. Accuracy of data shall adhere to the following Service Level.							
Software License Currency	Accuracy as determined by audit	n/a	98%	Quarterly	Quarterly	Number of licenses where license is determined to be current/total number of software licenses sampled	SCCM	5%

City of Santa Clara
Schedule 4, Exhibit 1- SLRs and Fee Reduction Weighting Factors
Svc Lvls and Weighting Factors

Service Level	Service Measure	Performance Target	Minimum Performance	Measurement Interval	Reporting Period	Formula	Measurement Tool	Fee Reduction Weighting Factor
Reporting Timeliness								
Operational Report Delivery Timeliness	Delivery of Reports	Reports completed and delivered on time	95% of reports with the City required content by Due Date 100% within +2 Business Days of Due Date	Monthly	Monthly	[Number of Reports required to be delivered during the Measurement Interval that are delivered by the Due Date in the required format and to the required recipient(s)/number of Reports required to be delivered during the Measurement Interval] * 100% "Due Date" means (1) for Reports listed in Schedule 7 - Reports to the Agreement, the due date specified in such Schedule and (2) for ad hoc Reports, the due date specified by the City	Operation Meeting and material held and provided per cadence	5%
Operational Improvement Recommendations								
Operational Efficiencies Improvements - Service Tower and Department IT Improvement Recommendation Completion	Delivery of Recommendations	At least 4 Improvement Recommendations per Service Tower and at least 1 Improvement Recommendation per supported City department	100%	Semi-annual	Semi-annual	[Number of Recommendations delivered during the Measurement Interval /number of Recommendations required to be delivered during the Measurement Interval] * 100%	Results included in operation meetings	5%
Innovation Recommendations								
City Innovation Recommendations Completion	Delivery of Recommendations	At least 3 Innovation Recommendations	100%	Semi-annual	Semi-annual	[Number of Recommendations delivered during the Measurement Interval /number of Recommendations required to be delivered during the Measurement Interval] * 100%	Included in tower meetings	
Training and Certification								
Service Provider Onboarding Training	Training of Service Provider Personnel	All Service Provider Personnel must have completed account onboarding training for the City's specific environment before starting on the City account	100%	Quarterly	Quarterly	[Number of new Service Provider that have received onboarding training during the Measurement Interval /number of new Service Provider Personnel onboarded during the Measurement Interval] * 100%	Included in onboard process and no issues found	

Service Level	Service Measure	Performance Target	Minimum Performance	Measurement Interval	Reporting Period	Formula	Measurement Tool	Fee Reduction Weighting Factor
Satisfaction Scheduled Survey	Service Provider shall establish a mutually agreed upon satisfaction survey and process, that may be facilitated by a Third Party and designed with City and Service Provider input. Upon delivery of each such survey report, the Parties shall meet to discuss the results and jointly identify any areas of dissatisfaction. The Service Provider shall prepare a project plan with the City's input and approval to Resolve dissatisfaction. The Parties must meet and confer on all Service Provider survey reports in order for the Service Provider to meet each of the Scheduled Survey Service Levels.							
End-User Scheduled Survey (conducted annually)	End-User Satisfaction	Those surveyed should be very satisfied or satisfied (4 or 5 on a 1 to 5 scale survey)	90%	Annual	Annual	TBD	Results included in governance meetings	5%
Department and City Program Management Schedule Survey (conducted annually)	Department and Program Management Satisfaction	Those surveyed should be very satisfied or satisfied (4 or 5 on a 1 to 5 scale survey)	90%	Annual	Annual	TBD	Results included in governance meetings	5%
Business Analysis Services Scheduled Survey (conducted annually)	End-User and Department Satisfaction with Service Provider's Business Analysis Services	Those surveyed should be very satisfied or satisfied (4 or 5 on a 1 to 5 scale survey)	90%	Annual	Annual	TBD	Results included in governance meetings	
Desktop Services								
IMACDs								
1-5 in a single request	Elapsed time to deploy	Within 3 Business Days of request	95.0%	Monthly	Monthly	Number of instances within performance target / total number of instances during Measurement Interval = percent (%) attained	Service Now	5%
> 5 in a single request	Date and time scheduled	As agreed case by case						
Urgent request, single move	Elapsed time to deploy	Per agreed schedule, but no later than 2 Business Days						
Asset Disposition Reporting								
Asset Disposition Reporting and Plan	Delivery of Reports	Reports completed and delivered on time	100%	Quarterly	Quarterly	Events completed within performance target / total number of events occurring during the Measurement Interval	Reports delivered on time	
Service Desk Services								
Service Desk Availability	Service Desk Availability refers to the required timeframes during which certain Services provided by the Service Desk must be available to End-Users, and response to automatically generated Service Desk trouble tickets is achieved. All Service Desk components under the control of the Service Provider must be available. Service Desk components not under the control of the Service Provider are excluded from the measurement.							
Service Desk Availability	Schedule	24x7x365	100.0%	Monthly	Monthly	Availability(%) = 100% - Unavailability (%) Where Unavailability is defined as: [(Sum of Outage Duration) / (Scheduled Time)]% Scheduled Time = (Total possible time in Measurement Interval – maintenance window time)	Review adherence at monthly operations review	5%

Service Level	Service Measure	Performance Target	Minimum Performance	Measurement Interval	Reporting Period	Formula	Measurement Tool	Fee Reduction Weighting Factor
Response Time	Response Time is the number of seconds or cycles it takes an End-User to connect with Service Provider's Service Desk representative. Service Provider will provide United States telephone lines in adequate quantity to handle call volume, ACD system(s) to record call date, time and duration information, and electronic interfaces to all systems for monitoring and reporting. Call Abandonment Rate is defined as calls received at Service Desk that enter the queue and that are terminated (user hang up) prior to pickup by human operator or after voice response unit options (VRU) have been selected. The assumption is that the caller hung up because call took too long to answer.							
Speed to Answer	Phone response time	≤ 60 seconds	95.0%	Monthly	Monthly	Number of events per event type within performance target / total number of events per type during Measurement Interval = percent (%) attained	Service Now	5%
Call Abandonment Rate	Phone response time	≤6%	100%	Monthly	Monthly	Number of events per event type within performance target / total number of events per type during Measurement Interval = percent (%) attained	Service Now	
Email Response Rate	Online response time	≤ 1 hour	95%	Monthly	Monthly	Number of events per event type within performance target / total number of events per type during Measurement Interval = percent (%) attained	Service Now	
Level 1 Resolution								
First Contact Resolution (escalation to Level 2 does not qualify as being Resolved)	First Contact Resolution percentage	75% with <5% recalls	N/A	Monthly	Monthly	Number of instances within performance target / total number of instances during Measurement Interval = percent (%) attained	Service Now	5%
Level 1 Time to Resolution (escalation to Level 2 does not qualify as being Resolved)	Elapsed time	<2 hours with <5% recalls	95%	Monthly	Monthly	Number of instances within performance target / total number of instances during Measurement Interval = percent (%) attained	Service Now	
End-User Account Administration								
New End-User Account (up to 5 per request)	Elapsed time	Completed next Business Day of authorized request	95.0%	Monthly	Monthly	Number of instances within performance target / total number of instances during Measurement Interval = percent (%) attained	Service Now	
New End-User Account (6+ per request)	Elapsed time	Per agreed schedule, but no later than 3 Business Days	N/A	Monthly	Monthly	Number of instances within performance target / total number of instances during Measurement Interval = percent (%) attained	Service Now	
Password Reset (Phone Call, Chat or Automated Reset if Available)	Elapsed time	Completed within 5 minutes of receipt of request	95.0%	Monthly	Monthly	Number of instances within performance target / total number of instances during Measurement Interval = percent (%) attained	Service Now	

Service Level	Service Measure	Performance Target	Minimum Performance	Measurement Interval	Reporting Period	Formula	Measurement Tool	Fee Reduction Weighting Factor
Password Reset (Email or Web Ticket)	Elapsed time	Completed within 45 minutes of receipt of request	95.0%	Monthly	Monthly	Number of instances within performance target / total number of instances during Measurement Interval = percent (%) attained	Service Now	
Privilege Changes	Elapsed time	Within 2 Business Day hours of the City authorized request	95.0%	Monthly	Monthly	Number of instances within performance target / total number of instances during Measurement Interval = percent (%) attained	Service Now	
Disable End-User Account (Urgent Request - Phone Call)	Elapsed time	Within 5 minutes of the City authorized request	99.0%	Monthly	Monthly	Number of instances within performance target / total number of instances during Measurement Interval = percent (%) attained	Service Now	
Disable End-User Account (Non-Urgent Request- Phone Call, Chat, Email or Web Ticket)	Elapsed time	Within 60 minutes of the City authorized request	99.0%	Monthly	Monthly	Number of instances within performance target / total number of instances during Measurement Interval = percent (%) attained	Service Now	
Terminate End-User Account	Elapsed time	Within 14 Business Days of authorized request, unless otherwise requested	99.9%	Monthly	Monthly	Number of instances within performance target / total number of instances during Measurement Interval = percent (%) attained	Service Now	
Incident Closure Notice								
Incident Closure Notice (via e-mail and/or phone)	Elapsed time	< 30 minutes following Incident Resolution (note: based on City End-User approval of ticket closure)	98%	Monthly	Monthly	Number of instances within performance target / total number of instances during Measurement Interval = percent (%) attained	Service Now	
Application Management, Configuration and Maintenance Services								
Application Changes (Enhancements, Configuration Changes)								
Delivery Time	Delivery	Delivered by the date agreed in the Project Statement of Work	95%	Monthly	Monthly	[Number of Application Changes required to be delivered during the Measurement Interval that are delivered in the required time frame / number of Application Changes required to be delivered during the Measurement Interval] * 100%	Project completion deliverables reviewed in project and tower meetings using PMO templates. See section 7.1.2 on processes and monitoring of individual projects.	

Service Level	Service Measure	Performance Target	Minimum Performance	Measurement Interval	Reporting Period	Formula	Measurement Tool	Fee Reduction Weighting Factor
Adherence to Scope	Functional Requirements Met	All functional requirements met by the completion of UAT	95%	Monthly	Monthly	[Number of Application Changes for which UAT completes during the Measurement Interval for which all functional requirements were accepted by the completion of UAT / number of Application Changes for which UAT completes during the Measurement Interval] * 100%	Scope reviewed in project and tower meetings using PMO templates. See section 7.1.2 on processes and monitoring of individual projects.	
Planned and Scheduled Application Changes	Production Deployment	Changes are deployed on time (includes completion of UAT, all training and other activities associated with the planned deployment)	95%	Monthly	Monthly	[Number of Application Changes required to be deployed during the Measurement Interval that are deployed on time per the project plan / number of Application Changes required to be deployed during Measurement Interval] * 100%	Change Management Templates & Process	
Enterprise Compute Services								
System Availability	System Availability is defined as the availability of in scope components required to conduct the normal business operation of the City Application systems including servers (e.g., server CPU, memory, internal storage), external storage, System Software and network connection. Availability will be measured based on the availability of each the City Application (i.e. excludes application availability and other out-of-scope components as determined by Root Cause Analysis) to conduct the normal business operation by all End-Users of the applicable the City Application. Excludes scheduled maintenance window.							
System Availability - Mission Critical Systems (Production)	System Availability	Per Schedule	99.99%	Monthly	Monthly	Availability(%) = 100% - Unavailability (%)	Vanda (Nagios)	10%
System Availability - Business Critical (Production)	System Availability	Per Schedule	99.90%	Monthly	Monthly	Availability(%) = 100% - Unavailability (%)	Vanda (Nagios)	10%
System Availability - Business Important (Production)	System Availability	Per Schedule	99.50%	Monthly	Monthly	Availability(%) = 100% - Unavailability (%)	Vanda (Nagios)	10%
System Availability - Non- Production Systems	System Availability	Per Schedule	98.50%	Monthly	Monthly	Availability(%) = 100% - Unavailability (%)	Vanda (Nagios)	5%
Unscheduled Downtime for Each City Application	Unscheduled downtime	Inability to conduct normal business operation due to unscheduled City Application downtime not to exceed 4 times per month, per City Application	100%	Monthly	Monthly	Number of unscheduled downtimes ≤ 4	Service Now	5%
Capacity Management								

Service Level	Service Measure	Performance Target	Minimum Performance	Measurement Interval	Reporting Period	Formula	Measurement Tool	Fee Reduction Weighting Factor
Capacity and Utilization	Capacity and Utilization of Physical Servers, Virtual Servers and Storage Devices	Physical servers, virtual servers and storage devices that meet asset utilization / capacity levels defined by Customer	100%	Quarterly	Quarterly	Number of asset categories meeting defined capacity/ utilization/ levels during the Measurement Interval/number of defined capacity utilization levels required to be maintained during the Measurement Interval] * 100%	Nimble, Vanda (Nagios)	
Event Processing	Scheduled Production Events: events include event setup, execution and completion of normally scheduled production batch jobs.							
Scheduled Production Events	Per scheduled time	Complete core jobs events per the City's approved schedule	99%	Daily	Monthly	Complete core jobs events per the City's approved schedule	Results included in operation meetings	
Backups	Service Provider shall implement and maintain backup and restoration capabilities for specified Service Tower data, applications and component configurations as defined in each Service Tower SOW. Service Provider shall perform error and omission free incremental backups, full backups and full archive backups according to the Backup Schedule presented below. Recovery procedures will be capable of restoring Service delivery for failed Service Tower data, applications and component configurations according to the Restoration Service Levels listed below. Service Tower components requiring scheduled backups shall be referenced in the service environment section of each Service Tower SOW.							
Incremental Daily Backup Offsite Storage Retention for 35 days	Successful backup and storage	Per Schedule	98%	Monthly	Monthly	Number of backups completed on schedule/total of all backups scheduled during Measurement Interval	Results included in operation meetings	
Full Weekly Backup Offsite Storage Retention for 5 weeks	Successful backup and storage	Per Schedule	100%	Monthly	Monthly	Number of backups completed on schedule/total of all backups scheduled during Measurement Interval	Results included in operation meetings	
Full Monthly Archive Backup Offsite Storage Retention Indefinite	Successful backup and storage	Per Schedule	100%	Monthly	Monthly	Number of backups completed on schedule/total of all backups scheduled during Measurement Interval	Results included in operation meetings	
Quarterly Test of Backup Restore Process	Test results	Successful tests	100%	Quarterly	Quarterly	TBD	Results included in operation meetings	
Disaster Recovery Testing								
DR Test	Successful DR test	Successful annual test of each DR recovery time	100%	Annual	Annual	Number of tests completed within performance target /total of all tests occurring during Measurement Interval	Success per DR plan	5%
Cloud Provisioning								
Cloud Server (Compute) Provisioning	Time to provision new cloud compute instance(s)	≤1 Business Day after City approval (subject to change control and change management processes)	95%	Monthly	Monthly	Events completed within performance target / total events	Service Now	5%

Service Level	Service Measure	Performance Target	Minimum Performance	Measurement Interval	Reporting Period	Formula	Measurement Tool	Fee Reduction Weighting Factor
Network Availability	Network Availability is defined as the time during which connectivity is fully functioning and normal business operations can be carried out with no data loss, downtime, or performance degradation.							
WAN Availability	Availability	24 x7 Excluding maintenance window	99.99%	Monitor continuously, measure monthly	Monthly	Availability(%) = 100% - Unavailability (%) Where Unavailability is defined as: [(Sum of Outage Duration) / (Scheduled Time)]% Scheduled Time = (Total possible time in Measurement Interval – maintenance window time)	Vanda (Nagios)	10%
LAN Availability	Availability	24 x7 Excluding maintenance window	99.99%	Monitor continuously, measure monthly	Monthly	Availability(%) = 100% - Unavailability (%) Where Unavailability is defined as: [(Sum of Outage Duration) / (Scheduled Time)]% Scheduled Time = (Total possible time in Measurement Interval – maintenance window time)	Cisco Prime, Vanda (Nagios)	10%
VPN Availability	Availability	24 x7 Excluding maintenance window	99.99%	Monitor continuously, measure monthly	Monthly	Availability(%) = 100% - Unavailability (%) Where Unavailability is defined as: [(Sum of Outage Duration) / (Scheduled Time)]% Scheduled Time = (Total possible time in Measurement Interval – maintenance window time)	Firewall, Vanda (Nagios)	5%
Internet Access Availability	Availability	24 x7 Excluding maintenance window	99.99%	Monitor continuously, measure monthly	Monthly	Availability(%) = 100% - Unavailability (%) Where Unavailability is defined as: [(Sum of Outage Duration) / (Scheduled Time)]% Scheduled Time = (Total possible time in Measurement Interval – maintenance window time)	Cisco Prime, Vanda (Nagios)	5%
							Total	**200%**

Priority Levels

PRIORITY MATRIX		IMPACT		
		High	**Medium**	**Low**
URGENCY	**High/Emergency**	Priority Level 1	Priority Level 2	Priority Level 3
	Medium	Priority Level 2	Priority Level 3	Priority Level 4
	Low	Priority Level 3	Priority Level 4	Service Request

Priority Level Definitions and Examples		
Priority Level	**Definitions**	**Examples**

Priority Level	Definitions	Examples
Priority Level 1 — Emergency / Urgent *Critical Business Impact*	1) The Incident has caused a complete and immediate work stoppage or significant performance degradation affecting a Mission Critical system, primary business process or a broad group of users, and no workaround is available 2) Designated a "security emergency" or "cyber breach" by the City . 3) Service Requests (e.g., IMACD) and Incidents originating from designated City groups 4) Incidents originating from City Council and City Commission meetings	**Business and Financial Examples** · Enterprise-wide visibility (includes internal and external business partners and customers) · Critical to major impact on external customers conducting business with the City or a Public Safety system · Customers unable to process any business transactions · The failure creates a serious business or public safety exposure · City employees unable to conduct critical functions **System / Infrastructure Examples** · Critical capability is degraded or is not available · A Mission Critical categorized system is degraded or is not available · Multiple Systems and/or functions are down · Multiple locations, buildings, departments · Network outage: LAN/WAN/Internet failure · Security threat, i.e., virus or worm spread through the enterprise · Long-term impact on the operations of the majority or the entire enterprise · System or certain functions/services are down · The failure causes a system to be inoperable to all users, total loss of functionality · Many or major files lost, large data corruption · A system or Network that is chronically out of service or continues to fail repeatedly · Critical business cycles (e.g., month/quarterly/year-end financial activity) · Critical business processes (e.g., payment runs, batch jobs) **Customer Impact Examples** · A whole department, multiple workgroups or departments
Priority Level 2 — High *Major Business Impact*	The Incident has affected a business process in such a way that business functions are severely degraded, or multiple users are, or a key customer is, affected and a workaround may be available but is not easily sustainable.	**Business & Financial Examples** · Medium visibility and moderate impact to revenue · Significant impact that may threat future productivity if issue is not resolved **System / Infrastructure Examples** · System usage is limited · Slow performance (network or application) and/or loss of functionality · Few files lost or corrupted **Customer Impact Examples** · Customers were unable to perform some portion of their job function · > 50% of department, office, site or user-base affected

Priority Level	Definitions	Examples
Priority Level 3 — Medium *Moderate Business Impact*	The Incident has affected a business process in such a way that certain functions are unavailable to End Users or a system or service is degraded and a workaround may be available.	**Business & Financial Examples** · Minimal immediate business or financial exposure **System / Infrastructure Examples** · Functionality is degraded but can be circumvented **Customer Impact Examples** · Customer was unable to perform a minor portion of their job · No business or financial impact · Scheduled or planned work and coordinated with customer
Priority Level 4 — Low *Minimal Business Impact*	The Incident has little impact on normal business processes and can be handled on a scheduled basis and a workaround is available.	· Peripheral problems (e.g., a network printer) · Preventive maintenance · Incident where a workaround exists within the known error database

SCHEDULE 5

FEES

TO

MASTER SERVICES AGREEMENT

BY AND BETWEEN

CITY OF SANTA CLARA

AND

UNISYS CORPORATION

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Schedule 5

Fees

1. Introduction

This Schedule 5 Fees is applicable as of the Effective Date of the Agreement and sets forth the Fees payable to Service Provider for provision of Services and the methodology to calculate adjustments to Fees, if any. This Schedule also includes the Termination Fees that are applicable to this Agreement.

2. Definitions

"Additional Resource Charge" ("ARC") means the amount payable, in addition to the Base Fees, for additional Resource Units consumed above Baseline Volumes, computed monthly on a per-Resource Unit basis applicable to all units consumed when the Dead Band is exceeded.

"Additional Services Fees" means Fees for specific discrete Services that are listed in Exhibit 1 to Schedule 5, and are part of the Base Fees.

"ARC Ceiling" means the maximum percentage of ARC unit changes that can occur before Parties agree to mutually review and may renegotiate such applicable Resource Unit items such as Base Fees, Baseline Volumes, ARC Rates and RRC Rates.

"Base Fee(s)" means the total Fees to Customer for Services for the then current Baseline Volumes and FTEs. Base Fees also includes Additional Services Fees as set forth in Exhibit 1 to Schedule 5.

"Baseline Volume" means the specific quantity of FTEs or Resource Units included within the Base Fees for a month.

"Contract Rate Card" means the hourly rate card that will apply for additional FTEs that Customer may decide to add to Services during the Term of this Agreement through the Change Control Procedures.

"Customer Optional Project Resources" means Fees identified in Exhibit 1 to Schedule 5 Fees (Optional Services worksheet) and which are included as part of the aggregate Customer Project Resources. Such Fees will be prorated and invoiced on an ongoing monthly basis, regardless of actual utilization. The Customer Optional Project Resources may be utilized by Customer during the Term at its discretion, consistent with the contractual procedures authorizing utilization of all other Customer Project Resources. To the extent the Customer Optional Project Resources are not utilized by Customer during the Term, applicable Fees will be credited to Customer by Service Provider in Service Provider's final invoice under the Agreement.

"Customer Project Resources" means the funds available for use at Customer's discretion identified in Section 3.6.1 (Customer Project Resources table).

"Dead Band" means a range of Baseline Volumes for each type of Resource Unit within which no adjustment of Base Fees is required.

"FTE" means a full time equivalent resource used in delivery Services and included in the Base Fees.

"Operational Utilization" means the percentage of time resources spend keeping the existing environment functioning (e.g. incident management, problem management).

"Original Contract" means the Master Service Agreement for Information Technology Outsourcing Services by and between City of Santa Clara and Unisys Corporation dated August 26, 2009, as amended from time to time.

"Original Contract Resource Unit Fees" means the Resource Unit Fees pursuant to the Original Contract.

"Pass-Through Order" means an order, signed by Customer, for Third Party product(s) and/or service(s) that are not Services, to which Service Provider may add mark-up or administrative fee in accordance with Section 5.3 of this Schedule 5 Fees. Pass-Through Orders may be placed for items such as specialized IT consulting services. Pass-Through Order procedures are further explained in Section 5.3.

"Project Utilization" means the percentage of time resources spend changing, upgrading or performing strategic planning for the environment.

"Reduced Resource Credit" ("RRC") means the reduction in the Base Fees when actual Resource Units consumption falls below Baseline Volumes computed monthly applicable to the units consumed below the lower threshold of the Dead Band, on a per-Resource Unit basis, and credited only when consumption falls below the lower threshold of the applicable Dead Band.

"Resource Units" refers to categories of resources, or particular kinds of resources (such as numbers of devices, FTEs, calls or other measurable items) used to determine Base Fees.

"RRC Floor" means the minimum percentage of RRC unit credits that can occur before Parties agree to mutually review and may renegotiate such applicable Resource Unit items such as Base Fees, Baseline Volumes, ARC Rates and RRC Rates.

"Transition Fees" means Fees paid during transition, as identified in Schedule 13 Section 5 or as an amortized cost component and included in the monthly invoice as set forth in Exhibit 1 to Schedule 5 Fees (Transition Fees worksheet).

3. Baselines and Base Fees

3.1 Baseline Volume and Baseline Volume Adjustments

The Baseline Volumes Resource Units as of the Effective Date of the Agreement are set forth in Exhibit 1 to Schedule 5.

3.1.1 Adjustment to Baseline Volume

During the Transition Period, Service Provider shall measure actual consumption of all Resource Units and recommend any changes to Baseline Volumes, if necessary, so that Baseline Volumes accurately reflect Customer's then-current consumption, but excluding any unusual, exceptional or non-recurring conditions. After completion of the Transition Period, this process shall be repeated during the final two (2) months of each Contract Year, beginning with the first Contract Year, with changes to be effective at the beginning of the next invoicing period of the succeeding Contract Year and implemented in accordance with the reconciliation process described below. Base Fees shall be adjusted accordingly, using applicable ARC, RRC or other adjustments described by this Schedule or the Agreement. If the Parties are unable to agree upon adjusted Baselines (and related adjustments to Base Fees) in a timely manner, the matter shall be referred to the governance committee and if they are unable to agree, then resolved, if necessary, in accordance with Section 21 of the Agreement (concerning disputes). Section 4 of this Schedule sets forth the methodology to adjust Baseline Volumes in the event of substantial changes to Baseline Volumes.

3.2 Base Fees and Base Fees Adjustments

Base Fees for Services are as provided in Exhibit 1 to Schedule 5 (Base Fees table) of this Schedule. Base Fees reflect consumption of chargeable Resource Units in accordance with the Baseline Volumes contained therein. Base Fees commence upon Service Commencement Date after successful completion of Transition related activities and completion of the final Transition Milestone for all Service Towers.

3.2.1 [Reserved]

3.2.2 COLA

Service Provider Contract Staff Labor Rates and Resource Unit Fees, as delineated in Exhibit 1 to this Schedule 5 will be adjusted annually for inflation (COLA: Cost of Living Adjustment) based on the Consumer Price Index, Urban Wage Earners and Clerical Workers (Current Series), Not Seasonally Adjusted, San Francisco-Oakland-San Jose, CA, provided by the Department of Labor Bureau of Labor Statistics. Service Provider Contract Staff Labor Rates will be adjusted at 100% of the applicable COLA. Resource Unit Fees will be adjusted at 88% of the applicable COLA. For avoidance of doubt, during the Term, COLA will be applicable only to Service Provider Contract Staff Labor Rates and Resource Unit Fees as described in this Section 3.2.2. The COLA adjustment will begin on July 1, 2018 and each subsequent Contract Year on July 1, based on the period ending December 31 of the previous year. Notwithstanding the above described COLA adjustments, in the event the City encounters budget constraints based on severe economic conditions, Service Provider agrees to discuss such COLA adjustments with the City in good faith.

3.3 Incremental Charges and Credits

After Service Commencement Date of Services, Customer shall pay Base Fees associated with such Services plus ARCs (if consumption of Resource Units exceeds the upper limit of the Dead Band) or minus RRCs (if consumption of Resource Units fall below the lower limit of the Dead Band). Dead Band, ARCs and RRCs shall be determined, reported and invoiced on a monthly basis.

3.3.1 Reporting and Payment of ARCs and RRCs

Within thirty (30) days following the end of each month, Base Fees for Services will be adjusted by Service Provider based upon (i) positive or negative differences between actual usage of Resource Units for the preceding month and (ii) then-current Baseline Volumes, (iii) multiplied by applicable ARCs and RRCs, provided, that there shall be no actual adjustment unless actual consumption falls outside the Dead Band. After calculation of all adjustments, Service Provider shall deliver to Customer, a statement in reasonable detail specifying all adjustments for that month, and explaining their calculation. If there has been a net overpayment by Customer, the amount of the overpayment shall be credited against the next succeeding Service Provider invoice(s) or paid by check when the Agreement expires or terminates. If there has been a net underpayment by Customer, the amount of the underpayment shall be added to the next succeeding Service Provider invoice(s) or paid by check when the Agreement expires or terminates. Customer agrees to pay the net amount due, if any, as provided in Section 11.3 of the Agreement after receipt of a correct Service Provider's invoice.

3.3.2 ARC Dead Band

The ARC Dead Band is expressed as a percentage amount and is set forth in the ARC Dead Band Table that is provided for each Resource Unit type for each relevant Service Tower. For the purposes hereof, "ARC Dead Band Percentage" means the percentage above the Baseline Fee for each applicable Resource Unit type within which ARCs will not apply, and above which ARCs will apply

3.3.3 ARC Dead Band Table

The following ARC Dead Band Table identifies the factors that are to be used in calculating ARCs for each Resource Unit type for each of the applicable Service Towers. The ARC Dead Band is calculated by multiplying the Baseline Fee by the sum of 1.00 plus the ARC Dead Band percentage.

Table 1. ARC Dead Band Table

	ARC Dead Band % of Baseline
Service Tower	
Enterprise Compute Services (i.e. data center and network)	10%
Service Desk Services	10%

3.3.4 Reduced Resource Credits (RRCs)

The RRC Dead Band is expressed as a percentage amount and is set forth in the RRC Dead Band Table that is provided for each applicable Service Tower. For the purposes hereof, the RRC Dead Band means the percentage below the Baseline Fee for each applicable Resource Unit type within which RRCs will not apply, and below which RRCs will apply.

3.3.5 RRC Dead Band Table

The following RRC Dead Band Table identifies the factors that are to be used in calculating RRCs for each Resource Unit type for each of the applicable Service Towers. The RRC Dead Band is calculated by multiplying the Baseline Fee by the sum of 1.00 less the RRC Dead Band percentage.

Table 2. RRC Dead Band Table

	RRC Dead Band % of Baseline
Service Tower	
Enterprise Compute Services (i.e. data center and network)	10%
Service Desk Services	10%

3.3.6 Credits for non-availability of FTEs

Customer shall not pay corresponding prorated Fees for vacancies or absences in excess of agreed schedule of FTEs, unless prior agreement has been reached for adequate backfill for such FTEs. The agreed schedule of FTEs is as below.

a. The base hours for calculating credits for non-availability of an FTE is 2080 hours per year.

b. Total hours of non-training absences for any fulltime FTE shall be 248 hours. This number is based on 13 Customer holidays, 13 vacation days and 5 sick days. If the number of Customer holidays is decreased from 13 days, the time allocated for Customer holidays will be added to Service Provider vacation days. For the avoidance of doubt, the total working hours per FTE include time for FTEs to perform administrative activities [e.g. corporate email, required corporate training (e.g. ethics, security), and performance evaluations].

c. The total hours of non-training absences for any part-time FTE shall be reduced proportionately per base hours specified in (a).

d. Total training hours shall be 40 hours per year unless otherwise agreed to by Customer. For the purpose of this Section 3.3.6, training hours refers to training that enhances that job skills and capabilities of the FTE in providing the Services. For the avoidance of doubt, training hours shall not include administrative or other training not directly related to providing the Services.

In the event a credit is due to Customer pursuant to this Section, Service Provider will credit the prorated Fees for the applicable FTE in the upcoming monthly invoice.

Customer may within thirty (30) days from Effective Date identify specific FTEs which will be removed from on-boarding at Service Commencement and corresponding credits will be applied to the Base Fees, as identified in Schedule 5 Section 3.3.6. Customer removed FTEs shall be added to the Services through the Change Control Procedures.

3.4 [Reserved]

3.5 [Reserved]

3.6 Project Resources

3.6.1 Customer Project Resources

Resources used for Customer Project Resources are on a pay when used basis and invoiced on the next monthly invoice, with the exception of Customer Optional Project Resources. Customer retains the right to change or remove Customer Project Resources at its sole discretion during the Term of the Agreement, with the exception of the Customer Optional Project Resources. Customer Project Resources identified as of the Effective Date are as follows: ().

Customer Project Resources

	Year 1	Year 2	Year 3	Year 4
Customer Project Resources	**$218,418**	**$1,313,544**	**$1,637590**	**$1,991,758**

4. ARCs Ceiling and RRCs Floor

ARC Ceilings and RRC Floors are established to provide a means to evaluate and adjust pricing if there are dramatic shifts in Resource Unit usage volumes over a sustained period. In the event that the Resource Unit usage is greater than the ARC Ceiling or less than the RRC Floor for a period of two (2) consecutive months, the Parties agree to mutually review and may renegotiate such applicable Resource Unit items such as Base Fees, Baseline Volumes, ARC Rates and RRC Rates.

The following ARC Ceiling and RRC Floor identifies the factors that are to be used in calculating whether Resource Unit usage has exceeded an ARC Ceiling or RRC Floor. The ARC Ceiling is to be calculated by multiplying the Baseline Volume of the Resource Unit by the sum of 1.00 plus the ARC Ceiling percentage where ARC Ceiling percentage will be 25% of the Baseline Volume for the Resource Unit. The RRC Floor is to be calculated by multiplying the Baseline Volume of the Resource Unit by the sum of 1.00 less the RRC Floor percentage where RRC Floor percentage will be 25% of the Baseline Volume for the Resource Unit.

Immediately following the second consecutive month that a Resource Unit usage exceeds the ARC Ceiling or falls below the RRC Floor, the Parties agree to negotiate in good faith an equitable adjustment to such Resource Unit items within thirty (30) days. Any adjustments to pricing (ARC, RRC, Base Fees, Baseline Volumes, ARC Ceilings, RRC Floors, and Dead Band) shall become effective on the date when the Parties execute an amendment to reflect it. Notwithstanding the foregoing, until a mutual agreement is reached by the Parties on making adjustments to the Resource Unit items referenced above, the then-existing ARCs and RRCs will continue in effect.

5. Expenses and Fees

5.1 Retained Expenses

Customer agrees to pay the expenses listed in Schedule 30 Financial Responsibility Matrix identified as Customer's responsibility, and as otherwise specified by the Agreement or agreed to from time to time in writing.

5.2 Travel and Living Expenses

Service Provider will seek to limit travel costs by utilizing local or regional resources when possible and will make efforts to limit travel to specialized resources whenever feasible. Customer will reimburse actual travel and living expenses for Contract Staff identified in Schedule 30 Financial Responsibility Matrix with prior written consent from Customer, in connection with the performance of Services. Travel expenses as applicable for the preceding month will be included in the monthly invoice. Invoices shall describe reimbursable expenses in reasonable detail. Service Provider shall provide backup documentation including receipts for all reimbursable travel and living expenses. Travel, living and other expenses shall comply with Customer's written policies.

5.3 Pass-Through Orders

A Pass-Through Order consists of third party products or services, or both, which shall be provided on a pass-through basis, (individually a "Third Party Product" or a "Third Party Service" and collectively "Third Party Items."). Pass-Through Orders may not be placed for items included in the Services. Pass-Through Orders may be placed for items such as specialized IT consulting services. The total value of all Pass-Through Orders in a Contract Year, on which Service Provider will not add any mark-up or administrative fees, shall not exceed $90,000.00 USD, unless otherwise agreed by Service Provider, prorated for Contract Years of less than 12 months. If agreed by Service Provider, Pass-Through Orders accepted in excess of the annual Contract Year limit will be subject to a 5% administrative fee. Pass Though Orders shall not include any Pass-Through Expenses identified in Schedule 5, Exhibit 1 at the time of contract signing.

These Third Party Item(s) are included in the Pass-Through Order solely as a convenience to Customer to acquire the Third Party Item(s). By signing the Pass-Through Order, Customer authorizes Service Provider to order each Third Party Item for provision to the Customer by the applicable vendor. Service Provider has alliances with certain third party product and service vendors. As part of any such alliance relationship, Service Provider may be entitled to receive from these vendors certain fees, discounts, or other financial benefits. Customer acknowledges that Service Provider may receive these benefits for the Third Party Item(s).

The Third Party Item(s) shall be governed solely by the standard terms, conditions and service descriptions of their vendor. Service Provider will invoice Customer for each Third Party Item at the applicable price in the Pass-Through Order. Service Provider shall invoice Customer for each Third Party Product on shipment and for each Third Party Service in advance of the service. The undisputed invoices will be due and payable to Service Provider upon receipt of the Third Party Items. Service Provider shall pay the vendor after Service Provider receives Customer's payment. Vendor must agree in advance of Pass-Through Order placement to be paid after Service Provider is paid by Customer and agree that Customer is responsible for any dispute concerning a Third Party Item(s). Customer agrees that Service Provider has no responsibility for the Third Party Items, which Service Provider provides on a pass-through, AS IS basis, and Customer agrees to look solely to the applicable vendor for each Third Party Item.

5.4 Overtime and Weekend Pay

Customer agrees to pay overtime rates based on industry standards only for non-exempt Service Provider employees performing project work on an hourly basis for Contract Staff work in excess of standard business hours of the Customer. The standard business hours of Customer are 7:00 am – 6:00 pm Pacific Time, Monday through Friday. Overtime pay may be claimed by Service Provider only with written consent from Customer in advance of anticipated overtime hours.

5.5 [Reserved]

5.6 Contract Rate Card

Contract Rate Card is set forth in Exhibit 1 to Schedule 5 (Rate Card worksheet).

6. Transition Fees

Customer agrees to pay charges for Transition Services as set forth in the "Transition Fees" worksheet contained in Exhibit 1 to Schedule 5.

6.1 Corrective Assessments

Customer has the right to impose Corrective Assessments for Critical Transition Milestones for delays beyond the deadlines for such Critical Transition Milestones set forth in Schedule 13 Transition Services and Deliverables. Schedule 13 Section 8 identifies the Corrective Assessment for each Critical Transition Milestone and the corresponding completion dates for the Critical Transition Milestones.

7. Estimated Allocation of Project Hours per FTE

Onsite FTEs shall perform both Project Utilization and Operational Utilization based work. The estimated percentage of time allocated for Project Utilization work for each onsite FTE is provided in Exhibit 1 to Schedule 5. If the actual percentage of time performing project work per quarter is materially lower than the estimated percentage of time allocated for project work, Service Provider shall justify the variation in writing to the Customer. If the Customer is not satisfied that the variations is justified, the Parties shall resolve in accordance with Section 21 of the Agreement.

8. FTE Role Descriptions

Job descriptions for FTEs are provided in the attached file.

Schedule 5 Fees - FTE Role Descriptior

9. Termination for Convenience Fees

Customer agrees to pay Termination for Convenience set forth in Exhibit 1 to Schedule 5, in accordance with Section 15.4 of the Agreement.

10. Original Contract Resource Unit Fees

During the period between the Effective Date hereto and the completion of the Transition Services for the Services or for a particular Service hereunder, and notwithstanding the expiration of the Original Contract on June 30, 2017, the Resource Unit Fees as contemplated and delineated in the Original Contract will remain in force and will be invoiced by Service Provider to Customer. For avoidance of doubt, all other Fees will be invoiced pursuant to this Agreement.

UNISYS

Position: **Contract Executive & PMO Lead**
Supervisor: **Regional Service Delivery Director**

Summary:
The Contract Executive and PMO Lead will be the Service Provider's primary point of contact for all matters relating to City of Santa Clara program, including steady state service integration, performance and demand management across all in scope Service Towers and Third Parties as applicable. This includes managing and coordinating all steady state Service Provider resources, subcontractors and Third Parties across all of the Service Towers to ensure optimal end to end service delivery, careful and timely management of Service Requests, accurate and complete reporting, accurate invoicing, and comprehensive escalation and issue management.

This role directs Unisys staff members that will include the Applications Program Manager, Technical Lead, Infrastructure Architect, Information Security Officer, Business Analysts and Project Managers within the PMO. This position will require 10 to 15 years of management experience in an Information Technology environment supporting at least 1,000 user and must possess excellent communication and resource optimization experience along with strong technology experience in various environments. Experience with Public Sector and Local Municipalities is expected and should include Information Technology management such as application development, application support, data center operations, end user operations and project management.

Qualifications:
- Masters or Bachelor's degree or higher in CS, CIS, MIS or equivalent
- Be knowledgeable of the Customer's business strategy, objectives, processes and operations (including Customer departments)
- Experienced at running services equal in size and scope to those of the City
- Be knowledgeable about established project management standards and processes in the Customer environment
- Be experienced in overseeing a portfolio of projects and managing project managers to ensure projects remain on time and on budget
- Be experienced in managing and overseeing project proposals
- Be vested by Service Provider with all necessary authority to act for Service Provider in connection with all aspects of the Services pertaining to the PMO function
- Possess a Project Management Professional (PMP) certification from the Project Management Institute (PMI)
- Municipality applications management experience preferred

Skills:
- In-depth knowledge of overall Information Technology application evaluation, development, implementation, testing and production support.
- Previous working experience in project management implementing IT applications.
- Working knowledge of data processing concepts
- Familiarity with various operating systems and industry-accepted standards and client/server application computing environments.

Responsibilities:
- Be the primary onsite contact point for all matters relating to cross Service Tower, steady state service delivery including ongoing services supply/demand alignment and performance management
- Be the primary Customer contact for the Cross Functional Statement of Work scope of services and be vested by Service Provider with all necessary authority to act for Service Provider in connection with all aspects of the Services pertaining to the Cross Functional Statement of Work
- Primary point of contact for all matters relating to governance and relationship management including financial, performance and contract management
- Responsible for directing all of Service Provider's activities and shall be vested by Service Provider with all necessary authority to act for Service Provider in connection with all aspects of the Agreement

- Have experience with coordinating service delivery across multiple Service Towers and Third Parties in support of end to end IT systems
- Knowledgeable about the Services transition, Service Provider Service Tower services, and be knowledgeable about Service Provider subcontractor and Third Party services and how all of these integrate to provide services for the Customer
- Be experienced at running information technology systems, networks, help desks and end user support, and applications functions of a size and scope minimally equal in size and scope to those of the Customer
- Responsible for driving each Services Tower to work seamlessly across all Service Towers and resolving any escalated issues that cannot be resolved at the Service Tower level
- Participate in governance meetings in Schedule 17, as relevant
- Review and approve all PMO deliverables prior to submission to the Customer

UNISYS

Position: **Applications Program Manager**
Supervisor: **Contract Executive**

Summary:
The Applications Program Manager supervises Contract Staff members including Application Analysts, Business Analysts, and Web Designers and Developers. This position requires 10 to 15 years of management experience in an Information Technology environment supporting at least 1,000 users and must possess excellent communication skills and resource optimization experience along with strong technical experience in various environments. The role is also responsible for evaluating and recommending solutions by working with all Customer groups impacted. Experience with Public Sector and Local Municipalities is expected along with deep experience with key applications that commonly support these customers. Experience with Agile and DevOps methodologies is an expectation and a plus.

The Applications Program Manager has overall responsibility for management of the Portfolio (including strategy and Roadmap), the Plan of Record, and portfolio definition and strategic roadmaps as well as leadership of the Applications Services team.

Qualifications:
- Master or Bachelor's degree or higher in CS, CIS, MIS or equivalent
- At least 15 years' experience in IT application management including managing and motivating technical personnel.
- Be knowledgeable of the Customer's business strategy, objectives, processes and operations (including Customer departments)
- Be knowledgeable about the assigned Service Tower(s), knowledgeable about other Service Provider Service Tower services that impact their assigned area(s), knowledgeable about Service Provider subcontractor and Third Party services and how all of these integrate to provide Services for the Customer
- Previous working experience in project management implementing IT applications.
- Be experienced at running information technology systems and networks of a size and scope minimally equal in size and scope to those of the Customer

Skills:
- Working with business leaders to develop and align application strategies to business objectives
- Ability to anticipate the direction of future application strategy and be proactive in identifying tactics to deliver.
- Ability to translate the application strategy into plans and actions
- In-depth knowledge of Information Technology application evaluation, development, implementation, testing and production support.
- In-Depth knowledge of the software development life cycle.
- Working knowledge of data processing concepts
- Familiarity with various operating systems and industry-accepted standards, client/server application computing environments and relational database concepts.
- Relevant certifications for the skills/application/service area/domain
- Agile and DevOps Methodologies

Responsibilities:
- Be the primary onsite contact point for all matters relating to day-to-day service delivery including ongoing services supply/demand alignment and Service Tower performance management
- Drive the delivery of seamless cross Service Tower Services to the Customer
- Be vested by Service Provider with all necessary authority to act for Service Provider in connection with all aspects of the Services pertaining to their Service Tower(s)
- Take ownership of the day-to-day Service Tower(s) operational relationships between Service Provider information technology service delivery and the Customer

- Manage and coordinate the appropriate resources to ensure optimal Service Tower service delivery and ensure that all issues raised are resolved in accordance with the applicable defined Customer and/or Service Tower procedures and Service Levels

UNISYS

Position: **Infrastructure Program Manager**
Supervisor: **Contract Executive**

Summary:
The Infrastructure Program Manager has overall responsibility for Infrastructure Services (Data Center, Network and Cloud), managing and overseeing all people, processes and tools required to deliver all services both remotely and onsite in these areas. This position is also tasked with making recommendations to IT Governance for enhancements to Service Provider's services or Service portfolio based on operational observations and works under direction of a senor architect for complex projects. This position supports and administers data retention/recovery and production job schedules and performs continuous analysis of production jobs, backup processes, system monitoring, and server availability. The role is also responsible for evaluating and recommending solutions by working with all Customer groups impacted. This position will require 10 to 15 years of management experience in an Information Technology environment supporting at least 1,000 users and must possess excellent communication and resource optimization experience along with strong technical experience in a Windows environment. Experience with Public Sector and Local Municipalities is expected.

Qualifications:
- Bachelor's degree or higher in CS, CIS, MIS or equivalent
- In-depth knowledge and experience with at least 10 years Enterprise Systems Management experience including design, testing, and implementation.
- Three years minimum Data Center experience and one year minimum Data Center management experience.
- 5 years' experience in developing, enhancing and supporting event correlation.
- Familiarity with database and infrastructure software design, implementation, maintenance, upgrade and operations technique.
- Knowledge of data processing and network/communication concepts, products and protocols
- Experience in project management including managing and motivating technical personnel.
- Possesses strong product, technology, and industry knowledge.
- Be knowledgeable of the Customer's business strategy, objectives, processes and operations (including Customer departments)
- Be knowledgeable about the assigned Service Tower(s), knowledgeable about other Service Provider Service Tower services that impact their assigned area(s), knowledgeable about Service Provider subcontractor and Third Party services and how all of these integrate to provide Services for the Customer
- Be experienced at running information technology systems and networks of a size and scope minimally equal in size and scope to those of the Customer

Skills:
- Relevant certifications in Infrastructure Services
- Working knowledge of IT operational procedures and processes.
- Experience performing storage and enterprise platform systems design, implementation, troubleshooting, and management across heterogeneous environments.
- Familiarity with various operating systems and industry-accepted standards and client/server application computing environments.
- Strong working knowledge of storage technologies (i.e., SAN, NAS, iSCSI, Fiber Channel, Enterprise Storage Arrays, Data Replication, HSM). Administration of multiple UNIX environments, hardware and operating systems.
- Experience with design (blueprinting) and developing conceptual, logical, and technical architecture models.

Responsibilities:
- Be the primary onsite contact point for all matters relating to day-to-day service delivery including ongoing services supply/demand alignment and Service Tower performance management
- Drive the delivery of seamless cross Service Tower Services to the Customer

- Be vested by Service Provider with all necessary authority to act for Service Provider in connection with all aspects of the Services pertaining to their Service Tower(s)
- Take ownership of the day-to-day Service Tower(s) operational relationships between Service Provider information technology service delivery and the Customer
- Manage and coordinate the appropriate resources to ensure optimal Service Tower service delivery and ensure that all issues raised are resolved in accordance with the applicable defined Customer and/or Service Tower procedures and Service Levels

UNISYS

Position: **End-User Services Manager**
Supervisor: **Contract Executive**

Summary:
The End-User Services Manager has overall responsibility for the delivery of services provided by the onsite Field Technicians and Endpoint Engineers which includes managing and overseeing all people, processes and tools required to deliver all services for the End User Tower. This position is also tasked with making recommendations to IT Governance for enhancements to Service Provider's services or Service portfolio based on operational observations and works under direction of a senor architect for complex projects. This position supports the resolution of IT incidents and requests for employees of the City and the development and management of the City's images across desktops, laptops and mobile devices. The role is also responsible for evaluating and recommending solutions by working with all Customer groups impacted. This position will require 8 to 10 years of management experience in an Information Technology environment supporting at least 1,000 users and must possess excellent communication and resource optimization experience along with strong technical experience in a Windows environment. Experience with Public Sector and Local Municipalities is expected.

Qualifications:
- Bachelor's degree or higher in CS, CIS, MIS or equivalent
- Management experience (5+ Years) leading teams in large scale technical support initiatives.
- 5 years minimum End User Services experience.
- Experience in Group Policy Object (GPO) Administration required.
- Experience in mobile device and applications support (MDM), SCCM and Office 365
- Experience with Image development and Management across multiple device platform (Windows, IOS, Android)
- Expertise in Windows Deployment processes
- Experience in project management including managing and motivating technical personnel.
- Experienced at running information technology systems and networks of a size and scope minimally equal in size and scope to those of the Customer (1,000+ end users)

Skills:
- Relevant certifications in End User Services
- Working knowledge of IT operational procedures and processes.
- Possesses strong product, technology, and industry knowledge.
- Ability to review data, analyze and make recommendations to drive continuous improvement
- Excellent interpersonal and coaching skills with above average oral and written communication skills.
- One or more of the following professional certifications are highly desired.
    - Microsoft Certified Master (MCM)
    - Microsoft Certified Solutions Master (MCSM)
    - Microsoft Certified Solutions Expert (MCSE)
    - Microsoft Certified Technology Specialist in Windows 7 Deployment (MCTS)
    - MCSE: Desktop Infrastructure certification
    - Project Management Professional (PMP)

Responsibilities:
- Be knowledgeable of the Customer's business strategy, objectives, processes and operations (including Customer departments)
- Be knowledgeable about the assigned Service Tower(s), knowledgeable about other Service Provider Service Tower services that impact their assigned area(s), knowledgeable about Service Provider subcontractor and Third Party services and how all of these integrate to provide Services for the Customer
- Be the primary onsite contact point for all matters relating to day-to-day service delivery including ongoing services supply/demand alignment and Service Tower performance management
- Drive the delivery of seamless cross Service Tower Services to the Customer
- Be vested by Service Provider with all necessary authority to act for Service Provider in connection with all aspects of the Services pertaining to their Service Tower(s)

- Take ownership of the day-to-day Service Tower(s) operational relationships between Service Provider information technology service delivery and the Customer
- Manage and coordinate the appropriate resources to ensure optimal Service Tower service delivery and ensure that all issues raised are resolved in accordance with the applicable defined Customer and/or Service Tower procedures and Service Levels

UNISYS

Position: **Enterprise Architect**
Supervisor: **Account Delivery Manager**

Summary:
The Enterprise Architect shall work with Customer to build a holistic view of the Customer's strategy, IT processes, data, and information technology assets.

The Enterprise Architect is responsible for the Customer's Infrastructure roadmap, aligning the infrastructure roadmap to the requirements of the Service Portfolio and leading Infrastructure upgrade projects from both a technical and strategic perspective. This position will require eight (8) years of technical systems architecture design and management experience.

Qualifications:
- Bachelor's degree or higher in CS, CIS, MIS or equivalent
- Knowledgeable of the Customer's business strategy, objectives, processes and operations
- knowledgeable of the evolving IT marketplace, including emerging IT trends, technologies and solutions
- Keep Customer's IT architecture flexible and responsive to new IT opportunities
- Possess broad knowledge of hardware, software, application, and systems engineering
- Possess knowledge of IT governance and IT operations
- Possess the ability to explain technical and complex issues to Customer in ways that non-technical persons can understand
- Possess project and program management planning and organizational skills

Skills:
- In-depth knowledge of Information Technology application evaluation, development, implementation, testing and production support.
- Possesses strong product, technology, and industry knowledge.
- Knowledge with appropriate networks, products and protocols.
- Experience performing storage and enterprise platform systems design, implementation, troubleshooting, and management across heterogeneous environments.
- Strong working knowledge of storage technologies (i.e., SAN, NAS, iSCSI, Fiber Channel, Enterprise Storage Arrays, Data Replication, HSM). Administration of multiple UNIX environments, hardware and operating systems. Experience with design (blueprinting) and developing conceptual, logical, and technical architecture models.
- Strong understanding of the Microsoft stack (Active Directory, Exchange, Skype, SCCM, SharePoint)
- Basic understanding of networks (switches Layer 2 and 3/routers)
- ITIL Certification
- Understanding of security (Defense in Depth)
- Applications experience, and understanding of stack/building blocks in the infrastructure
- The ability to talk and breakdown information down for a "C" level executive to understand
- The ability to lead people of various levels to technical expertise

UNISYS

Position: **Information Security Officer**
Supervisor: **Contract Executive**

Summary:
The Information Security Officer shall have overall responsibility for all information security-related aspects of the Services, including coordination of information security efforts across all Service Towers
.

Qualifications:

- Bachelor's degree or higher in CS, CIS, MIS or equivalent
- Knowledgeable of the Customer's business strategy, objectives, processes and operations
- knowledgeable of the evolving IT marketplace, including emerging IT trends, technologies and solutions
- Keep Customer's IT architecture flexible and responsive to new IT opportunities
- Possess broad knowledge of hardware, software, application, and systems engineering
- Possess knowledge of IT governance and IT operations
- Possess the ability to explain technical and complex issues to Customer in ways that non-technical persons can understand
- Possess project and program management planning and organizational skills

Skills:

- In-depth knowledge of Information Technology application evaluation, development, implementation, testing and production support.
- Possesses strong product, technology, and industry knowledge.
- Knowledge with appropriate networks, products and protocols.
- Experience performing storage and enterprise platform systems design, implementation, troubleshooting, and management across heterogeneous environments.
- Strong working knowledge of storage technologies (i.e., SAN, NAS, iSCSI, Fiber Channel, Enterprise Storage Arrays, Data Replication, HSM). Administration of multiple UNIX environments, hardware and operating systems. Experience with design (blueprinting) and developing conceptual, logical, and technical architecture models.

UNISYS

Position: **Field Technician (Level 1 and Level 2)**
Supervisor: **End-User Services Manager**

Summary:
The Field Technicians 1 and 2 are primarily responsible for providing Tier 2 support for desktop hardware and deskside issues, Deskside Software Support, and troubleshooting of assigned Service Desk tickets through resolution to client satisfaction. Additional responsibilities include IMACD and Smart Hands support for the Data Center and infrastructure as well as backup of Service Desk activities detailed in the Service Desk SOW Project responsibility for projects requiring technician assistance. This position requires a self-motivated, flexible and dependable team player with the ability to adapt to flexible work hours.

Qualifications:
- High School Graduate and minimum of 2-3 years related experience for Level 1 Technicians
- High School Graduate and minimum of 3-5 years related experience for Level 2 Technicians
- Bachelor's degree preferred.
- Windows, MS Office, GroupWise, Internet Explorer, LAN, WAN and basic networking protocols and standards.
- A+ certification
- OEM certifications (Dell, Compaq, HP, etc.), other certifications and/or training as required including completion of CIR5 Core Training
- Desktop Support in a Municipality a plus.

Skills:
- In-depth knowledge of Information Technology application evaluation, development, implementation, testing and production support.
- General knowledge of desktop hardware and software including working knowledge of Microsoft applications
- Basic troubleshooting and repair ability
- Ability to test PC, servers and associated peripherals and/or low end document processor products
- Ability to resolve very basic/non-complex problems as required.
- Basic mechanical skills and understanding of electro static discharge (ESD) procedures

UNISYS

Position: **Business Analyst I**
Supervisor: **Applications Program Manager**

Summary:
The Business Analyst roles will be aligned to and work with key departments such Public Safety, Utility Billing, HR, Finance, Admin and Land Management. The level (I, II or III) of the Analyst will be determined by needs and scope of the supported departments. One example role is working with the Business Analyst III supporting and enhancing the Utility Billing system and its related applications. The role would include application testing, business process Improvement, vendor coordination

The Business Analyst is responsible for assisting other business analysts in developing the functional requirements, testing, training, implementation, and support artifacts across the Customer application portfolio in collaboration with the business domains and business subject matter experts. Assist in creating and maintaining the strategic partnership between business stakeholders and Customer IT delivery.

Qualifications:
- BA/BS in Accounting, Finance, Business Administration, Marketing, Information Systems Management, Computer Science or related field, or an equivalent combination of education and/or experience
- 3-5 years of related work experience with progressively increasing responsibility
- Basic knowledge of technologies relevant to the engagement
- Advanced proficiency using various Microsoft Office desktop products
- Strong analytical skills, excellent communication skills (written and oral)
- Demonstrated ability in IT analysis methodologies (e.g., process flow definition, data flow diagramming, etc.)
- Demonstrated ability to work effectively with all levels of staff, customers and other IT personnel
- Ability to perform cost-benefit analysis, trending, forecasting, and financial analysis
- Ability to lead effective meetings that are tailored to the audience

Skills:
- Relevant certifications for the domain
- Working knowledge of IT operational procedures and processes.
- Experience in project management
- Possesses technical background in required applications and tools.
- Experience in gathering user requirements and production of formal business requirements and functional specifications

Responsibilities:
- Assembles, analyzes, and represents customer business requirements.
- Collaborate with internal and external customers to elicit their business concerns and develop workable solutions
- Performs cost estimating, cost benefits analysis, and ROI (return on investments). Develops high level implementation plans.
- Participate in planning initiatives, feasibility studies, cost/benefit analyses, and new applications requirements
- Act as the liaison between the Customer business units and the IT support staff responsible for coordination of activities with application analysts and support staff.
- Work with customers to prepare test scenarios and data
- Oversee user acceptance testing, develop user guides, provide user training, and support the user in the development of work processes
- Understand, document and manage business, functional, and data flow requirements

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- Possess a thorough understanding of data, sources of data, and relationships of data in order to generate meaningful information in support of the supported Customers or Departments
- Provide day-to-day operations support, research and resolve problems associated with application transactions or processing.
- Possess a thorough understanding of data, sources of data, and relationships of data in order to generate meaningful information in support of the supported Customers or Departments
- Performs design steps including requirements analysis, performance analysis, benchmarking and bandwidth analysis, and detailed design of the system.
- Confirms and prioritizes project plans
- Collaborates with other to ensure plans and identified solutions meet Customer needs and expectations.
- Coordinates the efforts of various operations resources assigned to projects to provide consistent implementations in keeping with short and long range plans

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Position: **Business Analyst II**
Supervisor: **Applications Program Manager**

Summary:
The Business Analyst roles will be aligned to and work with key departments such Public Safety, Utility Billing, HR, Finance, Admin and Land Management. The level (I, II or III) of the Analyst will be determined by needs and scope of the supported departments. An example role would be supporting and enhancing the Land Management Systems. Application testing, business process improvement, vendor management. Coordination between IT and Community Development, Water & Sewer, and other departments that utilize the Land Management, City Infrastructure Work Order systems, and GIS applications.

Qualifications:
- BA/BS in Accounting, Finance, Business Administration, Marketing, Information Systems Management, Computer Science or related field, or an equivalent combination of education and/or experience
- 4 to 6 years of related work experience with progressively increasing responsibility
- Advanced knowledge of technologies relevant to the engagement
- Advanced knowledge of SDLC methodology and UML
- Advanced analytical, project planning, negotiating, interpersonal, and communication skills (written and oral)
- Ability to perform cost-benefit analysis, trending, forecasting, and financial analysis
- Advanced proficiency using various Microsoft Office products

Skills:
- Relevant certifications for the domain
- Working knowledge of IT operational procedures and processes.
- Experience in project management
- Possesses technical background in required applications and tools.
- Experience in gathering user requirements and production of formal business requirements and functional specifications

Responsibilities:
- All responsibilities associated with Business Analyst – Level I
- Participate in the creation of a Key Performance Indicators and the documentation of their supporting business requirements, data models, calculation rules, and metadata
- Lead system feasibility studies, cost/benefit analyses, and new systems requirements.
- Gather and drive stakeholder requirements and product vision through the planning, analysis, development, and testing phases
- Translate stakeholder requirements into various documentation deliverables such as functional specifications, use cases, workflow/process diagrams, and data flow/data model diagrams
- Provide data and analyses in a timely manner, and verify the accuracy of data analyses produced by self or others
- Creation of test plans
- Ability to manage small projects an initiatives.
- Vendor management

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Position: **Business Analyst III**
Supervisor: **Applications Program Manager**

Summary:
The Business Analyst roles will be aligned to and work with key departments such Public Safety, Utility Billing, HR, Finance, Admin and Land Management. The level (I, II or III) of the Analyst will be determined by needs and scope of the supported departments. Examples for this role include supporting and enhancing the Utility Billing system and its related applications or supporting and enhancing the Public Safety departments and their related applications. Both roles would include application testing, business process improvement, vendor management.

Qualifications:
- BA/BS in Accounting, Finance, Business Administration, Marketing, Information Systems Management, Computer Science or related field, or an equivalent combination of education and/or experience
- 6 to 8 years of work experience with progressively increasing responsibility
- Advanced knowledge of technologies relevant to the engagement
- Advanced knowledge of SDLC methodology and UML
- Advanced analytical, project planning, negotiating, interpersonal, and communication skills (written and oral)
- Ability to perform cost-benefit analysis, trending, forecasting, and financial analysis
- Advanced proficiency using various Microsoft Office products

Skills:
- Relevant experience and or certifications for the domain (for example: Public Safety or Utilities)
- Working knowledge of IT operational procedures and processes.
- Experience in business analysis and application project management including managing and motivating technical personnel.
- Possesses technical background in required applications and tools.
- Experience with design (blueprinting) and developing conceptual, logical, and technical architecture models.

Responsibilities:
- All responsibilities associated with Business Analyst – Level II
- Function as the subject matter expert for the assigned area of expertise including awareness and deep knowledge of critical applications for that domain
- Lead multiple projects and trains and/or mentors other team members, peers and clients as appropriate
- Investigate complex strategic business issues, researching and identifying inventive solutions
- Collaborate with executive stakeholders to elicit their business concerns and develop workable solutions
- Lead the creation of a catalog of Key Performance Indicators and the documentation of their supporting business requirements, data models, calculation rules, and metadata
- Inform technical architect and project manager of any issues that may affect other areas of the project
- Complete all appropriate documentation required by vendors, deployment team, and operation support team that will maintain the Application

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Position: **Application Systems Analyst I**
Supervisor: **Applications Program Manager**

Summary:
The Application Analyst I is primarily responsible for providing subject matter expertise to support, manage, and enhance the applications in their designated areas. This role is seen as an entry level role in terms of experience and depth of domain expertise but is capable of working under the direction of leadership in the support of critical applications in their domain area. These areas might include areas such as Web, Digital, and Utility Billing as examples.

Qualifications:
- Bachelor's degree or higher in CS, CIS, MIS or equivalent.
- Domain area expertise including applications and infrastructure
- 3 to 5 years' experience working as an application analyst
- Microsoft Office
- Knowledge of commonly used concepts, practices, and procedures within the domain area
- Understanding of client server technologies and relational database concepts
- Knowledge of SDLC methodology.

Responsibilities:
- Typically works under the direction of senior application analysts (II or III)
- Act as a technical expert in relation to their domain area. Respond to Customer Service Requests as required.
- Receive Service Requests relating to fixes, fails, and proposed system changes. Perform initial troubleshooting and support identification of root cause of Incidents. Escalate Incidents as appropriate or to other third party vendor as required. Follow through on processing Incidents and drive resolution. Produce timely Incident reports documenting system downtime.
- Receive report requests, analyze business requirements, obtain new report authorization, provide data analysis, and develop and publish reports for End User operations.
- Provide data analysis for ad hoc report requests.
- Troubleshoot problems with scheduled application processes (data extract, scripts, load programs etc).
- Provide spot checking for data quality and integrity. Report potential issues to Business Analysts or Departments as necessary for further investigation.
- Follow change control procedures.
- Develop and maintain technical and operational procedure and work instruction documentation.
- Act as a liaison between the Customer and other third party vendors. Create and track Service Requests from inception to completion. Create and track enhancement requests from inception to completion, create test cases for enhancements, and coordinate and conduct user acceptance testing.
- Consult on data processing and data structures to support ongoing operations and enhancements for their domain area
- Coordinate with other service towers to ensure application technical requirements are met.
- Coordinate the implementation of application suite enhancements with the Customer business units and third party vendors.

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Position: **Application Systems Analyst II**
Supervisor: **Applications Program Manager**

Summary:
The Application Analyst II is primarily responsible for providing subject matter expertise to support, manage, and enhance the applications in their designated areas. These area might include UMIS, Web/Digital, Public Safety (Police) and FHRMS.

Qualifications:
- Bachelor's degree or higher in CS, CIS, MIS or equivalent.
- Domain area expertise including applications and infrastructure
- 4 to 6 years' experience working as an application analyst
- Microsoft Office
- Knowledge of commonly used concepts, practices, and procedures within the domain area
- Understanding of client server technologies and relational database concepts
- Advanced knowledge of SDLC methodology.

Responsibilities:
- Able to work independently with some direction from Applications Program Manager
- Able to effectively understand department strategies and translate those into roadmaps that drive business outcomes
- Act as a technical expert in relation to their domain area. Respond to Customer Service Requests as required.
- Receive Service Requests relating to fixes, fails, and proposed system changes. Perform initial troubleshooting and support identification of root cause of Incidents. Escalate Incidents as appropriate or to other third party vendor as required. Follow through on processing Incidents and drive resolution. Produce timely Incident reports documenting system downtime.
- Receive report requests, analyze business requirements, obtain new report authorization, provide data analysis, and develop and publish reports for End User operations.
- Provide data analysis for ad hoc report requests.
- Troubleshoot problems with scheduled application processes (data extract, scripts, load programs etc).
- Provide spot checking for data quality and integrity. Report potential issues to Business Analysts or Departments as necessary for further investigation.
- Follow change control procedures.
- Develop and maintain technical and operational procedure and work instruction documentation.
- Act as a liaison between the Customer and other third party vendors. Create and track Service Requests from inception to completion. Create and track enhancement requests from inception to completion, create test cases for enhancements, and coordinate and conduct user acceptance testing.
- Consult on data processing and data structures to support ongoing operations and enhancements for their domain area
- Coordinate the implementation of application suite enhancements and upgrades with the Customer business units and third party vendors.
- Coordinate with other service towers to ensure application technical requirements are met.
- Participate in defining applications architecture requirements and future roadmaps.

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Position: **Application Systems Analyst III**
Supervisor: **Applications Program Manager**

Summary:
The Application Analyst III is primarily responsible for providing subject matter expertise to support, manage, and enhance the applications in their designated areas. These area might include UMIS, Public Safety (Police) and FHRMS.

Qualifications:
- Bachelor's degree or higher in CS, CIS, MIS or equivalent.
- Domain area expertise including applications and infrastructure
- 6 to 8 years' experience working as an application analyst
- Microsoft Office
- Knowledge of commonly used concepts, practices, and procedures within the domain area
- Understanding of client server technologies and relational database concepts
- Advanced knowledge of SDLC methodology.
- Project Management

Responsibilities:
- Works independently with minimal day-to-day direction from the Applications Program Manager
- Able to effectively work with department leadership to develop strategies and translate those into application roadmaps that drive business outcomes
- Receive Service Requests relating to fixes, fails, and proposed system changes. Perform initial troubleshooting and support identification of root cause of Incidents. Escalate Incidents as appropriate or to other third party vendor as required. Follow through on processing Incidents and drive resolution. Produce timely Incident reports documenting system downtime.
- Receive report requests, analyze business requirements, obtain new report authorization, provide data analysis, and develop and publish reports for End User operations.
- Provide data analysis for ad hoc report requests.
- Troubleshot problems with daily data extract, transform, and load programs.
- Provide spot checking for data quality and integrity. Report potential issues to Business Analysts or Departments as necessary for further investigation.
- Follow change control procedures.
- Develop and maintain technical and operational procedure and work instruction documentation.
- Act as a liaison between the Customer and other third party vendors. Create and track Service Requests from inception to completion. Create and track enhancement requests from inception to completion, create test cases for enhancements, and coordinate and conduct user acceptance testing.
- Consult on data processing and data structures to support ongoing operations and enhancements for their domain area
- Coordinate the implementation of application suite enhancements and upgrades with the Customer business units and third party vendors.
- Coordinate with other service towers to ensure application technical requirements are met.
- Defining applications architecture requirements and future roadmaps.

UNISYS

Position: **Database Administrator**
Supervisor: **Applications Program Manager**

Summary:
The Database Administrator is responsible for providing database administration for MS SQL, and Oracle databases associated with FHRMS, UMIS and other in-scope applications.

Qualifications:
- Bachelor degree or higher in CS, CIS, MIS, or equivalent.
- PeopleSoft experience and participated in PeopleSoft 9 projects in the technical/infrastructure area
- Five (5) years of professional database management experience across a combination of Informix, Oracle and SQL
- Relevant certifications for the skills/application/service area/domain
- Experience with Microsoft Office

Responsibilities:
- Performs data modeling, logical and physical database design based on a thorough knowledge of modeling techniques, the modeling tools available on the project, and the business functions of the subject system.
- Database administration, including tasks such as: loading data, managing data security and user access, performance monitoring and tuning, and all aspects of data integrity, backup, recovery, user and developer support.
- PeopleSoft Administration including such tasks as applying maintenance packs, upgrades, application configuration.
- Plans, executes, and maintains database capacity, backup and recovery, and disaster recovery plans.
- Exhibits familiarity with all phases of database programming (e.g., assists programmers to troubleshoot and tune programs for the most efficient database usage).
- Possesses thorough knowledge of the subject DBMS, DML (SQL), DDL, utilities, services, troubleshooting, architecture, syntax, etc.
- Displays expertise with host operating and networking environments to completely provide all required functions and services, including estimating and monitoring of all required hardware, coding and execution of administration jobs, in addition to monitoring and archiving backup files.
- Maintains the link between the ISP and the web server.
- Oversees website performance and functionality.
- Involved in maintaining the connectivity between the internet and the company's LAN/WAN, e-mail/intranet/internet operations, firewall and overall security, as defined.
- Implements projects with various business units, functional areas and/or vendors.

UNISYS

Position: **Sr. Network and Security Engineer**
Supervisor: **Infrastructure Program Manager**

Summary:
The Sr. Network and Security Engineer Provides mostly tier 2 (and sometimes tier 3) support within the networking environment for the City.

Qualifications:
- Bachelor degree or higher in CS, CIS, MIS, or equivalent.
- 6 to 8 years' experience in computer system basics and/or related areas of expertise.
- Knowledge and skills may be obtained from a 2-4 year professional computer/IT degree, technical training plus direct related experience.
- Strong experience in MS environment, Cisco technologies, VM ware, MS virtual technologies. servers, storage, network and VOIP technologies
- Advanced knowledge in evaluating vendor products and make recommendations to purchase hardware and software.
- Knowledge of setting up administrator and service accounts
- Knowledgeable in network security procedures, best practices, and implementation.
- Has achieved industry standard certifications: Security+, CCNP, CCNA, Network+, MCSA.

Skills:
- Enterprise Compute Services hands-on operations experience
- Ability to troubleshoot software issue and customer applications as required.
- Proficient documentation skills are required.

Responsibilities:
- Successful provisioning as well as supervision, installation/configuration, operation, and maintenance of systems hardware, software, and related infrastructure. Installation of new systems, rebuilding existing systems, configuration of hardware, peripherals, services, settings, directories, storage, etc. in accordance with customer standards.
- Configuration management of Local Area Networks (LANs), Wide Area Networks (WANs), network segments, and Internet and Intranet systems to ensure operability. Installation and maintenance, network hardware and software, analyze problems, and monitor networks to ensure their availability to users
- Maintains, monitors and troubleshoots within the roles of Incident Management (Return-to-Service) and/or Problem Management (Reason for Outage).
- Evaluates a system's performance and identifies user needs based on approved software per customer specifications.
- Supports acquisition of hardware and software as well as subcontractor services as needed.
- Works with team to determine methods and procedures on new assignments and may assist with system design efforts.
- Contributes to the preparation and presentation of technical trade-offs and/or results to managers, customers and peers.
- Works closely with network operations, systems and other groups on business projects, assignments, problems, etc.
- Ensures proper documentation for the corporate knowledgebase, including design, procedural and lessons learned. This also includes maintaining and updating existing documentation.
- Monitors the Network and System Enterprise with provided tools to ensure the health of the critical client solutions.
- Maintains on-call availability to respond to network issues and up-time; must be flexible and available with the scheduling.
- Contributes to technical artifacts through team/program SharePoint and/or communities of practice.

UNISYS

Position: **Junior Network Engineer**
Supervisor: **Infrastructure Program Manager**

Summary:
The Junior Network Engineer Provides mostly tier 2 (and sometimes tier 3) support within the networking environment for the City.

Qualifications:
- Bachelor degree in CS, CIS, MIS, or equivalent.
- 2 to 4 years' experience in computer system and network support and/or related areas of expertise.
- Experience in MS environment, Cisco technologies, VM ware, MS virtual technologies. servers, storage, network, and VOIP technologies
- Knowledge in evaluating vendor products and make recommendations to purchase hardware and software.
- Knowledge of setting up administrator and service accounts
- Have some knowledge in network security procedures, best practices, and implementation
- Has achieved industry standard in at least one of the following certifications: CCNP, CCNA, Network+, MCSA

Skills:
- Ability to troubleshoot software issue and customer applications as required
- Proficient documentation skills are required.
- Enterprise Compute Services hands-on operations experience.

Responsibilities:
- Provides mostly tier 2 (and sometimes tier 3) support within the networking environment.
- Successful provisioning as well as supervision, installation/configuration, operation, and maintenance of systems hardware, software, and related infrastructure. Installation of new systems, rebuilding existing systems, configuration of hardware, peripherals, services, settings, directories, storage, etc. in accordance with customer standards.
- Configuration management of Local Area Networks (LANs), Wide Area Networks (WANs), network segments, and Internet and Intranet systems to ensure operability. Installation and maintenance, network hardware and software, analyze problems, and monitor networks to ensure their availability to users
- Maintains, monitors and troubleshoots within the roles of Incident Management (Return-to-Service) and/or Problem Management (Reason for Outage).
- Evaluates a system's performance and identifies user needs based on approved software per customer specifications.
- Works with team to determine methods and procedures on new assignments and may assist with system design efforts.
- Contributes to the preparation and presentation of technical trade-offs and/or results to managers, customers and peers.
- Works closely with network operations, systems and other groups on business projects, assignments, problems, etc.
- Ensures proper documentation for the corporate knowledgebase, including design, procedural and lessons learned. This also includes maintaining and updating existing documentation.
- Monitors the Network and System Enterprise with provided tools to ensure the health of the critical client solutions.
- Maintains on-call availability to respond to network issues and up-time; must be flexible and available with the scheduling.
- Contributes to technical artifacts through team/program SharePoint and/or communities of practice.

UNISYS

Position: **EUS Engineer**
Supervisor: **End-User Services Manager**

Summary:
The EUS/Windows Engineer has responsibility for operational, troubleshooting and engineering support of SCCM deployments, MDT, Application Testing and Troubleshooting, Image Creation and have an understanding of the software packaging process.

Qualifications:
- Bachelor degree or higher in CS, CIS, MIS, or equivalent.
- 5 years minimum IT experience
- 3 years minimum experience in an enterprise server environment with both administration and problem resolution of Microsoft Windows Server 2012 required.
- 3 years minimum working with VMWare products. Experience supporting a large VMware environment
- Knowledge of ITIL processes and experience adhering to them in a production environment
- Strong experience in MS technologies, SCCM, Desktop Engineering and Management, Desktop virtualization, VDI, Application virtualization, Imaging and packaging.
- Working knowledge of SCCM 2012 and the Microsoft Deployment Toolkit (MDT)
- Windows desktop support experience with at least Windows 7 support experience. Preferably Windows 8.1. Windows 10 is an added bonus to assist with the Windows 10 migration project
- Support in a Municipality a plus.

Skills:
- Professional attitude, appearance and communication skills required
- Ability to be part of a team and follow instructions accurately and effectively
- Project delivery experience

Responsibilities
- Understanding of creation and troubleshooting GPOs
- Application Testing and Troubleshooting
- Image Creation, Software Deployments, and understanding of software packaging
- Adherence to change and incident management processes. Work the incident queue to resolve L2 tickets. Submit RFCs for all changes made in the environment, following documented procedures
- Be an escalation point for the Desktop management and End User Services teams. Work closely with them to develop solutions

UNISYS

Position: **EUS/Windows Engineer**
Supervisor: **End-User Services Manager**

Summary:
The EUS/Windows Engineer has responsibility for operational, troubleshooting and engineering support of SCCM deployments, MDT, Application Testing and Troubleshooting, Image Creation and have an understanding of the software packaging process.

The Engineer will also need an understanding of Windows server and be able to perform limited Windows server support, provision virtual servers, implement group memberships and file system security.

Qualifications:
- Bachelor degree or higher in CS, CIS, MIS, or equivalent.
- 5 years minimum IT experience
- 3 years minimum experience in an enterprise server environment with both administration and problem resolution of Microsoft Windows Server 2012 required.
- 3 years minimum working with VMWare products. Experience supporting a large VMware environment
- Knowledge of ITIL processes and experience adhering to them in a production environment
- Working knowledge of VMWare 5.5 with the ability to provision and decommission virtual machines
- Windows Server 2008/2012 Active Directory management including group memberships and file system security
- Server hardware and rack / stack experience
- Support in a Municipality a plus.
- Strong experience in MS technologies, SCCM, Desktop Engineering and Management, Desktop virtualization, VDI, Application virtualization, Imaging and packaging.
- System Center Endpoint Protection experience (SCEP)
- Working knowledge of SCCM 2012 and the Microsoft Deployment Toolkit (MDT)
- Support in a Municipality a plus.

Skills:
- Professional attitude, appearance and communication skills required
- Ability to be part of a team and follow instructions accurately and effectively
- Good verbal and written communications as the engineer will need to interface with the Windows management and the PMO to report status
- Windows desktop support experience with at least Windows 7 support experience. Preferably Windows 8.1. Windows 10 is an added bonus to assist with the Windows 10 migration project
- Project delivery experience

Responsibilities
- Understanding of creation and troubleshooting GPOs
- Application Testing and Troubleshooting
- Image Creation, Software Deployments, and understanding of software packaging
- Adherence to change and incident management processes. Work the incident queue to resolve L2 tickets. Submit RFCs for all changes made in the environment, following documented procedures
- Be an escalation point for the Desktop management and End User Services teams. Work closely with them to develop solutions
- Provide hands-on support and engineering work in the Windows 2008/2012 server environment
- Perform monthly review of disk utilization and clean up or extend disks that are getting close to the 10% threshold
- Work on project requests and ensuring the Windows management team is kept informed of all project requests that are received
- Establishing automated corrective action for server problems where possible

UNISYS

Position: **Project Manager II & PMO Support**
Supervisor: **Contract Executive**

Summary:
This role provides active project management for key projects in the End-User Services Tower and the Infrastructure Tower (Data Center and Network). The role also provides overall assistance to the Contract Executive to ensure project management methodologies are in place and adhered to across the enterprise.

Qualifications:
- BA/BS in Business Administration, Finance, Computer Science, or an equivalent combination of education and/or experience
- 3 to 5 years of progressive experience managing average-scale initiatives in an engineering or technology environment; 4 to 6 years of Technology Project Management experience
- Advanced knowledge in the assigned business area discipline such as engineering or information technology
- Project Management Professional (PMP) certification preferred
- Advanced proficiency in automated Project Management Tools such as Microsoft Project, including financial and schedule reporting
- Advanced analytical, organizational, Project Management, interpersonal and communication skills (verbal and written)
- Customer and relationship focused, process-driven, metric-focused, results-oriented, organized, self-directed
- Ability to multi-task and solve problems innovatively
- Municipality project management experience considered a plus

Responsibilities:
- Prepare Project definition, scope documents with guidance from management
- Manage all Project work plans, update schedules and report progress against plan
- Prepare budget estimates with guidance from management and track ongoing Project expenses
- Prepare communications to senior management through guidance from senior Project Manager or development management
- Research Project Management Tools or other topics in support of current and future efforts
- Adhere to and Support internal City Project Management standards and processes
- Function as focal point for Project information, secured and with confidential access
- Brainstorm and define the structure for detailed Project plans
- Ensure on-time execution and delivery of large Projects according to Project plan and budget
- Manage costs, budget, schedule, quality, risk, change control and effective communication of status
- Plan and prioritize work to align resources towards the most important business/client objective
- Receive assignments in the form of mid to long-range goals and objectives, define methods and make recommendations to meet objectives and deliver results
- Interface effectively with various IT and Department resources
- Ensure on-time execution and delivery of large Projects according to Project plan and budget
- Adhere to, Support, and contribute to development or enhancement of internal City Project Management standards and processes

UNISYS

Position: **Project Manager II End-User Services and Infrastructure**
Supervisor: **Contract Executive**

Summary:
This role provides active project management for key projects in the End-User Services Tower and the Infrastructure Tower (Data Center and Network).

Qualifications:
- BA/BS in Business Administration, Finance, Computer Science, or an equivalent combination of education and/or experience
- 3-5 years of progressive experience managing average-scale initiatives in an engineering or technology environment; 4-6 years of Technology Project Management experience
- Advanced knowledge in the assigned business area discipline such as engineering or information technology
- Project Management Professional (PMP) certification preferred
- Advanced proficiency in automated Project Management Tools such as Microsoft Project, including financial and schedule reporting
- Advanced analytical, organizational, Project Management, interpersonal and communication skills (verbal and written)
- Customer relationship focused, process driven, metric focused, results oriented, organized, self-directed
- Ability to multi-task and solve problems innovatively
- Municipality project management experience considered a plus

Responsibilities:
- Prepare Project definition, scope documents with guidance from management
- Manage all Project work plans, update schedules and report progress against plan
- Prepare budget estimates with guidance from management and track ongoing Project expenses
- Prepare communications to senior management through guidance from senior Project Manager or development management
- Research Project Management Tools or other topics in support of current and future efforts
- Adhere to and Support internal City Project Management standards and processes
- Brainstorm and define the structure for detailed Project plans
- Ensure on-time execution and delivery of large Projects according to Project plan and budget
- Manage costs, budget, schedule, quality, risk, change control and effective communication of status
- Plan and prioritize work to align resources towards the most important business/client objective
- Receive assignments in the form of mid to long-range goals and objectives, define methods and make recommendations to meet objectives and deliver results
- Interface effectively with various IT and Department resources
- Ensure on-time execution and delivery of large Projects according to Project plan and budget
- Adhere to, Support, and contribute to development or enhancement of internal City Project Management standards and processes

UNISYS

Position: **Project Manager III Applications**
Supervisor: **Contract Executive**

Summary:
This role provides active project management for key projects primarily in the Applications Tower along with critical projects in the End-User Services and Infrastructure Tower (Data Center and Network).

Qualifications:
- BA/BS in Business Administration, Finance, Computer Science, or an equivalent combination of education and/or experience
- 3-5 years of progressive experience managing average-scale initiatives in an application development environment; >8 years of Application Development Project Management experience
- Advanced knowledge in the assigned business area discipline such as engineering or information technology
- Project Management Professional (PMP) certification strongly desired
- Proactively drive the full end-to-end Software development lifecycle from inception through post-production
- Expert proficiency in automated Project Management Tools such as Microsoft Project, including financial and schedule reporting
- Advanced analytical, organizational, Project Management, interpersonal and communication skills (verbal and written)
- Customer relationship focused, process driven, metric focused, results oriented, organized, self-directed
- Ability to multi-task and solve problems innovatively
- Ensure on-time execution and delivery of large Projects according to Project plan and budget
- Municipality project management experience considered a plus

Responsibilities:
- Prepare Project definition, scope documents with guidance from management
- Manage all Project work plans, update schedules and report progress against plan
- Prepare budget estimates with guidance from management and track ongoing Project expenses
- Prepare communications to senior management through guidance from senior Project Manager or development management
- Research Project Management Tools or other topics in support of current and future efforts
- Adhere to, Support, and contribute to development or enhancement of internal City Project Management standards and processes
- Brainstorm and define the structure for detailed Project plans
- Ensure on-time execution and delivery of large Projects according to Project plan and budget
- Manage costs, budget, schedule, quality, risk, change control and effective communication of status
- Plan and prioritize work to align resources towards the most important business/client objective
- Receive assignments in the form of mid to long-range goals and objectives, define methods and make recommendations to meet objectives and deliver results
- Interface effectively with various IT and Department resources
- Adhere to, Support, and contribute to development or enhancement of internal City Project Management standards and processes

SCHEDULE 5, EXHIBIT 1

PRICING

to the

MASTER SERVICES AGREEMENT

BY AND BETWEEN

THE CITY OF SANTA CLARA

and

UNISYS CORPORATION

CONFIDENTIAL

SCHEDULE 17

GOVERNANCE MODEL

TO

MASTER SERVICES AGREEMENT

BY AND BETWEEN

CITY OF SANTA CLARA

AND

SERVICE PROVIDER

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Schedule 17

Governance Model

1. Overview

The governance processes set out in this Schedule are intended to provide for the Service Provider's alignment with Customer's business objectives and to facilitate the establishment and maintenance of the outsourcing relationship. It is the goal of the governance processes that the Services are delivered and managed in the most efficient and cost-effective way, while providing a framework for the resolution of any problems, introducing approaches for improving performance of the Services and introducing approaches for enhancing Customer use of information systems and tools to achieve business objectives. This Schedule establishes the working structure of communication between Customer and Service Provider and provides the framework for the ongoing management and maintenance of the Services, introduction of strategic initiatives and operational improvement recommendations., along with both Customer and Service Provider responsibilities.

2. Objectives and Scope

The primary objective of this Governance Model is to enable effective direction of the Services for Customer and to establish communication between Service Provider and Customer. The sections described herein specify activities that lend themselves to effective communication between the two organizations.

Governance encompasses the performance of duties by each of the following: (a) the Executive Committee, (b) the Management Committee, (c) the Service Provider Contract Executive, (d) the Customer Contract Executive, and (e) the Parties' operational layer of management, including Service Provider Program Managers, Service Provider PMO Lead, project managers and Services Tower technical management and staff. The Service Provider Contract Executive and the Customer Contract Executives will act as the final escalation point for issues and problems that have been escalated from the Operations and Management Committee, Project Management Office and operational leads. The Service Provider Contract Executive will also meet with the Customer Contract Executive to review Service Provider's performance related to all Service Levels, status of any Service Level performance improvement initiatives, and the status of any other key operational improvement or strategic initiatives on a monthly basis.

Service Provider will recommend standards, processes and technology for Customer's approval, encompassing all Services provided under the Master Service Agreement and all related Service Descriptions. Service Provider will perform and manage all in-scope functions at the stated levels of service described in each Service Description, and all Service Levels therein, in a cost-effective and measurable manner in support of Customer's business objectives stated herein or in any other contract or operational documentation. Stipulations stated in this Schedule are:

a. Proactive solution development for Customer's business needs and requirements for Services;

b. Architectural input and direction focused on industry best practices, standards and development and long-term strategy requirements;

c. Performance and status reporting/reviews;

d. Timely access to highly skilled and readily available Service Provider personnel with a deep knowledge of Customer's environment;

e. Timely billing of Customer's account;

f. Management of Out-of-Scope function requests;

g. The capability to deliver initiatives on time and on budget with acceptance criteria and quality metrics agreed to by Customer; and

h. Ability to deliver and balance Customer's mix of IT operational, business focused improvement initiatives, and in scope project-based work within an annual budget while maintaining service levels including high customer satisfaction

i. Others as added by mutual agreement.

This Governance Model: (a) describes the operating relationship between Service Provider and Customer, and (b) serves as the guideline for Service Provider in performing the Service Descriptions agreed to by the Parties. Service Provider shall recommend standards, processes and technology for Customer's approval encompassing all Services provided as part of continuous process improvement over the Term of all the Service Descriptions under the Master Service Agreement.

Service Provider will create an environment that fosters the creation of recommendations that will have a positive and measurable impact on the Services and customer business operations. Service Provider will actively engage the Customer and its constituent departments to develop proposed service improvements for the Customer's consideration and to develop and implement Customer-approved projects and strategic initiatives. Service Provider will make recommendations to improve productivity and performance standards, achieve cost savings, and reduce complexities in processes. The Services are to focus on Customer's changing and evolving business needs and the technology and services needed to address business needs. Service Provider will provide Customer with access to subject matter experts to advise and consult with Customer to develop and recommend solutions for new and evolving services, technology and processes.

3. Expected Results

Listed below are the results that Customer expects from Service Provider's performance. These results shall be reflected in a number of Service Levels and will be directly measured through achievement of deliverables based Service Levels and Customer Satisfaction based Service Levels.

a. Innovation and Thought Leadership: Customer expects Service Provider to spearhead innovation agenda related to technology and processes to add measurable business value to Customer. Service Provider shall provide innovation recommendations to the Customer at the quarterly Management Committee meetings, in accordance with the service requirements and Service Levels. Service Provider is expected to introduce and deploy industry standard practices to Customer's environment and help Customer in strategic planning, improve the scope, quality and innovation in services it delivers to its end customers.

b. Assessment and Planning: Customer expects Service Provider to proactively work with Customer and its departments to plan for new technology, projects and strategic initiatives, including the discussion of such projects and strategic initiatives with Customer departments at the quarterly Management Committee meetings. Customer also expects Service Provider to create and provide Customer with an annual account review, which shall contain an analysis of Service Provider's performance in relation to the Service Levels and other contract objectives, how specifically Service Provider shall correct any performance failures and an analysis of

Service Provider's performance in relation to Services that are not measured using formal Service Levels. Customer also expects Service Provider to create, maintain and provide Customer with an annual plan that will outline the major activities that it will perform in the coming year to improve its Service performance and increase the value that it provides to Customer.

c. Continuous Improvement: Customer expects the Service Provider and its staff dedicated to providing Services to the Customer to institute processes that continuously seek opportunities to improve quality and value of services provided to Customer. Customer expects continuous improvement to be a key success criterion to measure success of the relationship

d. Efficiency and Effectiveness: Customer expects that Service Provider will implement a highly efficient and effective delivery model to eliminate re-work, waste, unwarranted effort and avoidable costs. This governance model and associated governance processes is expected to provide measurement, visibility and direction to the both Parties about the efficiency and effectiveness initiatives underway.

e. Documentation, Reporting and Communication: Timely and accurate information regarding Service Provider's performance via status meetings, status reports and general performance reporting is a key expected result. Customer expects Service Provider to document procedures that will identify how Service Provider will deliver consistent and high-quality Services. In addition, this governance model is expected to create an effective and efficient way for Customer and Service Provider to communicate.

f. Compliance: Customer expects Service Provider to (a) perform contract change management, (b) provide Customer with accurate bills/invoices, (c) in accordance with the Master Service Agreement, comply with all legal requirements, (d) in accordance with the Master Service Agreement, follow Customer's policies, procedures and guidelines, such as those related to information security, physical security and privacy and (e) support Customer's audit requirements and provide auditing access and assistance to Customer and its authorized representatives in accordance with the Master Service Agreement.

4. Balanced Scorecard

A balanced scorecard will be developed by the parties prior to the first Service Commencement Date and will be used to gauge service performance, relationship quality and business alignment on an ongoing basis. In addition to the Service Levels, the scorecard will be balanced to reflect qualitative measures such as customer satisfaction (including results of the Customer Satisfaction Service Levels), compliance to roles and responsibilities, satisfaction with the working environment from both Customer and Service Provider perspectives, continuous improvement, and other items that would reflect the effectiveness and satisfaction with the Services.

The scorecard will serve as the primary vehicle for measuring the overall success of the relationship. Accordingly, it will be used by operational teams and governance bodies as a key standing agenda item.

5. Governance Model Structure & Roles

The following governance committees define the framework of the participants, the responsibilities and activities for the administration of the governance processes.

The governance committees shall meet using face-to-face facilities, audio conferencing, or Web conferencing, as mutually agreed by both Parties.

a. Contract Executives: Service Provider will assign to the Customer account an executive who will fulfill the role of Service Provider Contract Executive under the Master Services Agreement. This individual shall be suitably qualified and shall be subject to Customer's approval pursuant to the Master Service Agreement. Customer will appoint an executive who will fulfill the role of Customer Contract Executive under the Master Service Agreement. Customer Contract Executive shall meet with Customer's CIO or his designee on a weekly basis to discuss any aspects of the contract governance described in this schedule.

b. Executive Committee: The Executive Committee will be comprised of senior executives from each party, including the Customer's CIO, Customer's Contract Executive and senior Service Provider executives (TBD - e.g., VP IT Outsourcing Services) who will meet to discuss high-level strategic and operational issues relating to the Agreement.

   The Executive Committee will meet at least once semi-annually to:

   - Address relevant high-level strategic and operational issues appropriate for a board-level discussion
   - Address major contract issues/changes
   - Review the Service Provider Balanced Scorecard for business alignment with the City's goals and objectives
   - Address areas of misalignment with the Balanced Scorecard and actions to achieve realignment
   - Build an executive level relationship
   - Discuss innovation, strategy and capability development at the enterprise level – business, IT, sourcing, optimization
   - Discuss new business opportunities
   - Review and approve the use of innovation processes to drive significant business change
   - Address major relationship and alignment issues, disputes and Service and contract changes that have been escalated to this level.

c. Management Committee: The Management Committee will be comprised of the Customer Contract Executive, the Service Provider Contract Executive, Service Provider Program Managers, and other nominated Management Committee members.

   The Management Committee shall meet at least once quarterly to:

   - Review Service Provider performance over the previous three (3) months, such as Service Levels, costs, and process issues.
   - Resolve any issues escalated to the Management Committee.
   - Review opportunities for technology improvement and increased process efficiency based on Service Provider research and experience in the market place.
   - Review and discuss Service Provider's semi-annual written report regarding innovative products and services that may be of benefit to Customer, as referenced in Schedule 3A.
   - Review and discuss Service Provider's semi-annual written report regarding operational efficiencies improvements, as referenced in Schedule 3A.

- Review and discuss results of Customer-approved operation efficiencies improvement recommendations and innovative products and services recommendations
- Review and discuss the results of annual end user and department personnel satisfactions surveys, as referenced in Schedule 3A.
- Review and discuss Service Provider's progress against the Annual Execution Plan, including any required corrections

d. Services Review Committee: The Services Review Committee will include Customer Contract Executive, Service Provider Contract Executive and Service Provider Service Delivery Managers.

The Services Review Committee shall meet at least once monthly to:

- Discuss any issues relating to Service Provider performance in the provision of Services such as service performance, costs, operational issues, user complaints, delivery failures, and ongoing email End-User satisfaction survey results from closed incident and Service Request tickets
- Conduct Service Level, Root Cause Analysis and improvement plan review
- Conduct Service improvement status review
- Conduct operational improvements status review
- Conduct new operational improvements review
- Address security-related issues and proactive initiatives to prevent security breaches
- Review monthly demand vs. capacity results, imbalances and resolution and rolling quarterly projections review
- Discuss any issues relating to Service Provider provision of Services that need immediate management attention
- Discuss the status of Projects in progress and conduct planning for any new Projects under Customer consideration that may impact Service Provider
- Discuss any personnel-related issues affecting the relationship or provision of Service
- Discuss solutions to address service deficiencies

e. Service Tower Review Meeting: The Service Tower Review Meeting will include the CIO, Customer Program Managers and Service Provider Program Managers as well as relevant project and Service Tower personnel, as required. Each week the Service Tower Review Meeting shall rotate its main focus on four areas: Infrastructure (Enterprise Compute, End User and Service Desk), Applications, Cybersecurity, and GIS.

The Service Tower Review Meeting shall meet weekly to:

- Conduct a high level review of outstanding operational issues
- Review completed Incident Root Cause Analyses and approve remediation plans
- Review project forecasts (function, timing)
- Address issues impacting project delivery
- Review and discuss technology roadmap
- Discuss Emerging Trends as relevant to the City and IT Services

- Discuss potential changes to procedures in support of continuous improvement
- Discuss and resolve issues relating to Customer department projects and initiatives

f. Steady State and Project Stand-up Meeting: The joint Steady State and Project Stand-up Meeting will include Customer Program Managers and Service Provider Program Managers.

The Steady State and Project Stand-up Meeting shall occur every Monday, Wednesday and Friday to:

- Discuss any production problems that occurred during the previous week/day.
- Address outstanding or unresolved operational and project issues
- Address security-related issues and proactive initiatives to prevent security breaches
- Address any open items such as problem tickets or Project requests.
- Review the status of all in progress changes
- Discuss major activities and initiatives for the week

6. Responsibility Matrix

The responsibility matrix set out below (the "Responsibility Matrix") lists the key processes, activities and tasks to be undertaken by Service Provider as part of the Services, as well as Customer responsibilities. It also indicates which of the Parties is ultimately responsible and accountable for the listed process, activity or task. It is not the intent of this or any Responsibility Matrix to absolutely define every process, activity, or task that must be performed in connection with the Services.

	Governance Services	Service Provider	Customer
I.	**Service Delivery Team**		
1.	Designate a dedicated Service Provider Contract Executive.	**X**	
2.	Approve the Service Provider Contract Executive.		**X**
3.	Identify Key Service Provider Personnel.	**X**	
4.	Review and approve Key Service Provider Personnel.		**X**
5.	Assign account team.	**X**	
6.	Provide adequate training of account team and review team performance.	**X**	
7.	Implement corrective actions relating to team performance, as necessary.	**X**	
II.	**Project Management Office**		
8.	Establish a Project Management Office.	**X**	
9.	Develop, manage and maintain a current organizational chart with contact names, functional titles, and phone numbers for all key staff, as well as escalation hierarchy aligning the Service Provider PMO functionally to Customer's management team.	**X**	
10.	Provide updated current organization chart to Customer on single web portal.	**X**	
11.	Communicate to Customer in a timely manner and in writing, any restructuring or reorganizations in the Service Provider service delivery structure.	**X**	

	Governance Services	Service Provider	Customer
12.	Coordinate and manage all implementation activities and act as the single point of accountability for all service delivery issues at Customer locations.	X	
13.	Assign an owner, a priority, a description, a resolution plan, and an estimated time to resolve for all governance-related issues.	X	
14.	Review issues log with Customer during operational, monthly, and annual reviews.	X	
15.	On a monthly basis, the Service Provider Program Management Office will provide services reports as specified in Schedule 7.	X	
16.	Establish a process for the escalation of issues by Customer.	X	
17.	Approve the escalation process.		X
18.	Capture all change requests from Customer and work with Customer to prioritize change requests received.	X	
III.	**Communication Strategy – Changes**		
19.	Develop a communications strategy for all Changes that affect Customer's technology environment.	X	
20.	Approve communications strategy.		X
21.	Execute communications strategy.	X	
22.	Assist in executing communications strategy, as relevant.		X
23.	Communicate all Changes and updates to stakeholders and support personnel with sufficient lead-time to allow planning, testing, and training development.	X	
24.	Assist in communicating all Changes and updates to stakeholders and support personnel.		X
IV.	**Committee Meetings and Reporting**		
25.	Propose committee meeting schedules.	X	
26.	Approve committee meeting schedules.		X
27.	Schedule and conduct committee meetings with Customer	X	
28.	Participate in committee meetings.		X
29.	Prepare and distribute Project status and Service performance reports for required committee meetings.	X	
30.	Review and provide analysis of the status and Service performance reports with Customer.	X	
31.	Identify areas for performance improvement and propose appropriate changes.	X	
32.	Approve or reject proposed Changes or suggest alternatives.		X
33.	Prepare and distribute minutes from committee meetings.	X	
34.	Provide a plan to implement action items resulting from, and agreed to during, committee meetings.	X	
35.	Approve plan to implement action items resulting from, and agreed to during, committee meetings.		X
36.	Provide follow up reporting on results of implemented action items and actions taken to achieve identified objectives, and integrate such reporting and discussion with Customer into governance bodies' committee meetings.	X	
37.	Approve follow up reporting.		X

	Governance Services	Service Provider	Customer
38.	Provide Service Level, resource utilization, project pool analysis and activity reports for required committee meetings.	X	
39.	Audit Service Level, resource utilization, project pool analysis and activity reports for required committee meetings		X
40.	Prepare quarterly management briefing for current and proposed projects and strategic initiatives, technology improvement and efficiency gain opportunities, and innovation recommendations.	X	
41.	Schedule and attend quarterly Management Committee meeting.	X	
42.	Attend quarterly Management Committee meeting.		X
43.	Implement action items resulting from, and agreed to, during Management Committee meeting.	X	
44.	Assist in implementing action items resulting from, and agreed to, during Management Committee meeting, as relevant.		
45.	Manage consequences resulting from Management Committee meeting.	X	
46.	Prepare and distribute an overview of activity plans as a result of Management Committee meetings.	X	
47.	Prepare an Annual Execution Plan. Such plan will outline the major activities, projects and associated schedules that the Service Provider will perform in the coming year to deliver the Services meeting existing Service Levels and improving Service.	X	
48.	Provide input into Annual Execution Plan.		X
49.	Modify Annual Execution Plan as necessary.	X	
50.	Finalize Annual Execution Plan.	X	
51.	Execute Annual Execution Plan.	X	
52.	Review progress against Annual Execution Plan during quarterly Management Review Committee meeting.	X	
V.	**Contract Change Management**		
53.	Review contract for continuous improvements and propose contract Changes (such as additions or Changes to Service Levels).	X	
54.	Review contract for continuous improvements and propose contract Changes (such as additions or Changes to Service Levels).		X
55.	Approve or reject contract Changes.		X
56.	Submit contract Change Orders to the Customer Contract Executive for review and approval.	X	
57.	Escalate contract Change disputes to the Management Committee.		X
VI.	**Report Management**		
58.	Identify reporting requirements.		X
59.	Assist in identifying reporting requirements	X	
60.	Review existing reports and propose new reports.	X	
61.	Develop sample reports.	X	
62.	Approve sample reports.		X
63.	Develop a report schedule with the frequency of report production, the number of copies of each report to be produced, the report distribution list, and the report format (e.g. hard copy, e-mail, Web portal).	X	

	Governance Services	Service Provider	Customer
64.	Approve report schedule.		X
65.	Produce and deliver reports in accordance with the Schedule 7.	X	
66.	Provide reporting via a Web portal.	X	
67.	Review reports and follow-up with the Service Provider, if necessary.		X
68.	Correct erroneous reports.	X	
69.	Re-produce reports, if necessary.	X	
70.	Approve reports.		X
VII.	**Billing/Invoicing**		
71.	Provide an invoice that meets Customer's accounting and financial requirements.	X	
72.	Approve the invoice format.		X
73.	Request clarification for charges in dispute.		X
74.	Investigate and respond to requests for clarification, as required.	X	
75.	Escalate billing disputes to Management Committee, as relevant.	X	
76.	Escalate billing disputes to Management Committee, as relevant.		X
77.	Pay correct invoices per payment terms.		X
VIII.	**Service Provider Third-Party Contract Management**		
78.	Provide Customer with notification of the desire to enter into a third-party contract in order to provide Services, if any.	X	
79.	Approve use of third-party contractors by Service Provider.		X
80.	Negotiate or renegotiate Service Provider third-party contracts, as necessary.	X	
81.	Manage third-party contract terms and conditions (e.g. contract expiration).	X	
82.	Manage Subcontractors' compliance with the Master Service Agreement.	X	
IX.	**Compliance Management**		
83.	Report to Customer any activity within the environments under control of the Service Provider which do not comply with legal and regulatory requirements affecting Service Provider's business and Customer specified standards.	X	
84.	Provide Customer specific standards.		X
85.	Conduct periodic audits of the Procedures Manual to verify accuracy and compliance.	X	
86.	Ensure that the Service Provider's systems and procedures comply with legal and regulatory requirements related to the provision of the Services.	X	
87.	Review and certify that proposed Changes are compliant with existing quality standards prior to implementation of the Change.	X	
88.	Conduct regular reviews, not less frequently than annually, of regulatory requirements, quality standards and processes.	X	
89.	Participate in regular reviews, not less frequently than annually, of regulatory requirements, quality standards and processes.		X
90.	Make recommendations on implementation activities and	X	

	Governance Services	Service Provider	Customer
	improvements to meet regulatory requirements, quality standards and processes.		
91.	Implement disciplinary process for Service Provider personnel, in accordance with Service Provider's policies.	X	
X.	**Satisfaction Surveys**		
92.	Conduct End-User, management and Service Desk satisfaction surveys in accordance with Schedule 3A and 3B.	X	
93.	Report survey results and Service Provider's survey method, and meet with Customer to present survey results and recommend approaches to address Customer dissatisfaction.	X	
94.	Define the survey(s) including, but not limited to format and content.	X	
95.	Provide input into defining the survey(s) including, but not limited to format and content.		X
96.	Approve the surveys.		X
97.	Conduct the surveys.	X	
98.	Audit the survey results.		X
99.	Suggest changes to processes or deliverables in response to satisfaction survey results to drive continuous improvement.	X	
100.	Approve proposed process or deliverable changes or suggest alternatives.		X
101.	Implement Customer-approved process or deliverable changes.	X	
XI.	**Auditing Support**		
102.	Develop and maintain auditing support procedures.	X	
103.	Approve auditing support procedures.		X
104.	Notify Service Provider of intent to perform an audit.		X
105.	Perform audits.		X
106.	Provide audit support for internal and external audits.	X	
107.	Provide audit responses and remediation, as applicable.	X	
108.	Provide audit responses and remediation, as applicable.		X
109.	Implement recommendations from audit findings within agreed upon timeframe, as applicable.	X	
110.	Implement recommendations from audit findings within agreed upon timeframe, as applicable.		X