Information Technology Services Agreement
Amendment 10

County of Solano

Avenu Insights & Analytics Inc.

This tenth amendment ("Amendment No. 10") to the Information Technology Services Agreement dated June 12, 2006 ("Agreement") is made on December 31, 2018 ("Amendment Effective Date"), by and between the County of Solano, California, ("County") and Avenu Insights & Analytics Inc. ("Avenu" or "Provider"). The County and Avenu (each individually a "Party" and collectively "the Parties") agree as follows:

Throughout this Amendment No. 10, wherever language is underlined it is added, and wherever language is crossed out it is deleted.

1. Section 9.1.4 of the Agreement is deleted and replaced with:

    9.1.4   Extended Term
    Notwithstanding the expiration of the last Renewal Term pursuant to Sections 9.1.1 and 9.1.2, the Parties agree to extend the term of this Agreement from the Effective Date until December 31, 2019 ("Extension Term").

    County shall have the right to extend the Extension Term for up to twelve (12) successive renewal periods of one (1) month (each an "*Extension Term*") by providing written notice to Provider in accordance with the terms of *Section 19.6 Notices* at least thirty (30) days before the end of the Extension Term.

2. Schedule 3, Fees, and Appendix 3A of Schedule 3 shall be replaced with the pricing for the Extension Term of January 1, 2019 through December 31, 2019 which is provided in the attached Exhibit A to this Amendment. Should a vacancy occur in one of the identified FTE positions, Contractor agrees that it will only bill 50% for that vacant position for the first full month the position is vacant ("Vacancy Offset"). Should the position remain vacant beyond 30 calendar days, Contractor is not entitled to bill any Vacancy Offset until the position is filled. If a vacant position is filled at any point within a calendar month, Contractor may bill for that pro rata share of the Baseline Quantity that is actually staffed with a qualified FTE. Contractor agrees to provide County with notice of any vacancy within one business day that the vacancy occurs.

    In the event the Extension Term continues beyond December 31, 2019, the County and Provider will mutually agree on pricing.

3. Schedule 4, Fee Reductions, shall be deleted and replace with:

    Services will be provided subject to (i) availability of resources at any particular time during the Term. The County acknowledges that Avenu is providing a set level of effort based on defined Avenu personnel resources; (ii) the priorities and direction provided by the County; and (iii) the availability of program funding. Any changes in scope, direction or budget that limit or impair Avenu's ability to provide some or all of the Services will result in a reduction in the level of Services.

4. Schedule 2A (Cross Functional Services SOW for Solano County) dated March 14, 2006, and updated on June 07, 2006, is deleted and replaced with the revised Schedule 2A (Modified Cross Functional Services SOW for Solano County) updated December 31, 2018, attached to this Amendment as Exhibit B and made part of the Agreement.

5. Schedule 2D (Data Network Services SOW for Solano County) dated March 14, 2006, and updated on June 06, 2006, is deleted and replaced with the revised Schedule 2D (Data Network Services SOW for Solano County) updated December 31, 2018, attached to this Amendment as Exhibit C and made part of the Agreement.
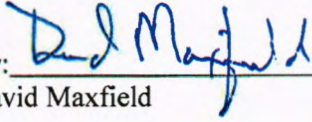
6. All other terms and conditions set forth in the Agreement, as previously amended, and as amended by this Amendment No. 10, shall remain unchanged and in full effect.

IN WITNESS WHEREOF, County and Provider have caused this Amendment No. 10 to be signed by their duly authorized officers, on the Amendment Effective Date.

County:
County of Solano

Provider:
Avenu State & Local

By:_____

By:_____
David Maxfield

Title:_____

Title: CIO & CTO_____

APPROVED AS TO FORM

By:_____
County Counsel

Contract Amendment 10
Exhibit A-1

Pricing for the Extension Term of January 1, 2019 through December 31, 2019.

SUMMARY: Extension Term 1/1/19 - 12 /31/19	
Service Recipient:	**Solano County**
11/1/2018	
Vendor Name:	**Avenu State and Local**

RECURRING / ONGOING COSTS				
Category	**Service / Description**	**Jan 2019 - June 2019**	**July 2019 - Dec 2019**	**Total**
Base Service	Data Center Services	$236,399	$243,491	$479,890
Base Service	Desktop Support Services	$869,319	$895,398	$1,764,717
Base Service	Data Network Services	$845,479	$870,843	$1,716,322
Base Service	GIS Services	$299,487	$308,472	$607,960
Base Service	Help Desk Services	$184,458	$189,991	$374,449
Base Service	Application Services	$614,457	$632,890	$1,247,347
	ANNUAL SERVICE FEES	$3,049,599	$3,141,087	$6,190,686

Contract Amendment 10
Exhibit A-2

Avenu Provided Staff				01/2019 - 06/2019	07/2019 - 12/2019
Resource Category	**Unit of Measure**	**Baseline Quantity**	**Monthly Unit Cost**	**Monthly Total**	**Monthly Total**
Data Center Services					
Management Services	FTE	1	$ 15,144	$ 15,144	$ 15,599
Computer Operator Supervisor	FTE	1	$ 7,812	$ 7,812	$ 8,046
Computer Lead Operator	FTE	1	$ 7,812	$ 7,812	$ 8,046
Computer Lead Operator	FTE	0	$ 7,812	$ -	$ -
Computer Sr Operator	FTE	1	$ 8,632	$ 8,632	$ 8,891
Data Center Services Fees			**MONTHLY**	$ 39,400	$ 40,582
Desktop Support Services					
Management Services	FTE	0.5	$ 12,935	$ 6,468	$ 6,662
Desktop Support Supervisor	FTE	1	$ 8,784	$ 8,784	$ 9,047
System Senior Lead	FTE	1	$ 8,784	$ 8,784	$ 9,047
System Senior Technician	FTE	12	$ 8,784	$ 105,404	$ 108,566
Prod Control Sr. Analyst	FTE	1	$ 7,724	$ 7,724	$ 7,955
Prod Control Analyst	FTE	1	$ 7,724	$ 7,724	$ 7,955
Desktop Support Services Fees			**MONTHLY**	$ 144,886	$ 149,233
Network Services					
Network Supervisor	FTE	1	$ 16,280	$ 16,280	$ 16,768
Security Administration	FTE	1	$ 15,750	$ 15,750	$ 16,223
Network Lead Admin.	FTE	1	$ 13,024	$ 13,024	$ 13,415
Data/Voice Engineers	FTE	2	$ 15,369	$ 30,739	$ 31,661
Network Sr. System Admin.	FTE	5	$ 13,024	$ 65,121	$ 67,074
Network Services Fees			**MONTHLY**	$ 140,913	$ 145,141
HelpDesk Services					
Management Services	FTE	0.5	$ 13,327	$ 6,663	$ 6,863
HelpDesk Lead	FTE	1	$ 8,026	$ 8,026	$ 8,267
HelpDesk Analyst	FTE	2	$ 8,026	$ 16,053	$ 16,535
HelpDesk Services Fees			**MONTHLY**	$ 30,743	$ 31,665
Applications Services					
Management Services	FTE	0	$ 14,387	$ -	$ -
Application Support	FTE	2	$ 13,630	$ 27,260	$ 28,078
DBA Support	FTE	2	$ 16,441	$ 32,881	$ 33,868
Sr. Infrastructure Engineer	FTE	1	$ 16,356	$ 16,356	$ 16,847
Infrastructure Engineer	FTE	1	$ 13,434	$ 13,434	$ 13,837
Systems Development	FTE	1	$ 12,479	$ 12,479	$ 12,853
Applications Services Fees	$		16,451	$ 102,409	$ 105,482
GIS Services					
GIS Programmer/Developer	FTE	1	$ 13,630	$ 13,630	$ 14,039
GIS Analyst - Senior	FTE	1	$ 13,630	$ 13,630	$ 14,039
GIS Analyst	FTE	2	$ 11,327	$ 22,655	$ 23,334
GIS Technician	FTE	0	$ 11,327	$ -	$ -
GIS Services Fees			**MONTHLY**	$ 49,915	$ 51,412
Total Monthly				$508,267	$ 523,515
Total for Period				$3,049,599	$ 3,141,087

Cost Of Living Adjustment (COLA) – A COLA increase of 3% has been applied to 07/01/19 through 12/31/19 of the schedule

Optional Pricing Modification – At the County's discretion, the Provider offers a value added service to help defray costs associated with this contract. Our clients may access additional revenue generating services to the county such as our Sales and Use Tax services. A portion of the fees incurred under additional services will be credited or applied to the price schedule above. The Sales and Use Tax service utilizes custom software and experienced California Tax Experts to research and recover Solano County tax revenue that was previously not collected or misallocated to other jurisdictions or accounts. This is a completely optional value add that can help self-fund our services.

Contract Amendment 10
Exhibit B

Schedule 2A (Cross Functional Services SOW for Solano County)

Contract Amendment 10
Exhibit C

Schedule 2D (Data Network Services SOW for Solano County)

SCHEDULE 2A

MODIFIED CROSS-FUNCTIONAL SERVICES SOW

for

SOLANO COUNTY

March 14, 2006
Updated June 7, 2006
Updated June 01, 2017
Updated November 29, 2018

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List of Tables

This is Schedule 2.A (Cross Functional Services SOW) to the Agreement between Solano County ("County") and Provider. Unless otherwise expressly defined herein, the capitalized terms used herein shall have the meaning assigned to them in Attachment A2 (SOW Definitions) or in the Agreement.

1.0   Cross Functional Services Overview

This Schedule 2A (Cross Functional Services SOW) is the Statement of Work (or "SOW") that sets forth the roles and responsibilities of the Parties for the set of common services that apply to the provision, delivery, and management of all Services ("Cross Functional Services") in support of the County Information Technology (IT) infrastructure. Provider will provide Cross Functional Services across all in-scope Service Towers. As depicted in Figure 1 below, Services, activities and roles and responsibilities described in this SOW are within the scope of each SOW for the Service Towers (Schedules 2A through 2F) and shall be included within the Fees for each Service Tower specified in Schedule 3 (Fees) to the Agreement. Provider shall provide all hardware, software, and infrastructure support in connection with all Bundled Service Component(s). As of the effective date of the Agreement, the County is responsible for providing all other hardware, software, and infrastructure necessary for provider to deliver all Services under this Agreement.

Figure 1 depicts the relationship between the Cross Functional Services SOW, and all SOWs within the scope of the Agreement.

Figure 1: SOW Service Towers with Cross Functional View
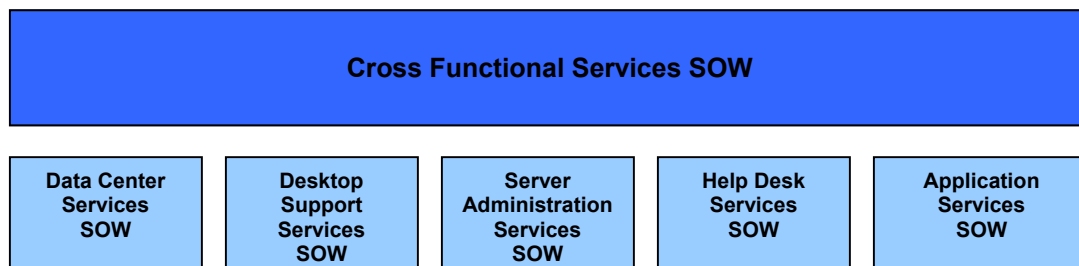
2.0   Service Environment

2.1   Scope of the Infrastructure to be Supported

The Service Environment section in Service Tower SOW describes the environment to be supported and/or with which Provider shall comply. The Service Environment includes Service Tower components such as hardware and software, facilities and locations, personnel, policies and procedures, licenses and agreements. As such, this SOW shall apply to the Service Environment as specified in each Service Tower SOW, with the exception of work-in-progress and future initiatives which will be described in this SOW. The Service Environment for each Service Tower will be documented in the applicable SOW Appendices and are to be maintained by Provider, reviewed with the County, updated by Provider and made available to the County on a quarterly basis.

3.0   Cross Functional Services Requirements

The Provider is responsible for providing Cross Functional Services defined in this SOW for Service Towers defined in the following documents:

- Modified Schedule 2B – Data Center Services SOW

- Modified Schedule 2C – Desktop Support Services SOW

- Schedule 2D – Server Administration Services SOW

- Modified Schedule 2E – Help Desk Services SOW

- Modified Schedule 2F – Application Services SOW

3.1 Service Descriptions and Roles & Responsibilities

IT Lifecycle & Operations	Service Delivery	Service Support
• Planning & Analysis • Requirements Definition • Integration & Testing • Implementation & Migration • Environment & Facilities Support • Training & Knowledge Transfer • Documentation • Operations & Administration • Maintenance • Technology Refreshment & Replenishment	• Capacity Management • Performance Management • Service Level Monitoring & Reporting • IT Service Continuity & Disaster Recovery • Financial/Chargeback Management & Invoicing	• Incident & Problem Management • Root Cause Analysis • Configuration Management • Change & Release Management • Account Management

3.1.1 General Responsibilities

The following table identifies General roles and responsibilities associated with this SOW. An "X" is placed in the column under the Party that will be responsible for performing the task. Provider responsibilities are indicated in the column labeled "Provider."

Table 1. General Services Roles and Responsibilities

General Roles and Responsibilities	Provider	County
1. Perform business liaison function for County operational units		X
2. Provide Services that support County business needs, technical requirements and End-User requirements	X	
3. Comply with County policies and standards and regulations applicable to the County for information, information systems, personnel, physical security	X	
4. Develop and maintain a comprehensive Procedures Manual that contains the operational procedures that will be used in the delivery of Services	X	
5. Conform to changes in laws, regulations and policies. Major changes shall be proposed on a project-by-project effort basis to alter the environment to conform to the new requirements	X	

General Roles and Responsibilities	Provider	County
6. Report performance against Service Level Requirements (SLRs) as applicable	X	
7. Coordinate all changes to the IT infrastructure that may affect the SLRs of any other Service Tower apart from Data Networking and Security Infrastructure	X	
8. Provide timely creation, updating, maintenance and provision of all appropriate project plans, project time and cost estimates, technical Specifications, management documentation and management reporting in a form/format that is acceptable to the County for all Service Tower projects and major service activities		X
9. Provide time and cost estimates, technical specifications, management documentation and management reporting in a form/format that is acceptable to the County for all Service Tower projects and major service activities	X	
10. Adhere to ITIL best practices	X	
11. Provide support for financial audits	X	

3.1.2   IT Lifecycle & Operations

3.1.2.1 *Planning and Analysis*

Planning and Analysis Services are activities associated with researching new technical trends, products and services, such as hardware components, and System Software, that offer opportunities to improve the efficiency and effectiveness of the Service Towers. Planning and Analysis Services can also help mitigate risks by reducing defects and improving the Quality of IT Services. The following table identifies the Planning and Analysis roles and responsibilities that Provider and the County will perform.

Table 2. Planning and Analysis Roles and Responsibilities

Planning and Analysis Roles and Responsibilities	Provider	County
1. Define Services, standards and timeframes for Planning and Analysis activities		X
2. Participate in defining Services and standards for Planning and Analysis activities	X	
3. Review and approve Services and standards for Planning and Analysis activities		X
4. Define County requirements at the enterprise level for all Service Towers (e.g., business, technology strategy, functional, availability, capacity, performance, backup and IT continuity service)		X
5. Perform infrastructure, configuration, technical and Service Planning and Analysis based on County requirements (e.g., Availability, capacity, performance, backup and IT Continuity and Disaster Recovery Services) apart from Data Network and Security Infrastructure	X	
6. Provide infrastructure installation and upgrade recommendations	X	

Planning and Analysis Roles and Responsibilities	Provider	County
7. Approve infrastructure Planning and Analysis and recommendations for new applications, infrastructure and Services		X
8. Provide management reports required for Planning and Analysis activities (e.g., utilization and capacity trend reports)	X	
9. Define County Data Backup and Retention requirements and policies for all Service Towers		X
10. Recommend Data Backup and Retention process for meeting the County requirements	X	
11. Continuously monitor technical trends through independent research; document and report on products and services with potential use for the County as it aligns with the County's business and technology strategy	X	
12. Perform feasibility studies for the implementation of new technologies that best meet County business needs and meet cost, performance and Quality objectives	X	
13. Define enterprise-level project management policies, procedures and requirements (e.g., project feasibility analysis, cost benefit analysis, scheduling, costing, resource planning, communication planning, procurement, risk management and Quality management)		X
14. Perform project management oversight and liaison function to the business and customers		X
15. Conduct technical and business planning sessions to establish standards, architecture and project initiatives		X
16. Participate in technical and business planning sessions to establish standards, architecture and project initiatives	X	
17. Conduct regular planning for technology refresh and upgrades	X	
18. Participate in regular planning for technology refresh and upgrades		X
19. Conduct technical reviews and provide recommendations for improvements to the infrastructure that increase efficiency and effectiveness and reduce costs	X	

3.1.2.2 Requirements Definition

Requirements Definition services are the activities associated with the assessment and definition of functional, performance, IT Continuity and Disaster Recovery, and requirements that also comply with regulatory and County policies. These requirements drive the technical design for the environment. The following table identifies the Requirements Definition roles and responsibilities that Provider and the County will perform.

Table 3. Requirements Definition Roles and Responsibilities

Requirements Definition Roles and Responsibilities	Provider	County
1. Define requirements standards		X
2. Participate in defining requirements and standards	X	

Requirements Definition Roles and Responsibilities	Provider	County
3. Conduct interviews, group workshops, and surveys to determine user functional, performance, availability, maintainability and IT continuity requirements		X
4. Participate in appropriate requirements gathering activities (e.g., focus groups, interviews)	X	
5. Provide written information pertaining to the requirements definition to enable development of appropriate requirements documentation (e.g., business requirements documentation)		X
6. Document all requirements in agreed to formats (e.g., system Specifications, data models,)	X	
7. Approve all requirements documents		X
8. Define Acceptance test criteria		X
9. Participate in defining and document Acceptance test criteria	X	
10. Review and approve all Acceptance test criteria		X

3.1.2.3 Design Specifications

Design Specification services are the activities and deliverables associated with translating user and information system requirements into detailed technical Specifications. The following table identifies the Design Specifications roles and responsibilities that Provider and the County will perform.

Table 4. Design Specifications Roles and Responsibilities

Design Specification Roles and Responsibilities	Provider	County
1. Define Design Specifications standards and requirements		X
2. Develop and document technical design plans and environment configuration based on County Design Specifications standards and requirements, including IT architecture, functional, performance, availability, maintainability, and IT Continuity and Disaster Recovery requirements	X	
3. Determine required upgrade, replacement and/or conversion requirements (e.g., hardware, Software)	X	
4. Review and approve design plans through coordination with the appropriate County technology standards group and design architects		X
5. Conduct site surveys for design efforts as required	X	
6. Provide written information in sufficient detail pertaining to the Design Specifications to enable Provider to create the appropriate design documents		X
7. Document and deliver Design Specifications	X	
8. Review and approve Design Specifications		X

3.1.2.4 Engineering/Development

Engineering/Development services are the activities associated with the engineering and development of the IT infrastructure, tools and utilities that enhance the IT Infrastructure. The following table identifies the Engineering/Development roles and responsibilities that Provider and the County will perform.

Table 5. Engineering/Development Roles and Responsibilities

Engineering/Development Roles and Responsibilities	Provider	County
1. Recommend Engineering/Development requirements and policies	X	
2. Review and approve Engineering/Development requirements and policies		X
3. Develop and document in the Procedures Manual Engineering/Development procedures that meet requirements and adhere to defined policies	X	
4. Develop and deliver Engineering/Development plans where there is an impact on County entities/facilities and/or other third-party agreements	X	
5. Perform engineering functions required to implement design plans for additional or new products and services	X	
6. Perform engineering functions required to implement and manage IT Infrastructure services on County owned/leased facilities	X	
7. Manage engineering/development efforts using formal project management tools and methodologies		X
8. Review and approve Engineering/Development plans and procedures		X

3.1.2.5 Integration and Testing

Integration and Testing services are the activities associated with ensuring that all individual IT components configured with or added to the IT infrastructure work together cohesively to achieve the intended results. The following table identifies the Integration and Testing roles and responsibilities that Provider and the County will perform.

Table 6. Integration and Testing Roles and Responsibilities

Integration and Testing Roles and Responsibilities	Provider	County
1. Define Integration and Testing requirements and policies		X
2. Develop and document in the Procedures Manual the Integration and Testing procedures that meet requirements and adhere to defined policies	X	
3. Review and approve Integration and Testing procedures		X
4. Manage integration test environment	X	
5. Maintain systems Software release matrices across development, QA, and production environments	X	
6. Validate and approve the Software release and version level		X

Integration and Testing Roles and Responsibilities	Provider	County
7. Conduct integration testing for all new and upgraded equipment, Software or services to include unit, system, integration and regression testing, as applicable	X	
8. Evaluate all new and upgraded IT Infrastructure components for compliance with County, regulations and procedures	X	
9. Assess and communicate the overall impact and potential risk to IT Infrastructure components prior to implementing changes	X	
10. Coordinate integration and testing activities with applications support	X	
11. Define User Acceptance Test (UAT) requirements and plans		X
12. Conduct User Acceptance Test (UAT) and document results		X
13. Stage new and upgraded equipment, Software or services to smoothly transition into existing environment	X	
14. Perform modifications and performance-enhancement adjustments to County system Software and utilities as a result of changes to architectural standards	X	
15. Test new releases of supported hardware and systems Software to ensure conformance with County SLRs	X	
16. Perform configuration management and change management activities related to Integration and Testing	X	

3.1.2.6 *Implementation and Migration*

Implementation and Migration services are the activities associated with the installation of new and upgraded IT components (e.g., hardware, Software) into the production environment. The following table identifies the Implementation and Migration roles and responsibilities that Provider and the County will perform.

Table 7. Implementation and Migration Roles and Responsibilities

Implementation and Migration Roles and Responsibilities	Provider	County
1. Define Implementation and Migration requirements and policies		X
2. Develop and document in the Procedures Manual the Implementation and Migration procedures that meet requirements and adhere to defined policies	X	
3. Review and approve Implementation and Migration procedures		X
4. Notify Provider of equipment migration and redeployment plans		X
5. Coordinate and review all Implementation and Migration plans and schedules with the County in advance in accordance with Change Management Policies	X	
6. Approve Implementation and Migration plans and schedules		X
7. Install new IT Infrastructure components and perform upgrades as a result of new and enhanced tools and technologies (e.g., hardware, systems Software, utilities, peripherals, configurations)	X	

Implementation and Migration Roles and Responsibilities	Provider	County
8. Coordinate Implementation and Migration support activities with County IT staff and the Help Desk	X	
9. Perform data migration per County requirements, (e.g., databases, repositories)	X	
10. Perform appropriate tests on all installs, moves, adds and changes	X	
11. Conduct User Acceptance Tests (UAT) and document results	X	
12. Support User Acceptance Tests (UAT)		X
13. Provide County IT technical staff and End-Users with training related to the implementation of new products and services	X	

3.1.2.7 *Environment and Facilities Support*

Environment and Facilities Support Services are the activities associated with maintaining environmental requirements at the County facilities. The following table identifies Environment and Facilities Support roles and responsibilities that Provider and the County will perform.

Table 8.   Environmental and Facilities Support Roles and Responsibilities

Environmental and Facilities Support Roles and Responsibilities	Provider	County
1. Recommend Environment and Facilities Support requirements and policies	X	
2. Review and approve Environment and Facilities Support requirements and policies		X
3. Develop and document in the Procedures Manual the Environment and Facilities Support procedures that meet requirements and adhere to defined policies	X	
4. Review and approve Environment and Facilities Support procedures		X
5. Monitor environmental systems (e.g., UPS) required to support IT Infrastructure components housed in County facilities (e.g., computer rooms)	X	
6. Develop and recommend improvement plans for County facilities as needed to maintain an effective and secure computing environment	X	
7. Approve the improvement plans		X
8. Coordinate the implementation of all approved upgrades and installations	X	
9. Coordinate County site activities of all personnel (i.e., Provider employees and others) working in equipment locations (e.g., equipment rooms)	X	
10. Ensure that facilities support activities conform to the requirements of the defined Change Management processes	X	

3.1.2.8 Training and Knowledge Transfer

Training and Knowledge Transfer Services consist of the following three types of training Provider will perform:

   a. Training for the improvement of skills through education and instruction for Provider's staff. Provider will participate in any pertinent initial and on-going training delivered by the County as required that would provide a learning opportunity about the County's business and technical environment

   b. Training for County technical staff for the express purpose of exploitation of the functions and features of the County computing environment. Delivery methods may include classroom style, computer-based, individual, or other appropriate means of instruction.

The following table identifies the Training and Knowledge Transfer roles and responsibilities that Provider and the County will perform.

Table 9. Training and Knowledge Transfer Roles and Responsibilities

Training and Knowledge Transfer Roles and Responsibilities	Provider	County
1. Define Training and Knowledge Transfer requirements and policies		X
2. Develop and document in the Procedures Manual, Training and Knowledge Transfer procedures that meet requirements and adhere to defined policies	X	
3. Review and approve Training and Knowledge Transfer procedures		X
4. Develop, implement and maintain a County accessible knowledge database/portal	X	
5. Develop and implement knowledge transfer procedures to ensure that more than one individual understands key components of the business and technical environment	X	
6. Prepare materials and deliver training to Provider's personnel on County business and technical environments		X
7. Participate in County delivered instruction on the business and technical environment	X	
8. Develop, document and deliver training to County support staff for ongoing provision of County services, including refresher courses as needed and instruction on new functionality	X	
9. Provide County and Provider support staff with training needed to remain current with systems, Software, features and functions for which IT Infrastructure support is provided in order to improve service performance	X	
10. Provide assistance to HR for New Employee orientation as it pertains to IT in the County.	X	
11. Develop training and knowledge transfer plan in the project plan		X
12. Approve training and knowledge transfer plan in the project plan		X
13. Provide technical training assistance and knowledge transfer to existing County support personnel, during deployment as requested	X	

Training and Knowledge Transfer Roles and Responsibilities	Provider	County
14. Provide End-User training content for County Applications		X
15. Review and validate training content		X
16. Provide continuing End-User training for improving "how-to-use" skills related to systems and applications	X	
17. Create and maintain County Training instances or clients as required by the County	X	
18. Provide Help desk agent training, including developing dialogue scripts	X	

3.1.2.9 Documentation

Documentation Services are the activities associated with developing, revising, maintaining, reproducing, and distributing IT Infrastructure services information in hard copy and electronic form. The following table identifies the Documentation roles and responsibilities that Provider and the County will perform.

Table 10. Documentation Roles and Responsibilities

Documentation Roles and Responsibilities	Provider	County
1. Recommend Documentation requirements and formats	X	
2. Approve Documentation requirements, formats and policies		X
3. Develop and document in the Procedures Manual the Documentation procedures that meet requirements and adhere to defined policies	X	
4. Provide County-specific operating requirements		X
5. Document standard operating procedures (e.g., boot, failover, spool management, batch processing, backup)	X	
6. Document policies, procedures, production & maintenance schedules and job schedules	X	
7. Provide output in agreed format for support of activities throughout the life cycle of services as specified in each Service Tower	X	
8. Recommend specifications and documentation format and content per requirements	X	
9. Approve documentation format and content		X
10. Provide system specifications and documentation	X	
11. Develop operational processing flow	X	
12. Provide system installation, support, configuration and tuning manuals	X	
13. Provide application hardware and system software requirements documentation	X	
14. Provide logical and physical data model	X	
15. Provide End-User documentation		X
16. Provide standard operating procedures	X	
17. Prepare updates and release notes	X	

Documentation Roles and Responsibilities	Provider	County
18. Deliver updates and release notes to End Users		X
19. Document version control for all documentation for which Provider is responsible	X	
20. Provide documented application disaster recovery process	X	
21. Approve documented application disaster recovery process		X
22. Approve documentation delivered		X

3.1.2.10 Operations and Administration

Operations and Administration Services are the activities associated with providing a stable IT infrastructure and effectively and efficiently performing those activities to ensure IT Services meet SLR targets and requirements. The following table identifies the Operations and Administration roles and responsibilities that Provider and the County will perform.

Table 11. Operations and Administration Roles and Responsibilities

Operations and Administration Roles and Responsibilities	Provider	County
1. Provide Operations and Administration requirements and policies, including schedules for the operation of County IT Infrastructure		X
2. Develop and document in the Procedures Manual the Operations and Administration procedures that meet requirements and adhere to defined policies	X	
3. Develop operational documentation (e.g., Run Books, Contact Lists, Operations scripts) that meets County requirements	X	
4. Review and approve Operations and Administration procedures and operational documentation		X
5. Identify and recommend Enterprise System Management tools to monitor the IT infrastructure	X	
6. Approve and provide enterprise System Management tools to monitor the IT infrastructure		X
7. Coordinate with the County to deploy enterprise IT Infrastructure management tools to monitor the operation of the infrastructure	X	
8. Install and configure enterprise IT Infrastructure management tools for a shared use environment. The Problems, issues and events are proactively identified, reported and resolved according to prescribed SLRs	X	
9. Perform event management monitoring of IT Infrastructure Services to detect abnormal conditions or alarms, log abnormal conditions, analyze the condition and take corrective action	X	
10. Manage hardware, Software, peripherals, services and spare parts to meet SLRs, minimize down time and minimize County resource requirements	X	
11. Interface with Help Desk and the County for Incident & Problem Management activities	X	

Operations and Administration Roles and Responsibilities	Provider	County
12. Provide Level 2 and Level 3 support as required	X	
13. Manage and coordinate subcontractors and third parties in order to meet Service and SLR requirements	X	
14. Develop and provide operational reports (Daily, Weekly, Monthly) that provide status of operational activities, production issues, and key operational metrics	X	
15. Review operational reports		X
16. Provide recovery and backup requirements and updates as they change		X
17. Manage backup media inventory (Tape, Disk, Optical and other media type) including the ordering and distribution of media	X	
18. Perform IT Infrastructure backups and associated rotation of media	X	
19. Provide exception report explaining why any backup failed and steps which will be taken to resolve current failure and prevent future failures	X	
20. Archive data media at a secure off-site location	X	
21. Ensure ongoing capability to recover archived data from media as specified (backwards compatibility of newer backup equipment)	X	
22. Test backup media to ensure incremental and full recovery of data is possible and ensure IT Infrastructure integrity as required or requested by the County	X	
23. Recover files, file system or other data required from backup media as required or requested by the County	X	
24. Conduct disaster recovery testing per policies and procedures	X	
25. Audit Operations and Administration polices for compliance with County security policies		X
26. Provide the County with a copy of or access to any vendor-supplied documentation (including updates thereto)	X	

3.1.2.11 Maintenance

Maintenance Services are the activities associated with the maintenance and repair of hardware, Software to include "break-and-fix" Services. Installed platform and product version levels are not to be more than one version behind the current commercial release, unless specified by the County. The following table identifies the Maintenance roles and responsibilities that Provider and the County will perform.

Table 12. Maintenance Roles and Responsibilities

Maintenance Roles and Responsibilities	Provider	County
1. Define Maintenance requirements and policies		X
2. Develop and document in the Procedures Manual the Maintenance procedures that meet requirements and adhere to defined policies	X	
3. Develop Maintenance schedules	X	

Maintenance Roles and Responsibilities	Provider	County
4. Review and approve Maintenance procedures and schedules		X
5. Update maintenance requirements and point-of-service locations		X
6. Ensure appropriate Maintenance coverage for all IT Infrastructure components, including coordinating with 3rd party vendors	X	
7. Provide maintenance and Break/Fix support in the County's defined locations, including dispatching repair technicians to the point-of-service location if necessary	X	
8. Perform diagnostics and maintenance on IT Infrastructure components including hardware, Software, peripherals, and special purpose devices as appropriate	X	
9. Install manufacturer field change orders, service packs, product patches, firmware, and Software maintenance releases, etc.	X	
10. Perform electronic Software distribution and version control	X	
11. Perform preventive maintenance according to the manufacturers' recommendations	X	
12. Conduct maintenance and parts management and monitoring during warranty and off-warranty periods	X	

3.1.2.12 Technology Refreshment and Replenishment

Technology Refreshment and Replenishment (TR&R) are the activities associated with modernizing the IT infrastructure on a continual basis to ensure that the IT Infrastructure components stay current with evolving industry standard technology platforms. The following table identifies the Technology Refreshment and Replenishment roles and responsibilities that Provider and the County will perform.

Table 13. Technology Refreshment and Replenishment Roles and Responsibilities

TR&R Roles and Responsibilities	Provider	County
1. Define TR&R life-cycle management policies, procedures and plans appropriate for support of County business requirements		X
2. Develop and document in the Procedures Manual the TR&R procedures and plans that meet requirements and adhere to defined policies	X	
3. Review and approve TR&R procedures and plans		X
4. Manage, maintain, and update approved TR&R policies, procedures, and plans	X	
5. Perform the necessary tasks required to fulfill the TR&R plans in accordance with the Change Management process	X	
6. Provide management reports on the progress of the TR&R plans	X	
7. Periodically review the approved TR&R implementation plans to ensure they properly support County business requirements		X

3.1.3   Service Delivery

The following table identifies the Capacity Management roles and responsibilities that Provider and the County will perform.

3.1.3.1 Service Level Monitoring and Reporting

Service Level Monitoring and Reporting Services are the activities associated with the monitoring and reporting of Service delivery with respect to SLRs. In addition, Provider shall report system management information (e.g., performance metrics, and system utilization) to the designated County representatives in a format agreed to by the County. The following table identifies the Service Level Monitoring and Reporting roles and responsibilities that Provider and the County will perform.

Table 14. Service Level Monitoring and Reporting Responsibilities

Service Level Monitoring Roles and Responsibilities	Provider	County
1. Define Service Level requirements		X
2. Perform Monitoring according to the guidelines established in the SLRs.	X	
3. Coordinate SLR monitoring and reporting with designated County representatives and third-party vendors	X	
4. Measure, analyze, and provide management reports on performance relative to SLRs	X	
5. Develop and deliver SLR improvement plans where appropriate	X	
6. Review and approve SLR improvement plans		X
7. Implement SLR improvement plans and report on results	X	
8. Review and approve SLR metrics and performance reports		X
9. Provide County electronic access to performance and SLR reporting and monitoring system	X	
10. Perform audits of SLR results		X
11. Assist in audits of SLR results	X	

3.1.3.2 IT Service Continuity and Disaster Recovery (DR) Services

IT Service Continuity and Disaster Recovery (DR) Services are the activities associated with providing IT Service Continuity and DR Services for prioritized County applications and their associated infrastructure (e.g., CPU, servers, data and output devices, End-User devices) and for. County applications and associated infrastructure will receive DR Services according to County Business Impact Analysis (BIA) Document. Provider must demonstrate that it will consistently meet County IT Service Continuity and Disaster Recovery Services requirements. The following table identifies Service Continuity and Disaster Recovery Services roles and responsibilities that Provider and the County will perform.

Table 15. IT Service Continuity and Disaster Recovery Services Roles and Responsibilities

IT Service Continuity and Disaster Recovery Services Roles and Responsibilities	Provider	County
1. Define IT Service Continuity and Disaster Recovery Services strategy, requirements and policies		X
2. Recommend best practices for IT Service Continuity and Disaster Recovery Services strategies, policies and procedures	X	
3. Document IT Service Continuity and Disaster Recovery Services procedures that adhere to County requirements and policies	X	
4. Review and approve IT Service Continuity and Disaster Recovery Services procedures		X
5. As needed, assist the County in other IT continuity and emergency management activities	X	
6. Develop and maintain a detailed DR plan to achieve IT Service Continuity and Disaster Recovery requirements, encompassing data back-ups, storage management and contingency operations that provide for the recovery of the County's systems within established recovery requirement timeframes	X	
7. Define data (File System, Database, Flat Files etc.) replication, backup and retention requirements		X
8. Establish processes to ensure DR plans are kept up to date and reflect changes in the County environment	X	
9. Review & approve DR plans		X
10. Establish DR test requirements		X
11. Perform scheduled DR tests per County policies	X	
12. Coordinate involvement of users for DR testing		X
13. Participate in DR tests		X
14. Track and report DR test results to the County	X	
15. Review & approve DR testing results		X
16. Develop action plan to address DR testing results	X	
17. Review and approve action plan		X
18. Implement action plan and provide ongoing status until completion	X	
19. Initiate the DR plan in the event of a County DR situation per the DR policies and procedures		X
20. Initiate the DR plan in the event of a Provider site DR situation and notify the County per DR policies and procedures	X	
21. Coordinate with the County during a Provider site DR situation per DR policies and procedures	X	

3.1.3.3 *Financial/Chargeback Management and Invoicing*

Financial/Chargeback Management and Invoicing Services are the activities associated with providing both data that enables the County to charge back its internal business units for usage

of IT Resources and accurate invoices that meet County requirements. The following table identifies the Financial/Chargeback Management and Invoicing roles and responsibilities that Provider and the County will perform.

Table 16. Financial/Chargeback Management and Invoicing Roles and Responsibilities

Financial/Chargeback Management and Invoicing Roles and Responsibilities	Provider	County
1. Define Financial/Chargeback Management and Invoicing requirements and policies		X
2. Develop and document in the Procedures Manual the Financial/Chargeback Management and Invoicing procedures that meet requirements and adhere to defined policies		X
3. Provide chargeback data and reports to enable the County to perform chargeback	X	
4. Review chargeback reports		X
5. Identify invoicing requirements		X
6. Document and maintain invoicing requirements		X
7. Issue invoices and/or journal transactions		X

3.1.4 Service Support

3.1.4.1 Incident & Problem Management

Incident and Problem Management Services are the activities associated with restoring normal Service operation as quickly as possible and to minimize any adverse impact on County business operations, thus ensuring that the best possible levels of Service Quality and Availability are maintained.

Problem Management also includes minimizing the adverse impact of Incidents and Problems on the business that are caused by errors in the IT infrastructure and preventing the recurrence of Incidents related to those errors. In order to achieve this goal, Problem Management seeks to get to the Root Cause of Incidents and then initiate actions to improve or correct the situation. The following table identifies the Incident and Problem Management roles and responsibilities that Provider and the County will perform.

Table 17. Incident & Problem Management Roles and Responsibilities

Incident and Problem Management Roles and Responsibilities	Provider	County
1. Define Incident and Problem Management requirements and polices		X
2. Develop and document in the Procedures Manual the Incident and Problem Management procedures that meet requirements and adhere to defined policies	X	
3. Review and approve Incident and Problem Management requirements and polices		X
4. Establish operations and service management Quality assurance and control programs	X	

Incident and Problem Management Roles and Responsibilities	Provider	County
5. Review and approve operations and service management Quality assurance and control programs		X
6. Execute Quality assurance and Quality control programs	X	
7. Coordinate user support activities with the Help Desk	X	
8. Establish Incident/Problem classification by priority		X
9. Establish Incident/Problem workflow, escalation, communication and reporting processes that help to achieve the SLR requirements	X	
10. Review and approve Incident/Problem workflow, escalation, communication and reporting processes		X
11. Provide, configure, and operate Incident and Problem management system that tracks Incidents across all IT towers	X	
12. Provide County access and input capabilities to Incident and Problem tracking system to allow for Incident/Problem monitoring and ad hoc reporting	X	
13. Manage entire Incident/Problem lifecycle including detection, diagnosis, status reporting, repair and recovery	X	
14. Ensure Incident Resolution activities conform to defined Change Management procedures	X	
15. Manage efficient workflow of Incident resolution, including the involvement of third-party Providers (e.g., vendors, public carriers, ISP)	X	
16. Coordinate and take ownership of Problem resolution with the County and third parties (e.g., public carriers, ISP)	X	
17. Periodically review the state of open Problems and the progress being made in addressing Problems		X
18. Participate in Problem review sessions and provide listing and status of Problems categorized by Problem impact	X	
19. Authorize close of County-initiated Priority 1 and 2 Incidents		X
20. Identify possible enhancement opportunities for improved operational performance and potential cost savings	X	
21. Review and approve projects to implement enhancement opportunities		X

3.1.4.2 Root Cause Analysis

Provider will develop, implement, and maintain a Root Cause Analysis (RCA) process and perform the activities required to diagnose, analyze, recommend and take corrective measures to prevent recurring Problems and/or trends. The following table identifies Root Cause Analysis roles and responsibilities that Provider and the County will perform.

Table 18. Root Cause Analysis Roles and Responsibilities

Root Cause Analysis Roles and Responsibilities	Provider	County
1. Define RCA requirements and policies		X
2. Develop and document in the Procedures Manual the RCA procedures that meet requirements and adhere to defined policies	X	
3. Review and approve RCA procedures		X
4. Conduct proactive trend analysis to identify recurring Problems	X	
5. Track and report recurring Problems or failures and provide business impact analysis of Problems to the County	X	
6. Recommend solutions to address recurring Problems or failures	X	
7. Review and approve solutions to address recurring Problems or failures		X
8. Flag all Priority Levels 1 and 2 Incidents that require Root Cause Analysis	X	
9. Identify root cause of Priority Levels 1 and 2 Incidents and recommend appropriate resolution action	X	
10. Review and approve solutions to address Priority Levels 1 and 2 Incidents		X
11. Provide status report detailing the root cause of and procedure for correcting recurring Problems and Priority Levels 1 and 2 Incidents until closure as determined by the County	X	

3.1.4.3 Configuration Management

Configuration Management Services are the activities associated with providing an integrated set of IT Infrastructure components that work together with reliability, consistency, predictability and manageability. IT Infrastructure configurations need to be modeled and tracked in order to account for all IT assets, provide accurate information on configurations and provide a sound basis for Incident, Problem, Change and Release Management. The following table identifies the Configuration Management roles and responsibilities that Provider and the County will perform.

Table 19. Configuration Management Roles and Responsibilities

Configuration Management Roles and Responsibilities	Provider	County
1. Define Configuration Management requirements and policies		X
2. Develop and document in the Procedures Manual the Configuration Management procedures that meet requirements and adhere to defined policies	X	
3. Review and approve Configuration Management procedures and processes		X
4. Recommend Configuration Management tool set	X	
5. Approve and Provide Configuration Management database and tools		X
6. Establish and maintain Configuration Management database and tools	X	

Configuration Management Roles and Responsibilities	Provider	County
7. Enter/upload configuration data into configuration database	X	
8. Establish process interfaces to Problem & Incident management, change management, technical support, maintenance and asset management processes	X	
9. Establish appropriate authorization controls for modifying configurations	X	
10. Determine impact of configuration changes on Software licensing	X	
11. Establish guidelines for physical and logical separation between development, test and production and the process for deploying and back out of configuration changes	X	
12. Establish configuration Baselines as reference points for rebuilds and provide ability to revert to stable configuration states	X	
13. Establish process for verifying the accuracy of configuration data, adherence to configuration management process and identifying process deficiencies	X	
14. Provide configuration management reports as required and defined by the County	X	
15. Audit configuration management process and accuracy of configuration data		X

3.1.4.4 Change and Release Management

Change Management Services are activities associated with ensuring that standardized methods and procedures are used for efficient and prompt handling of all changes, in order to minimize the impact of change upon Service Quality. Change Management covers all aspects of managing the introduction and implementation of changes affecting the IT Infrastructure, including changes to management processes, tools, and methodologies designed and utilized to support the IT Infrastructure. The Change Management process includes the following sub-processes:

- Request process
- Recording/Tracking process
- Prioritization process
- Responsibility Assignment process
- Impact/Risk Assessment process
- Review / Approval process
- Implementation process
- Verification (test) process
- Release process
- Closure process

Release Management Services are activities associated with bundling multiple changes into one, organized release set to improve manageability of changes. Release Management ensures

that all aspects of a release, both technical and non-technical are considered together and planned methodically to result in successful, non-disruptive implementation. These activities ensure that only correct, authorized and tested versions are installed and that changes are traceable and secure.

The following table identifies Change and Release Management roles and responsibilities that Provider and the County will perform.

Table 20. Change and Release Management Roles and Responsibilities

Change and Release Management Roles and Responsibilities	Provider	County
1. Define Change and Release Management requirements and policies		X
2. Develop and document in the Procedures Manual the Change and Release Management procedures that meet requirements and adhere to defined policies	X	
3. Review and approve Change and Release Management procedures		X
4. Secure and maintain master copies of new Software versions in a Software library and update configuration databases	X	
5. Establish change classifications (impact, priority, risk) and change authorization process		X
6. Administer the version control process as it relates to Release management	X	
7. Review release notes and establish plans (e.g., back out plan, go/no go decision) as appropriate to meet the needs of the County	X	
8. Document and classify proposed changes to the environment including cost and risk impact, back-out plans and Release Management plans for major changes	X	
9. Develop and maintain a schedule of planned changes and provide to the County for review	X	
10. Authorize and approve scheduled changes		X
11. Schedule and conduct Change and Release Management meetings to include review of planned changes and results of changes made	X	
12. Provide change documentation as required	X	
13. Coordinate notification of affected County clients of change timing and impact	X	
14. Implement change and adhere to detailed release plans	X	
15. Modify configuration database, asset management records, and service catalog (if applicable) to reflect changes implemented	X	
16. Verify that change met objectives, coordinate and resolve negative impacts	X	
17. Monitor changes and report results and impacts of changes	X	
18. Conduct User Acceptance Tests (UATs) as required		X
19. Perform Quality control audits and review change control results		X
20. Assist in Quality control audits	X	

Change and Release Management Roles and Responsibilities	Provider	County
21. Recommend procedures associated with County authorized Project Change Requests	X	
22. Review and approve the Project Change Request Process		X
23. Authorize change in project scope and design		X
24. Review maintenance production release plan and schedules		X
25. Manage all Service Requests to production		X
26. Ensure custom code approvals are received from the designated County IT personnel	X	
27. Assist the County with documentation and communicate change management processes and procedures	X	
28. Participate in scheduling releases	X	
29. Manage documentation changes to the underlying application development environment via use of library management version control and turnover management as described above	X	
30. Provide impact analysis associated with proposed project changes		X
31. Manage changes to the baseline, project plan, or committed maintenance or enhancement dates		X
32. Prepare County system change requests	X	
33. Approve system changes via the County Change Management Group		X

3.1.4.5 Account Management

Account Management services are the activities associated with the ongoing management of the service environment. The following table identifies Account Management roles and responsibilities that Provider and the County will perform.

Table 21. Account Management Roles and Responsibilities

Account Management Roles and Responsibilities	Provider	County
1. Define Account Management requirements and policies		X
2. Develop and document in the Procedures Manual Account Management procedures that meet requirements and adhere to defined policies	X	
3. Review and approve Account Management procedures		X
4. Develop a detailed "IT" service catalog which details services offered including all service options, pricing, installation timeframes, order process (new, change & remove service) and prerequisites	X	
5. Develop a service ordering process that clearly defines how to order, change, or delete services	X	
6. Recommend criteria and formats for Administrative, Service Activity and Service Level reporting	X	

Account Management Roles and Responsibilities	Provider	County
7. Review and approve criteria and formats for Administrative, Service Activity and Service Level reporting		X
8. Develop and implement Customer Satisfaction program for tracking the Quality of service delivery to End-Users		X
9. Provide reporting (e.g., statistics, trends, audits)	X	

3.1.4.6 *Monitoring, Reporting and Review*

Monitoring, Reporting and Review Services are the activities associated with the ongoing health checks, status reporting, and problem management (ongoing surveillance, tracking, escalation, resolution, and tracking of problems) of application support activities. Problem management activities described within this document require the Provider to provide Tier 2 technical support in coordination with the Help Desk.

The following table identifies the Monitoring, Reporting and Review roles and responsibilities that Provider and the County will perform.

Table 22. Monitoring, Reporting and Review Roles and Responsibilities

Monitoring, Reporting and Review Roles and Responsibilities	Provider	County
1. Provide, maintain and update project plans, identifying critical path dependencies, major critical milestones, project deliverables, "project earned value" as mutually agreed upon by the Parties for selected projects.		X
2. Provide weekly status reviews and progress reports for selected mutually agreed to projects	X	
3. Provide monthly service-level performance reports against each Service Level Agreement, including trends for each and summary view	X	
4. Provide monthly milestone achievement review and performance reports	X	
5. Provide mutually agreed to reports to enable invoice reconciliation	X	
6. Provide mutually agreed to reports that capture service requests demands and measure of ability to satisfy demand	X	
7. Provide mutually agreed reports that represent general health of environments as well as reports that represent demand fulfillment in End-User terms (e.g. defect corrections/change requests that have slipped against commitment, backlogged defects/change requests, Priority 1, 2, and Priority 3 defects).	X	
8. Measure and analyze performance relative to requirements	X	

3.2 Exclusions

The following items are specifically excluded from this statement of work:

a. Data Communications/LAN/WAN

b. Data Security

c. Voice over IP

d. Project Management

e. Asset Control/Management

4.0 Service Management

4.1 Objectives

4.2 Definitions

Attachment A2 (SOW Definitions) of the Agreement provides a list of terms that apply to this SOW and the following Service Levels.

4.3 Service Level Requirements (SLRs)

The following service levels are suggested as commercially reasonable efforts. All times referenced are in Pacific Time.

Table 23.   Incident Resolution SLRs

Definition	Time to resolve Incidents following responses to different Incident priority classifications. Each IT Services Tower SOW categorizes Incidents according to the Incident Resolution Priorities listed below. Service Tower Incident categorizations are referenced in the Service Management section of each Service Tower SOW.

Incident Resolution SLRs			
Incident Resolution	**Service Measure**	**Performance Target**	**SLR Performance %**
Priority 1	Time to Resolve	<2 hours	98.0%
Priority 2	Time to Resolve	<4 hours	95.0%
Priority 3	Time to Resolve	<8 hours	95.0%
Priority 4	Time to Resolve	Next Business Day or as prioritized by the County	95.0%
Root Cause Analysis	Time to Report	Within 24 business hours of Incident Resolution	95.0%
	Formula	Number of requests completed within Performance Target/Total of all requests occurring during Measurement Interval	
	Measurement Interval	Measure Weekly	
	Reporting Period	Report Monthly	
	Measurement Tool	TBD	

Table 24.   Priority Levels

Priority Level	Description
1 - Emergency/Urgent	The Problem has caused a complete and immediate work stoppage affecting a primary business process or a broad group of users such as an entire department, floor, location, or external users. No work around available. Examples: Major application Problem (e.g., IFAS, CLETS, etc.) Severe Problem during critical periods (e.g., Payroll cycle) Security Violation (e.g., denial of service, widespread virus, etc.) Problems effecting public safety systems assumed to be priority 1 unless determined otherwise.
2 - High	A business process is affected in such a way that business functions are severely degraded, multiple users are impacted or a key user is affected. A Workaround may be available; however, the Workaround is not easily sustainable. Examples: Major application (e.g., Exchange) Key users (e.g., Supervisors, Department Head)
3 - Medium	A business process is affected in such a way that certain functions are unavailable to End-Users or a system and/or service is degraded. A Workaround may be available Examples: Telecommunication Problem (e.g., Blackberry, PBX digital/analog card) Workstation Problem (e.g., hardware, Software)
4 - Low	An Incident that has little impact on normal business processes and can be handled on a scheduled basis. A Workaround is available. Examples: User requests (e.g., system enhancement) Peripheral Problems (e.g., network printer) Preventative Maintenance

4.3.1   Backup and Restore Requirements

Provider shall implement and maintain backup and restoration capabilities for all Service Tower data, applications and component configurations. Provider shall perform 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 Cross Functional Restoration SLRs listed below. Service tower applications requiring scheduled backups are referenced in the Service Environment section of each Service Tower SOW.

Table 25.   Backup Schedule

Backup Schedule and SLRs						
Type of Backup	**Backup Frequency**	**Storage Site**	**Retention/Purge Period** **Standard**		**Target**	**SLR Performance %**
Incremental	Daily	Off-site	35 days		Backup Frequency	99.9% (See NOTE 1)
	Database					

Backup Schedule and SLRs						
Type of Backup	Backup Frequency	Storage Site	Retention/Purge Period Standard		Target	SLR Performance %
Full (Backup)	Weekly	Off-site	5 weeks		Backup Frequency	99.9% (See NOTE 1)
Full (Archive)	Monthly	Off-site	Indefinite		Backup Frequency	99.9% (See NOTE 1)
All					Quarterly Test each type of backup	100%
NOTE 1: SLR Performance Requirement shall be 99.0% until an Enterprise Backup solution is implemented. At that time, the SLR Performance Requirement shall become 99.9% as indicated.						

Table 26.   Restoration SLR

Restoration Services Table			
Restoration Type	Service Measure	Performance Target	SLR Performance %
Restore Requests for production data	Response Time Data 1 week old or less	≤ 3 hours from County request	99.0% of the time
Restore Requests for recovery of test data or data volume back-ups	Response Time Data 1 week old or less	≤ 8 hours from County request	99.0% of the time
Restore Requests for recovery of data or data volume back-ups	> than 1 week old	Commence restore within 3 Business Days	99.0% of the time
	Formula	Number of requests completed within Performance Target /Total of all requests occurring during Measurement Interval	
	Measurement Interval	Measure Weekly	
	Reporting Period	Report Monthly	
	Measurement Tool	TBD	

4.4   Reports

Provider shall provide written reports to the County regarding Provider's compliance with the SLRs specified in this Section and other management reports. Reports are required per the following:

Table 27.   Cross Functional Services Reports

Report Description	Timing
TBD	

5.0   List of Referenced MSA Schedules

SOW APPENDIX	DESCRIPTION
A.1	Solano Work in Progress
A.2	Solano Future Initiatives
MSA SCHEDULE	**DESCRIPTION**
Modified Schedule 2B	Data Center Services SOW
Modified Schedule 2C	Desktop Support Services SOW
Schedule 2D	Server Administration Services SOW
Modified Schedule 2E	Help Desk Services SOW
Modified Schedule 2F	Application Services SOW
Attachment A2	SOW Definitions