ATTACHMENT A.1
TASKS AND DELIVERABLES
FOR
NETWORKED LOGGING RECORDER SYSTEM

Attachment A.1 – Tasks and Deliverables
Networked Logging Recorder System

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TASKS AND DELIVERABLES

Unless specified otherwise, all Tasks and Subtasks described in this Attachment A.1 (Tasks and Deliverables) to Exhibit A (Statement of Work) to the Contract, must be performed by Contractor. Contractor must prepare and deliver all Deliverables described in this Attachment, using the Deliverable numbers and titles indicated. The process for receiving, reviewing, and accepting the Deliverables is provided in Attachment A.2 (Deliverable Acceptance Process), to Exhibit A (Statement of Work) to the Contract.

1.0 Task 1 Project Planning – Project Control Document

Each Task to be performed by both Contractor and County staff must be specifically addressed in a Project Control Document (PCD). The PCD must include the general order in which the Tasks and Subtasks will be performed (some Tasks may be conducted in parallel) and the order in which the Deliverables must be produced.

1.1 Develop Project Control Document

Contractor must develop a PCD, and provide it to County Project Manager within two weeks following the Contract effective date, or as agreed-to by the parties. Unless otherwise agreed-to by the parties, or required by the County, the contents of the PCD must include at a minimum the following:

1.1.1 Project Scope, Objective, and Critical Success Factors

Contractor must develop a brief statement of the scope, objectives, and critical success factors of the Project. Contractor must review the Project scope, objectives, and critical success factors with County Project Manager, and subsequently make any agreed-to updates/revisions.

1.1.2 Project Organization, Roles and Responsibilities

Contractor must develop a hierarchical structure depicting the organization of the Project team (including both Contractor and the County), and their reporting relationships, including a description of the primary roles and responsibilities of the Project team members and any relevant organizational relationships. Contractor must review the Project organization, roles, and responsibilities with County Project Manager, and subsequently make any agreed-to updates/revisions.

1.1.3 Documentation Requirements

The final form and format of all Documentation and certifications required by Contractor in this Attachment A.1 (Tasks and Deliverables) must be as directed by County Project Manager. Contractor must review the Documentation requirements with County Project Manager and make any agreed-to updates/revisions.

1.1.4 Contractor Assumptions, Updated

All Contractor assumptions specified in Contractor's business proposal, or otherwise agreed to by the parties, must be updated by Contractor and reviewed and approved by County Project Manager. Notwithstanding the

above, County Project Manager will have sole authority to clarify the County's position regarding Contractor's assumptions. Contractor's revised assumptions must be documented and approved by County Project Manager.

1.1.5 County Assumptions, Updated

All County assumptions specified in the Contract or otherwise agreed to by the parties must be reviewed by Contractor. Any issues documented by Contractor will be reviewed by County Project Manager. Notwithstanding the above, County Project Manager will have sole authority to clarify the County's position regarding the County's assumptions. Contractor must document the County's revised assumptions.

1.1.6 Communications Plan

Contractor must develop a communication plan which describes the primary means of communication that will be used throughout the Project among team members. In addition, the plan must discuss document sharing and management. Contractor must review the Communications Plan with County Project Manager and make any agreed to updates/revisions.

1.1.7 Staffing Plan

Contractor must develop a staffing plan which describes how they will meet staffing needs throughout the entire Term of the Contract, as specified in Exhibit A (Statement of Work) to the Contract. The County's expectation is that Contractor's staffing during the various stages of Project implementation and Maintenance and Support (M&S) will differ, excluding Contractor Project Director, Project Manager and other key management positions.

1.1.8 Risk Identification and Management Plan

Contractor must develop a Risk Identification and Management Plan which must include a description of the risk management process, including a tracking mechanism for potential Project risks, the probability of those risks occurring, potential impact of those risks and risk mitigation strategies. Contractor must review the risk identification and management plan with County Project Manager and make any agreed to updates/revisions.

1.1.9 Quality Control / Management Plan

Contractor must develop a quality control and management plan to assure the County a consistent high level of Service throughout the entire Term of the Contract. Contractor must review the quality control and management plan with County Project Manager and make any agreed to updates/revisions.

1.1.10 Detailed Work Plan

a. Contractor must develop a Detailed Work Plan for all Tasks detailed in this Attachment A.1 (Tasks and Deliverables) up to Final System Acceptance, including:

   i. A detailed narrative description of Project Tasks with roles and responsibilities of Project team members (Contractor and the County) by Task, Subtask, and timeframe to complete each Task and any dependencies on other Tasks,

   ii. Locations of Work, if applicable, and

   iii. Work Breakdown Structure (WBS) and Project schedule – The WBS and Project schedule must be constructed in Microsoft Project (Tracking Gantt Chart format) and include, at a minimum, the following:

      - Tasks,
      - Subtasks,
      - Deliverable Number,
      - Description,
      - Due date,
      - Milestones achieved,
      - Pay points,
      - Task relationships including where applicable finish to start (FS),start to start (SS), finish to finish (FF), and start to finish (SF), critical path,
      - Associated or dependent Deliverable,
      - Timeline, and
      - Any other items reasonably required by the County under the Contract.

b. Contractor must prepare the WBS so that every Task's start/end dates are calculated by Task duration and Task predecessor(s). Work breakdown of Tasks must include the County's review and approval process of all Contractor's Documentation.

c. Once approved by County Project Manager, the Detailed Work Plan must be baselined, with two additional 'actual start' and 'actual end' dates columns for monitoring each Task/Subtask's progress.

d. Contractor must provide the WBS as both a Microsoft Project file and PDF file.

1.1.11 Implementation Assessment Document, Draft

The Implementation Assessment Document (IAD), as delivered with the PCD, is considered a draft document that will be updated upon completion of Task 5 (Implementation Assessment Document) of this Attachment A.1

(Tasks and Deliverables). The IAD must include Contractor's draft baseline strategies covering the following topics:

a. Software Strategy – Configuration/Customization approach,

b. Hardware Strategy – Contractor's Hardware deployment approach,

c. Cloud Backup Strategy

d. Test Strategy,

e. System Interface Strategy,

f. Security Strategy,

g. Data Conversion Strategy,

h. Report Design Strategy,

i. Business Continuity Strategy,

j. Documentation Strategy,

k. Training Strategy, and

l. Transition to Production Strategy.

1.1.12 Preventive Maintenance Program

Contractor must develop the Preventive Maintenance program in consultation with County Project Manager. The program must, at a minimum, address the requirements outlined in Paragraphs 3.1 (System Environments) and 3.2 (Application Software) of Exhibit C (Service Level Agreement) to the Contract to assure the County a consistently high level of Hardware and Software operations throughout the entire Term of the Contract.

1.1.13 Technology Refresh Implementation Strategy

Contractor must develop a Technology Refresh Implementation Strategy in consultation with County Project Manager. The strategy must be devised to minimize disruption to County operations.

Deliverable 1 – Completed Project Control Document

a. Project Control Document – DRAFT

b. Project Control Document – FINAL

Deliverable 1, the Project Control Document, including all attachments, must be reviewed and approved in accordance with the document review process described in Attachment A.2 (Deliverable Acceptance Process) to Exhibit A (Statement of Work) to the Contract.

2.0 Task 2 Ongoing Project Management

Throughout the entire Term of the Contract, under the direction of County Project Manager, Contractor must apply requisite technical and management skills and

techniques to assure satisfactory, timely completion of Project Tasks and Deliverables, and establish a Project control and reporting system which will provide routine and realistic assessments of progress against the approved PCD's Detailed Work Plan. Contractor must competently manage Project activities and resources, and track Project status, including:

2.1 Participate in Ongoing Monthly Project Management

2.1.1 Initiate Project

Within two weeks following the effective date of the Contract, Contractor must review with County Project Manager the Project governance structure (e.g., Project management team, executive steering committee, and advisory committee, etc.), as well as planning and conducting Project kick-off presentations for:

a. The County's Administration,

b. Project team and stakeholders, and

c. Executive steering committee (if requested by County Project Director).

Contractor Project Director and Contractor Project Manager must attend all Project kick-off meetings. The Department will conduct County's Administration meeting. Contractor must plan for and conduct all other kick-off meetings, as applicable. County Project Manager will advise Contractor if subsequent meetings after the Project kick-off are required (e.g., executive steering committee).

Contractor must create and provide tailored presentation slides and handouts, as directed by County Project Manager. Contractor must provide County Project Manager with presentation materials three Business Days prior to each scheduled kick-off meeting, and update the materials as directed by the County. Contractor must document the outcome of each Project kick-off meeting for County Project Manager's review and approval, and incorporate any new and County-approved information into the PCD.

2.1.2 Participate in Weekly Status Meetings

a. Contractor must attend and participate in weekly status meetings with County Project Manager and other stakeholders. Unless otherwise approved by County Project Manager, the weekly status meetings will be held in-person and on-site. Contractor technical staff may attend the weekly status meeting via video conference. County Project Manager may decide to cancel a particular week's meeting at his or her discretion.

b. Contractor must prepare agendas for the weekly status meetings, with the advice and consent of County Project Manager. Contractor must provide County Project Manager the meeting agenda and handouts at least two Business Days prior to the scheduled meetings, and make any updates as directed by the County. Contractor must be prepared to discuss, in detail, the status of the Project and any major issues.

c. Contractor must document meeting minutes of major discussion points, action items decisions, and the rationale for each. The document must be in a form and format as approved by County Project Manager. Contractor must deliver the meeting minutes document to County Project Manager no later than two Business Days after each meeting. County Project Manager will review and approve the minutes.

2.1.3 Monthly Status Reports and Meetings

Contractor Project Director and Project Manager must attend monthly steering committee meetings. Contractor Project Director must submit a Monthly Status Report as detailed below.

a. Contractor Project Manager must draft agendas for these meetings, with the advice and consent of County Project Manager, including a written status report summarizing progress against the approved Detailed Work Plan [refer to Paragraph 1.1.10 (Detailed Work Plan) above], together with the most current version of the Issue Tracking Log [refer to Paragraph 2.1.5 (Issue Tracking Log (ITL) Documentation, Escalation, and Resolutions) below]. Contractor must provide County Project Manager the meeting agenda and handouts at least two Business Days prior to the scheduled meetings, and update them as directed by the County.

b. Contractor must provide progress briefings at these meetings. The report must cover all activities for the preceding month. The first monthly report is due one calendar month following the Contract's effective date, unless prior approval for an extension is granted by County Project Manager.

c. Contractor must take and maintain minutes of major discussion points, decisions, action items, and the rationale for each.

d. Contractor must submit the monthly status report to County Project Manager for review and approval, three Business Days prior to distribution. County Project Manager will review and approve all monthly status reports.

2.1.4 Project Review Meetings

Contractor must attend all Project review meetings, as determined by County Project Director and the Department's Office of Technology Planning (OTP).

2.1.5 Issue Tracking Log (ITL) Documentation, Escalation, and Resolutions

Contractor must develop an ITL for tracking Project issues.

a. The ITL, like the PCD, is a living document requiring maintenance and frequent updates. Contractor must ensure that the ITL is updated as needed. Authorized members of the County and Contractor Project teams will have access to, and be able to print information from the ITL.

b. Contractor must submit all updates to the ITL to County Project Manager for review and approval prior to distribution to Project team.

2.1.6 Amendments and/or Change Notices

Any modifications affecting Project administration, Project scope, cost, timing, or risk may require the County approval via Amendments and/or Change Notices as set forth in Paragraph 10.1 (Amendments and Change Notices) of the Contract. Contractor, at County Project Manager's direction, must develop required components (e.g., quotations, specifications) of the Amendments and/or Change Notices, as applicable, at no cost to the County.

2.1.7 Maintain the PCD

Contractor must timely update and maintain the PCD, including the Detailed Work Plan in Microsoft Project as Tasks and Deliverables are completed and/or modified.

2.1.8 Failure to Maintain PCD

County Project Director, with sole discretion, may suspend all Work and initiate a formal Project Review Meeting for Contractor's failure to maintain the PCD. The Project Review Meeting will be conducted by the Department's OTP in consultation with County Counsel and County Project Director, in accordance with Paragraph 6.0 (Project Review) of Exhibit A (Statement of Work) to the Contract.

2.1.9 Contractor's preparation for and attendance at all required meetings, including all travel related expenses, will be provided at no additional cost to the County.

Deliverable 2 – Ongoing Project Management

Contractor is responsible for Project management throughout the entire Term of the Contract, as part of their business commitment and activities to/with the County. All Project management Documentation under this Task must be reviewed, approved, and accepted by County Project Manager.

3.0 Task 3 Requirements Review and Demonstration / Gap Analysis

The Functional and Technical Requirements (Requirements) review and resultant GAP analysis determines the degree of "fit" between Contractor's Proposed COTS software and the County's Requirements. The County will provide the facilities for conducting the Requirements review, demonstration, and GAP analysis sessions.

3.1 Subtask 3.1 **–** Review Requirements with Key Users

The Solution Requirements will be reviewed by Contractor in conjunction with County Project Manager and key Users identified by County Project Manager.

3.1.1 Contractor must conduct no less than three four-hour User sessions, and no less than four four-hour technical feedback sessions to ensure the accuracy and completeness of Contractor's proposed COTS software's

specifications. Participants for these sessions will be identified and provided by County Project Manager.

3.1.2 Inconsistencies in the Requirements resulting from the feedback sessions must be documented by Contractor in a Requirements review report that will be reviewed by County Project Manager. The requirements review report must:

a. List all Requirements where there is an issue/incongruence,

b. Document the discussion about each issue,

c. Document the resolution for each issue and where applicable, the updated Requirement, and

d. Provide a detailed impact statement for each issue.

3.1.3 Inconsistencies that impact the Project must be identified by Contractor and County Project Manager, and reviewed by County Project Director.

3.1.4 Inconsistencies that change the Scope of Work or increase cost must be reviewed by County Project Director, OTP, County Chief Information Officer (CIO), Department's Contracts Unit, and County Counsel to determine the severity of the impact.

3.1.5 Inconsistencies, at the discretion of OTP, may trigger a Project Review of the Solution Requirements.

3.1.6 Upon resolution of the inconsistencies, Contractor must create an updated Solution Requirements document, as determined by County Project Manager.

Deliverable 3.1 – Requirements Review

a. Requirements Reviewed

b. Updated Requirements Document – DRAFT

c. Updated Requirements Document – FINAL DRAFT

Deliverable 3.1, (Requirements Review) will be reviewed and approved in accordance with the document review process described in Exhibit A (Statement of Work) to the Contract.

3.2 Subtask 3.2 **–** Demonstration and GAP Analysis

Contractor must conduct a GAP analysis which must include, where applicable, prototyping to assess the fit between Contractor's proposed COTS software baseline functionality and the updated Solution Requirements document – FINAL DRAFT in Deliverable 3.1 (Requirements Review) above.

3.2.1 Establish a Review / Demonstration Environment

Contractor must create and configure an NLRS demonstration environment. Contractor must provide all Hardware and Software for this demonstration environment at no cost to the County, configured at CFMB Sheriff's

Communication Center (SCC) location, Contractor's data center, or CJIS-compliant Cloud. Contractor must be prepared to accommodate a minimum of six subject-matter-expert (SME) GAP-analysis participants during the NLRS demonstration. NLRS demonstration environment components may include, but are not limited to, the following:

a. Hardware (server, server racks, etc.),

b. Software (Operating System, database management system (DBMS), Contractor's Proposed COTS software, and any Third-Party Software),

c. Client software and access to the service for the Project team and stakeholders,

d. A representative sample of County data (NIST format) to support the demonstration and GAP analysis, as agreed to by the parties,

e. Audio/visual tools, as necessary,

f. Network connections, as applicable, and

g. User manuals and training materials.

3.2.2 Conduct Product Training

Contractor must provide hands-on training on Contractor's proposed COTS software, which will be the basis of this GAP Analysis Task. County Project Manager will identify the GAP analysis participants receiving hands-on product training, not to exceed ten Users including subject-matter experts (SMEs). The purpose of the product training is to familiarize Solution Requirements reviewers and GAP-analysis participants with the general navigation, terminology and functionality of Contractor's Proposed COTS software. Hands-on training must include at a minimum:

a. Solution overview and navigation,

b. System concepts and terminology,

c. Functional overview of each Solution module to be reviewed, and

d. Training materials and exercises.

3.2.3 Develop Demonstration / GAP Analysis Scripts

3.2.3.1 Three weeks prior to the GAP analysis, the County will provide Contractor with the County's business scenarios [refer to Paragraph 3.2.1(d) above]. Contractor must prepare for the GAP analysis sessions by developing detailed demonstration/GAP analysis scripts.

Contractor must draft an accompanying script summary document which:

a. Describes County-provided business scenarios,

b. Describes the script(s) for each business scenario,

c. Describes how the scripts are organized into functional areas,

d. Briefly describes each functional area, and

e. Provides a numbering convention used for the scripts.

3.2.3.2 The demonstration/GAP analysis scripts Documentation must be designed to:

a. Facilitate a detailed step-by-step walkthrough of the County's business scenarios using Contractor's proposed COTS software,

b. Demonstrate how Contractor's proposed COTS software will be used to support the County's detailed business scenarios,

c. Confirm and validate the County's business, Interface, reporting, and Data Conversion requirements, and

d. Identify any additional functional GAPs, if any, resulting from the step-by-step walkthrough of the County's business scenarios.

3.2.3.3 Contractor's demonstration session script meetings, with accompanying agenda(s), may be divided by the NLRS Solution's Requirements categories (e.g., voice radio, voice recorder, Text-to-9-1-1 telephone transmissions, audio, Rapid SOS, CAD and RMS interface, GEO-mapping etc.), as mutually agreed upon by Contractor and the County. Multiple demonstrations may be conducted to cover all of the NLRS Solution's functionality. County Project Manager and Contractor Project Manager will mutually agree upon each session's demonstration content and duration, covering, at minimum, the following:

a. Introductory overview and high-level navigation of the COTS software features and functions,

b. Solution Requirements overview,

c. How the proposed COTS software will meet the County's Requirements and the County's business scenarios,

d. Contractor concepts and terminology,

e. Functional overview of each software module to be reviewed, as applicable,

f. Contractor's solution for closing each identified GAP between the proposed COTS software and the County's Solution Requirements,

g. Contractor concepts and vision for each Interface to be developed, and

h. GAP analysis participants' written feedback on issues, concerns, and recommendations.

3.2.3.4 At least three Business Days prior to the scheduled demonstration and GAP analysis meeting(s), Contractor must provide County Project Manager the draft agenda, presentation scripts and any other handouts, and if necessary update documents as directed by the County.

3.2.4 Conduct Contractor's Proposed COTS Software demonstration/GAP Analysis Sessions

Contractor must plan and conduct the NLRS Solution's demonstration/GAP analysis sessions, which includes hands-on use by the designated GAP analysis participants. Contractor must document session results and submit the results to County Project Manager no later than three Business Days after completion of each session. Upon completion of all sessions, Contractor must leave the installed demonstration environment intact, for a minimum of one month, to assist County SMEs with further Requirements verification.

3.2.4.1 Documentation for each session must be comprised of the following:

a. Requirements matrix indicating whether each Requirement represents a:

i. Fit – Contractor's baseline proposed COTS software is demonstrated to fully meet the County's requirement out-of-the box. Contractor must document how Contractor's Proposed COTS software is used to meet the requirement,

ii. Partial Fit – Contractor's baseline proposed COTS software can be demonstrated to meet only part of the County's requirement. Contractor must document how Contractor's proposed COTS software is used to meet the requirement and describe the functional GAP and means for resolution, or

iii. GAP – Contractor's baseline proposed COTS software cannot be demonstrated to meet the County's requirement. Contractor must document the GAP, to identify alternatives [e.g., configuration, software development, business process change, or a combination of alternatives (as approved by County Project Manager)].

b. Recommended Solution Configurations (e.g., table-driven, User Interface, security, and workflow) to support the County's requirements,

c. Recommended Programming Modifications to support the County's requirements (e.g., Configuration, Customization development/programming, System Interfaces),

d. Impacts of recommended business process changes, as applicable (e.g., new policies/procedures need to be developed, changes to business processes, etc.), and

e. Updated ITL [refer to Paragraph 2.1.5 (Issue Tracking Log (ITL) Documentation, Escalation, and Resolutions) above] that includes a brief description, target date for resolution, action plan, and party responsible.

All Documentation will be reviewed and approved by County Project Manager in accordance with the process outlined in Exhibit A (Statement of Work) to the Contract.

3.2.5 The GAP analysis report must be fully documented by Contractor and must, at a minimum, include:

a. County business scenarios,

b. Demonstration/GAP analysis scripts,

c. Demonstration/GAP analysis session Documentation,

d. Description of each GAP identified, alternatives and/or a recommendation for addressing each identified GAP,

e. Concept description for each required software Customization resulting from the GAP analysis, that describes the functionality of the Customization,

f. Impacts on business operations – Describe each impact and recommended course of action for each, and

g. Recommendations for successfully proceeding with the Project.

The GAP analysis report must be reviewed and approved by County Project Manager. Contractor must make any revisions specified by County Project Manager.

3.2.6 Programming Modifications/Changes Document

Based on the GAP analysis report, Contractor must produce a Programming Modifications document, which includes a recap of Programming Modifications needed to meet the Requirements, as well as any additional Customizations, Configurations, and Interfaces identified in the GAP analysis report (refer to Paragraph 3.2.5 above) that were not previously identified by Contractor.

3.2.6.1 Contractor and County Project Manager will verify and assess impacts on business operations and the Detailed Work Plan based on the findings within this report.

3.2.6.2 Additional Programming Modifications not previously identified by Contractor, if any, must be executed by Contractor at Contractor's sole expense, and are not billable to the County.

3.2.6.3 Notwithstanding the foregoing, additional requirements identified by the County that were not part of the County's original published Requirements which result in additional implementation costs, will require a formal executed Change Notice to the Contract issued by the County to Contractor for Optional Work, utilizing Pool Dollars, in accordance with Paragraph 10.1 (Amendments and Change Notices) and Paragraph 3.3.4 (Optional Work), of the Contract.

3.2.6.4 Contractor must update the PCD and corresponding Detailed Work Plan to reflect the revised Requirements.

3.2.7 Final Requirements Document

As a result of this Task, Contractor must submit to County Project Manager an appended draft Solution Requirements document for review and subsequent approval. Contractor must make any revisions specified by County Project Manager. Once approved, the appended Requirements document will become the Final Requirements document.

The Final Solution Requirements document replaces all previous versions. Notwithstanding, Contractor must maintain a document catalogue of all approved prior versions of the Requirements document.

3.2.8 Project Review Point – Requirements and GAP Analysis

At this point, at the direction of County Project Director, as reviewed in conjunction with OTP, a Project Review of the results of Task 3 (Requirements Review and Demonstration/GAP Analysis) may be conducted at the County's sole discretion.

Deliverable 3.2 – Completed Requirements Review and Demonstration / GAP Analysis

a. Demonstration / GAP Analysis Environment

b. Product Training

c. Script Summary Document Draft

d. Script Summary Document Final

e. GAP Analysis Scripts

f. Solution Demonstration / GAP Analysis Sessions

g. GAP Analysis conducted

h. GAP Analysis Report – Draft

i. GAP Analysis Report – Final

j. Proposed Changes Document – Draft

k. Proposed Changes Document – Final

l. Final Requirements Document – Draft

m. Final Requirements Document – Final

Deliverable 3.2, Completed demonstration and GAP analysis Documentation will be reviewed and approved in accordance with the document review process described in Attachment A.2 (Deliverable Acceptance Process) to Exhibit A (Statement of Work) to the Contract.

4.0 Task 4 Infrastructure and Technical Assessment

Contractor must conduct an infrastructure and technical assessment of the County's readiness to implement Contractor's pending Solution.

4.1 Subtask 4.1 – Infrastructure Readiness Assessment

Contractor must conduct assessments in the areas of hardware, network, System management, software, and operational readiness (e.g., human resources, facilities, etc.).

4.1.1 Contractor must specify the type of technical information required of the County for Contractor to implement Contractor's pending Solution, including at minimum Contractor's proposed COTS software, Data Conversion storage as well as hardware and all other components that will comprise the NLRS Solution.

4.1.2 Contractor must conduct a site survey of the County's secondary data center, where the servers supporting the pending NLRS Solution will be housed, as applicable.

4.1.3 Contractor must develop an Infrastructure Readiness Assessment Document that:

a. Identifies incompatibilities that may affect the timely and successful implementation of the NLRS Solution, including Contractor's ability to meet the System Performance Requirements [refer to Paragraph 5.2.1 (Problem Correction Priorities) to Exhibit C (Service Level Agreement) to the Contract]. Incompatibilities may include, but not be limited to, any issues associated with hardware, LAN/WAN, software, desktop devices (e.g., workstations, laptops, etc.), operations management, and the help desk, and

b. Recommends corrective actions or site modifications required by the County.

County Project manager will review and approve the Infrastructure Readiness Assessment document. Contractor must make any revisions specified by County Project Manager.

4.2 Subtask 4.2 – Technical Architecture Document

4.2.1 Contractor must develop a technical architecture document (TAD) that describes the various technical environments and how they are to be deployed to support the implementation of Contractor's proposed COTS software. Contractor's TAD must account for County's desire to implement the Solution in the Cloud environment and create a County-hosted instance in the Department's Data Center as a backup for passive failover of the NLRS Production Solution. The list of the technical environments may include, but not be limited to, the following:

- COTS NLRS Solution Development: Installing Contractor's base COTS NLRS software and developing software Programming Modifications (Configurations, Customizations, Interfaces), System reports, and dashboard monitoring,
- Legacy Data Conversion,
- Integrated System Testing,
- Operational Readiness Testing,
- User Acceptance Testing (UAT),
- Performance Testing,
- User Training,
- Pre-Production Environment: Performing the System performance load test, and applying and testing all patches, updates, and upgrades to the baseline software prior to Go-Live,
- Disaster Recovery/Backup Environment (Cloud or Secondary site Department's Data Center),
- Production Environment (On-Site), and
- Post-Production Test Environment: Testing of patches, updates, upgrades, interface modifications, and other Solution modifications prior to migrating them to the Production Environment and secondary backup and training environments.

4.2.2 Preliminary Production Software and Virtual Hardware Configuration and Specifications

Using Attachment A.4 (Hardware and Software Delivery List and Specification Sheet) to Exhibit A (Statement of Work) to the Contract, Contractor must use the TAD, if necessary, to resize and define the software configuration and specifications that will be established for Production Use, as applicable. This Task must be completed in conjunction with the infrastructure readiness assessment described in Paragraph 4.1 (Subtask 4.1 – Infrastructure Readiness Assessment) above. The configuration and specifications must be updated as the Production criteria are fully established.

4.2.3 Hardware and Operating System Software for Backup Site

Using Attachment A.4 (Hardware and Software Delivery List and Specification Sheet) to Exhibit A (Statement of Work) to the Contract, Contractor must use the TAD, if necessary, to resize and define the hardware and software Configuration and specifications that will be established for Production Use, as applicable. This Task must be completed in conjunction with the infrastructure readiness assessment described in Paragraph 4.1 (Subtask 4.1 – Infrastructure Readiness Assessment) above. The configuration and specifications must be updated as the Production criteria are fully established.

4.2.4 Database Management System

The TAD must include information about the database management system underlying Contractor's proposed COTS software.

4.2.5 Contractor's Quality Control, TAD

Contractor must describe their approach to monitoring System performance and administration, including business continuity (e.g., backup and recovery, failover/failback), dashboard monitoring, incident tracking, and Contractor's User support.

Contractor must submit the TAD draft to County Project Manager for review and approval. Contractor must make any revisions specified by County Project Manager.

Deliverable 4 – Completed Infrastructure and Technical Assessment

a. Infrastructure Readiness Assessment Document – DRAFT

b. Infrastructure Readiness Assessment Document – FINAL

c. Technical Architecture Document – DRAFT

d. Technical Architecture Document – FINAL

Deliverable 4.1 and 4.2, Completed Infrastructure and Technical Assessment documentation must be reviewed and approved in accordance with the document review process described in Attachment A.2 (Deliverable Acceptance Process) to Exhibit A (Statement of Work) to the Contract.

5.0 Task 5 Implementation Assessment Document

This Task 5 includes the strategies for Contractor's Customized COTS Solution's implementation and transition to Production, which are based on the findings of the Final Solution Requirements document (Task 3), and the Infrastructure and Technical Assessment (Task 4). These implementation strategies form a critical

component of the PCD (Task 1). The implementation strategies must consider the County's organizational and Project constraints while addressing the County's Final Solution Requirements. Contractor must submit a draft of each of the implementation strategies (refer to Paragraphs 5.1.1 through 5.1.10 below) for County review and approval as they are prepared.

This Task 5 culminates with the creation of a comprehensive final IAD. The final IAD must open with an executive summary that includes key findings and recommendations and must include the following strategies and plans:

5.1 Implementation Strategy, Updated

5.1.1 Software – Contractor's COTS software Programming Modifications – Customization / Configuration Approach, Updated

Contractor must specify and document the approach and processes for designing and developing the Programming Modifications identified in the GAP analysis report [refer to Paragraph 3.2 (Subtask 3.2 – Demonstration and GAP Analysis) above], and must include:

a. The County's verification of software Programming Modifications,

b. Design approach,

c. Development methodology,

d. Software version control,

e. Quality assurance, and

f. Phasing/sequencing considerations.

5.1.2 Hardware – Contractor's Hardware Deployment Approach, Updated

Contractor must specify and document their approach and processes for delivery, set-up, installation, and configuration of all hardware components, as applicable:

a. For Department's Secondary Data Center Backup Site

Server rack, servers, and network connectivity for the NLRS Production Environment and Test/Train Environment, itemized in the TAD, including the dedicated communication line and secondary VPN line to Contractor's secondary data center site listed below for only the NLRS Production Environment.

b. Contractor's proposed arrangements and timing for delivering equipment to Contractor's primary hosting site (if applicable), Department's secondary data center site, installation strategy, and including all related testing steps.

5.1.3 Test Strategy, Updated

Contractor must specify and document the strategy, approach, and processes for testing the customized Solution during Task 12 [refer to Paragraph 12.1 below], including:

a. Unit Component Test

These tests are conducted during the development process by Contractor to ensure all the Solution's unit components function as specified.

b. Data Conversion Test

These tests are conducted to make certain all data converted from the legacy system complies with Contractor's proposed Data Conversion routines and to assure the County that no County data was "dropped" or lost during the conversion process.

c. Integrated System Test

These tests are conducted to make sure all the components/modules/interfaces work together and are complete, integrated, error-free, and meet the final Requirements and specifications. In the event that a modification or correction is needed, Contractor must conduct regression testing to all affected components to ensure there is no adverse impact on other components or modules [refer to Subtask 9.1 (Final Test Plan) below] and provide a roll-back feature to guard against System failure.

d. Operational Readiness Test, Updated

These tests are performed at the final stage of testing in conjunction with the County's CFMB team at the SCC Location and no more than 47 NLRS agency locations designated by County Project Manager. These tests will also confirm the Solution's readiness for production, including software installation and configuration, database backup, database recovery, rollback, failover, reliability, System performance, security, and, where necessary, perform regression testing. It also tests the County's Business Continuity Strategy (Disaster Recovery) [refer to Subtask 9.1 (Final Test Plan) below].

e. User Acceptance Test (UAT)

The UAT ensures that Contractor's Solution meets all the Final Solution Requirements. These tests are generally performed by the County stakeholders after NLRS Training [refer to Task 10 (Training and Documentation) below] and during the Transition to Production [refer to Task 12 (Transition to Production – System Implementation and Production Cutover) below]. Contractor must observe and document any and all bugs, offer proposed remedies, as well as identify any discovered enhancements. UAT will occur centrally at the

CFMB SCC location, together with not more than five NLRS agency locations, as designated by County Project Manager.

f. Performance Test

Tests the performance of Contractor's Customized COTS Solution in relationship to the County's Final Solution Requirements. This test should ensure that Contractor's proposed COTS Solution meets all response-time Requirements when deployed to all Users and its use during peak workloads [refer to Paragraph 5.2.1 (Problem Correction Priorities) to Exhibit C (Service Level Agreement) to the Contract]. Contractor must specify the configuration(s) and load performance tools that will be used for verifying System Performance Standards [refer to Subtask 9.1 (Final Test Plan) below].

5.1.4 System Interface Strategy, Updated

Contractor must specify and document the strategy, approach, and processes (and toolsets, if applicable) for designing, developing, testing, and certifying inbound and/or outbound System Interfaces to meet the final draft Requirements specified in Exhibit B (Solution Requirements) to the Contract. The System Interface Strategy [refer to Subtask 9.1 (Final Test Plan) below] must include:

a. An inventory of System Interfaces that identifies whether it is inbound only, outbound only, bi-directional, or link with no data integration,

b. The mode (real-time update vs. batch file),

c. The frequency at which the Interface needs to be run,

d. Toolsets to be used, if applicable,

e. Standards and formats for Interface designs,

f. The type of data that is being interfaced,

g. A listing of the target or source systems and whether testing prior to Go-Live is achievable, based on each source system's testing capability,

h. The approach to source system modifications if necessary and known, where Contractor must work with the source system proprietor,

i. Data Conversion Process and/or routines built into the Interface for converting inbound and/or outbound data, as applicable,

j. Certification Process, and

k. Acceptance Criteria.

5.1.5 Security Strategy, Updated

Notwithstanding the County's and the Department's security requirements specified in Attachments C.1 – C.4 to Exhibit C (Service Level Agreement)

to the Contract, Contractor must specify a strategy to implement the security requirements stated in sub-sections “Image Management”, “Line-Up”, “Reporting” and “Technical” of Exhibit B (Solution Requirements) to the Contract. The strategy must include the recommended Acceptance Criteria to validate the implementation.

5.1.6 Data Conversion Strategy from Legacy System, Updated

The system being replaced is identified in Paragraph 3.0 [Legacy System(s) to be Replaced] of Exhibit A (Statement of Work) to the Contract. This Paragraph provides details on Contractor’s industry best-practices approach to cleansing and converting legacy data using the Extract-Transform-Load (ETL) process.

Contractor must identify the following:

a. Review data cleansing requirements identified in the TAD, and provide written cleansing recommendations to the County on how the unnecessary or damaged records/data will be handled during the conversion,

b. The approach and processes (and toolsets, if applicable) for designing, developing, testing, and certifying conversion routines to meet the Data Conversion processes required to capture all legacy system data and audit history,

c. Standards and format for conversion designs,

d. Data types,

e. Estimated volume and extent of historical information to be converted,

f. The approach for the following processes:

    i. Data mapping,

    ii. Data extraction methodology and specifications/preparation,

    iii. Data extraction,

    iv. Data staging,

    v. Data cleansing, and

    vi. Data validation,

g. Inventory and description of Data Conversion reports to be developed,

h. Data Conversion catch-up before Go-Live protocols,

i. Certification process, and

j. Acceptance Criteria.

5.1.7 Report Design Strategy, Updated

Contractor must purge all test data from the NLRS Solution Environment generated up to Go-Live for both the primary and secondary data centers.

Contractor must specify and document:

a. The approach and processes for addressing the County's reporting requirements, hard copy and electronic, for all applicable requirement categories,

b. The approach for modifying predefined COTS NLRS reports or designing/developing new System reports not in the COTS NLRS, all as part of the NLRS Solution. This approach will include the steps necessary for report testing necessary to meet the Solution Requirements,

c. Toolsets used, if any,

d. An inventory of pre-defined reports that identify whether the report exists in the COTS software, if it exists with modifications, or new, on-demand, or scheduled during non-peak hours, the frequency that the report needs to be generated, the type of information to be provided, the target audience/distribution list, and a brief description of how the report will be used, and

e. Methods for Users to save a report design with established parameters.

5.1.8 Business Continuity Strategy (Disaster Recovery), Updated

The NLRS Solution is a business-critical System requiring 24/7 operations. Contractor must update, if necessary, the Business Continuity Strategy (Disaster Recovery) from the PCD [refer to Paragraph 1.0 (Project Planning - Project Control Document (PCD) above], in consultation with County Project Manager. The Business Continuity Strategy must address the Exhibit B (Solution Requirements) outlined in Paragraph 4.4 [Business Continuity Strategy (Disaster Recovery)] of Exhibit C (Service Level Agreement) to the Contract. The Business Continuity Strategy at minimum must include, but not be limited to, the following:

a. Full System Solution including site redundancy at primary and secondary sites,

b. Secondary data center management, including high availability and fault-tolerant physical facilities,

c. Network management for local and wide-area Networks,

d. System management by means of a dashboard, including the operation, monitoring, and management of the systems and equipment required for operations,

e. Database redundancy, management, and administration,

f. System backup, including restoring Software tools and procedures, and

Communication tools for notifications (automatic and manual) to the CFMB help desk and Users, and guidelines.

5.1.9 Training and Documentation Strategy, Updated

Contractor must specify and describe:

a. The approach and processes for technical and User training, including:

i. Targeted training groups,

ii. Number of courses, and

iii. Estimated maximum number of participants per course.

b. Procedures, roles, and responsibilities between Contractor and the County for administering the training environment,

c. Hardware/Software specifications for the training environment, as applicable,

d. Logistics that the County will need to organize training courses (e.g., classrooms, material distribution, User list),

e. The development of the Systems administration and operations manual,

f. The development of the User reference manual, training materials and exercises,

g. A preliminary training curriculum based on the County's final draft Solution Requirements document,

h. Certification process, and

i. Acceptance criteria.

5.1.10 Transition to Production: Production Cutover Strategy, Updated

This strategy describes the approach for data migration from the legacy system for the Pre-Production environment. It also describes the Solution's deployment and integration (with external systems and data, if any) and the processes for communicating and facilitating the transition to Contractor's Customized Solution in Production operations. This strategy must first be utilized for the Operational Readiness Testing and then for the full-scale Production cutover after successful User Acceptance Testing.

Utilizing the TAD and Infrastructure Readiness Assessment [refer to Deliverable 4 (Completed Infrastructure and Technical Assessment)], Contractor must refine Deliverable 4 to create a comprehensive Solution Migration Strategy document which includes a work breakdown structure and master timeline for migrating the legacy system to Contractor's Customized Solution, which must include, but is not be limited to:

a. Hardware site installation requirements for the server equipment identified in Attachment A.4 (Hardware and Software Delivery List and Specification Sheet) to Exhibit A (Statement of Work) to the Contract, if required,

b. Migration strategy: Activities, events, and resources required to migrate from the legacy system to Contractor's proposed COTS Solution,

c. A readiness checklist (which, at a minimum, includes all items listed in Paragraphs 5.1.1 – 5.1.10 above) and final Implementation Assessment, which should include the following processes and checklists for implementation:

   i. Software readiness checklist,

   ii. Hardware readiness checklist,

   iii. External Interface readiness checklist,

   iv. Security readiness checklist,

   v. Cloud Archive readiness checklist,

   vi. Data Conversion readiness checklist,

   vii. Report design readiness checklist,

   viii. Business Continuity (Disaster Recovery) readiness checklist,

   ix. Training and Documentation readiness checklist,

   x. System Configuration checklist,

   xi. Transition to Production readiness checklist, and

   xii. Organizational readiness checklist.

d. Phased Implementation Strategy including:

   i. A minimum two-week phased implementation, where Users can Work in either the legacy system or NLRS. If no Deficiencies occur during this period of time, Users will be locked out of the legacy system,

   ii. All legacy Data Conversion catch-up to Solution, occurring daily during off-peak hours, and

   iii. Built-in training tools (e.g., streaming video) or online orientation training for all Users.

e. A fallback plan to return to the legacy system in case rollout causes major Deficiencies that Contractor cannot remediate timely, and a redeployment plan after resolving major Deficiencies [as specified in Exhibit C (Service Level Agreement) to the Contract],

f. Approach to configuring User roles (e.g., mapping specific functions to specific roles and specific roles to individuals),

g. An approach for User support during phased Production Cutover,

h. Certification process, and

i. IAD Acceptance Criteria.

County Project Manager will review and approve the implementation assessment document. Contractor must make any revisions specified by County Project Manager.

Project Review Point – Technical Architecture and Assessment

At this point, the County may conduct a Project review of the results of Task 4 (Infrastructure and Technical Assessment) and Task 5 (Implementation Assessment Document) at the direction of the OTP.

Deliverable 5 – Completed Implementation Assessment Document

a. Implementation Assessment Document – Draft

b. Implementation Assessment Document – Final

Deliverable 5, Completed Implementation Assessment Document, will be reviewed and approved in accordance with the document review process described in Attachment A.2 (Deliverable Acceptance Process) to Exhibit A (Statement of Work) to the Contract.

6.0 Task 6 Design Review of Contractor's COTS Solution, Final Design

6.1 Update the Review / Demonstration Environment

Contractor must update the Review / Demonstration Environment COTS software installed for the GAP analysis [refer to Paragraph 3.2.1 (Establish a Review / Demonstration Environment) above], as applicable, and load an additional sample of legacy system data [refer to Paragraph 5.1.6 (Data Conversion Strategy from Legacy System) above] as necessary, to support the design review.

6.2 Contractor's Customized COTS Solution Design Review

Contractor must conduct a design review of the proposed Programming Modifications to Contractor's COTS software with key Users, based on the identified GAPs. The design review will be with County Project Manager as well as key Users identified by the County. A minimum of three User feedback sessions and four technical feedback sessions of four hours each must be presented by Contractor at a County-determined location to ensure the accuracy and completeness of Contractor's proposed Programming Modifications. County Project Manager reserves the sole right to cancel or reduce the number of feedback sessions needed at any time. These feedback sessions must include:

a. A review of the COTS software data model (pre-Customization),

b. A live demonstration of Contractor's COTS software, where available; Contractor must provide all hardware and software for this demonstration, at no cost to the County,

c. A review of the mockup or storyboard design drawing of the proposed data model post-Customization (if no live demonstration is available),

d. A review of the mockup or storyboard design drawing of the proposed User Interface(s) (if no live demonstration is available),

e. A review and discussion of the Data Conversion plan and timing, including a discussion on audit information conversion, and

f. A review of the County's System performance requirements, including Contractor's affirmation as to how the performance requirements will be met.

6.3 Final Design document

As a result of these feedback sessions, Contractor must:

a. Update Contractor's proposed Programming Modifications to Contractor's COTS software and create a final design document that provides design details for the NLRS Solution specifications, processes, functional hierarchy, and data models. The final design will serve as the foundational document for Contractor's actual Customization effort [refer to Task 7 (Pre-Production Environment and COTS Solution Programming Modifications (Customized/Configuration)) below].

b. Provide detailed narrative descriptions of processes and mockups or storyboard drawings of the User Interface(s) and all applicable User Interface(s) actions.

c. Additionally, document:

   i. Contractor's COTS existing software components that require Customization (e.g., programming required),

   ii. New Solution components (non-existent in the COTS software) that need to be Customized (e.g., programming required),

   iii. Contractor's proposed COTS Solution's areas that require Configuration only. Configuration areas may include table-driven access to application areas, User Interface Configurations, security and User ID Configuration, and workflow Configuration, and

   iv. Any additional requirements identified by the County during the GAP analysis or during the design review feedback sessions that were not part of the County's original published Requirements, which may result in additional implementation costs. [These Programming Modifications may require a formal executed Change Notice to the Contract issued by the County to Contractor for Optional Work, utilizing Pool Dollars, in

accordance with Paragraphs 10.1 (Amendments and Change Notices) and 3.3.4 (Optional Work) of the Contract].

d. Document the Solution Requirements that are impacted by:

   i. All proposed Programming Modifications,

   ii. Proposed Interface, identifying the Interface(s),

   iii. Federal, state, or other compliance standards, identifying the standard(s), and

   iv. The System Performance Standards [refer to Paragraph 5.3 (System Performance Requirements) to Exhibit C (Service Level Agreement) to the Contract], identifying the standard(s).

e. List each Licensed Software product used to implement the NLRS Solution, which is not listed in Attachment A.4 (Hardware and Software Delivery List and Specification Sheet) to Exhibit A (Statement of Work) to the Contract. Identify each product as 'proprietary' or by Third-Party Software's name. Identify each product's software version number and manufacturer,

f. Include complete workflows which include the new functionalities for all User and administrative functions, and

g. Include details on the NLRS Solution's database design, Interface design, and equipment installation drawings.

The updated Final Design Document will be reviewed and approved by County Project Manager. Contractor must make any revisions specified by County Project Manager.

6.4 Define and Evaluate Changes to Contractor's Proposed COTS Solution Design

6.4.1 Contractor must document the differences and changes between Contractor's original proposed COTS Solution design, shown in the GAP analysis report, and the final design document, as applicable. Documentation must include detailed information by item, including itemizing any additional costs Contractor asserts for the NLRS Solution.

6.4.2 Any agreed-to changes impacting costs may result in a formal Change Notice issued in accordance with the change process specified in Paragraph 10.1 (Amendments and Change Notices) of the Contract, in the County's sole determination.

6.4.3 Contractor must remove from the final design document any changes to the NLRS Solution requiring additional costs that County Project Director, in his sole discretion, does not agree to. Contractor must submit the revised final design document to County Project Manager for review and approval.

6.4.4 The PCD must be updated to reflect the revised final draft Solution Requirements and corresponding Project plan.

6.5 Project Review Point – Customized COTS Solution / Design and Final Design

At this point, the County may conduct a project review of Task 6's results at the direction of OTP.

Deliverable 6 – Completed Customized COTS Solution Design Review and Final Design

a. Final Design Document – Draft

b. Final Design Document – Final

Deliverable 6, Completed Customized Solution Design Review and Final Design, will be reviewed and approved in accordance with the document review process described in Attachment A.2 (Deliverable Acceptance Process) to Exhibit A (Statement of Work) to the Contract.

7.0 Task 7 Pre-Production Environment and COTS Solution Programming Modifications (Customization/Configuration)

While the County is not responsible for the Programming Modifications effort (e.g., Customizations, Configurations, etc.), the purpose of this Task is to assist Contractor in ensuring that the Program Modifications effort is timely completed in satisfaction of the Requirements specified in Contractor's Customized COTS Solution, and the agreed-to final design.

7.1 Subtask 7.1 – Establish the Pre-Production Environment

Contractor must establish the Pre-Production environment based on the specifications in the TAD [refer to Paragraph 4.2 (Subtask 4.2 – Technical Architecture Document)] and IAD [refer to Paragraph 5.1 (Implementation Strategy, Updated)], and more specifically, the Performance Testing configuration recommendations contained in the TAD [refer to Paragraph 4.2 (Subtask 4.2 – Technical Architecture Document)].

As agreed to by the parties, the pre-production environment will be used to execute the Solution Programming Modifications and will later serve as the Production Environment. County Project Manager and the County's Data Center manager, with the concurrence of Contractor Project Manager, will specify the roles and responsibilities of the parties to deliver, install, and configure all components and network protocols for the pre-production environment, which includes as applicable:

a. System Hardware, infrastructure, and physical facilities,

b. Operating Software, database management system, network, and virtualization,

c. Network connectivity required within the scope of this Project,

d. Access controls as appropriate for authorized Contractor and County Project team members to install, configure, maintain, and use the Application Software and middleware,

e. Baseline Customized COTS Solution,

f. Baseline Configuration,

g. Installation and configuration of voice radio, voice recorder, Text-to-9-1-1 telephone transmissions, audio, Rapid SOS, CAD and RMS interface, GEO fence mapping,

h. Any required Third-Party Software or toolsets,

i. Establishing and testing NLRS System Interfaces,

j. Processes and mechanisms for security administration, including applicable integration with network security, workstation sign-on, and data center security,

k. Processes and mechanisms for integration and change control, including controlled migration of Software, data, User profiles, etc., from one environment to another, and change-control procedures,

l. Processes for database administration,

m. Backup and recovery operations,

n. Cloud archiving long-term storage,

o. Processes for performance monitoring,

p. Processes and mechanisms for incident tracking and troubleshooting,

q. Scheduled offline processes,

r. Loading and configuring data and components, including:

   i. Converted data,

   ii. Entering initial User ID's,

   iii. User Profiles, and

   iv. Security, and

s. Testing User accounts.

Deliverable 7.1 – Pre-Production Environment Established

Pre-Production environment configuration and Documentation must be reviewed and approved by County Project Manager.

7.2 Subtask 7.2 – Execute COTS Solution Programming Modifications

7.2.1 Contractor must customize the COTS Solution. The Customization process must be based on the agreed-to (by Contractor and County Project Manager) Final Requirements Document [refer to Paragraph 3.2.7 (Final Requirements Document) above] that incorporates:

   a. Completed Requirements review and GAP analysis (refer to Subtasks 3.1 and 3.2);

   b. TAD [refer to Paragraph 4.2 (Technical Architecture Document) above];

c. Final Implementation Assessment Document [Task 5 (Implementation Assessment Document)], including:

   i. System Interface Strategy, Updated (refer to Paragraph 5.1.4 above),

   ii. Security Strategy, Updated (refer to Paragraph 5.1.5 above),

   iii. Data Conversion Strategy from Legacy System, Updated (refer to Paragraph 5.1.6 above), and

   iv. Report Design Strategy, Updated (refer to Paragraph 5.1.7 above); and

d. Completed Contractor's Customized COTS Solution Design review and Final Design [refer to Task 6 (Design Review of Contractor's COTS Solution, Final Design)].

7.2.2 All Solution modifications must be made as part of this Subtask. The Customization process must transform Contractor's proposed COTS software into Contractor's Customized COTS Solution, which must meet the County's Final Solution Requirements and Contractor's final design document [refer to Paragraph 6.3(a) above].

7.2.3 The integration of tools and algorithms, as applicable, is part of this Subtask along with any applicable development.

7.2.4 Contractor must develop the specified System Interfaces as provided in the System Interface Strategy [refer to Paragraph 5.1.4 (System Interface Strategy, Updated) above].

7.2.5 Contractor must conduct regression testing of all software versions with updates incorporated into Contractor's Customized COTS Solution during implementation.

7.2.6 The County and Contractor must review, as required in the PCD, the Customization effort at predetermined checkpoints that will be agreed to by County Project Manager and Contractor Project Manager. These checkpoint reviews will be used to determine if Contractor's Customization effort is on schedule and meets the User requirements as specified in the final Requirements.

7.2.7 This Subtask must result in a fully functional NLRS Solution (Contractor's Customized COTS Solution) that meets the Requirements and is ready for User Acceptance Testing, all as specified in the final Requirements and final design.

Deliverable 7.2 – Contractor's Customized COTS Solution Completed

Deliverable 7.2, Contractor's Customized Solution must be reviewed and accepted by County Project Manager.

7.3 Subtask 7.3 – Contractor's Customized COTS Solution Review

7.3.1 At the sole discretion of County Project Manager, all identified issues, must be resolved as specified in Paragraph 46.0 (Dispute Resolution Procedure) of the Contract, and documented in the ITL [refer to Paragraph 2.1.5 (Issue Tracking Log (ITL) Documentation, Escalation, and Resolutions) above].

7.3.2 Upon resolution of all issues, Contractor must submit the completed Customized Solution to County Project Manager and the Project team for review. At County Project Manager's direction, Contractor must initialize the approved Customized COTS Solution on the pre-Production environment.

Deliverable 7.3 – Contractors' Customized COTS Solution Reviewed / Approved / Certified

The Customized COTS Solution is approved by County Project Manager as ready for testing by the County.

8.0 Task 8 Data Conversion

Upon completing Contractor's Customized COTS Solution, Contractor must extract, cleanse, transform, and load the legacy system data into the Pre-Production Environment.

The legacy system being replaced contains data that requires Data Conversion. A general description of the system to be replaced is provided in Paragraph 3.0 [Legacy System(s) to be Replaced] of Exhibit A (Statement of Work) to the Contract. The County's Data Conversion requirements are identified in the 'Data Conversion' category of Exhibit B (Solution Requirements) to the Contract.

The County will continue its use of the legacy system until Go-Live is successfully completed. Contractor must conduct an initial Data Conversion, to be followed by successive runs to capture new and/or modified data from the legacy system.

8.1 Subtask 8.1 – Initial Data Conversion

8.1.1 Contractor must develop conversion routines using the Pre-Production Environment established in Subtask 7.1 (Establish the Pre-Production Environment). The conversion routines must be based on the Data Conversion strategy [Task 5 (Implementation Assessment Document)], and include, but not be limited to:

a. Details about the data to be converted (e.g., source system, data types, etc.),

b. Legacy Voice Recording and Text-to-9-1-1 Calls to be converted,

c. Conversion toolsets that are utilized,

d. Conversion mapping and data transformation, and

e. Cleansing and preparation processes are required by the County, if any, for conversion.

8.1.2 Contractor must run and test the developed Data Conversion routines and test Data Conversion jobs based on the Data Conversion routines specifications in the IAD (Task 5). [The Pre-Production Environment may also be used to stage data that is being prepared for conversion during the Testing [refer to Paragraph 5.1.3 (Test Strategy, Updated) above] and Production Cutover [refer to Paragraph 5.1.10 (Transition to Production: Production Cutover Strategy, Updated) above].

8.1.3 If necessary, Contractor must modify the Data Conversion routines for data catch-ups required to successfully complete Go Live and test those Data Conversion jobs.

8.1.4 Sample Data Conversion Test

Contractor must plan, test, and perform at least one conversion of a small representative set of data, including audit trail data, to verify the conversion routines and the quality of the converted data. The County and Contractor must mutually agree upon the sample data set. The County will verify that the sample data set was successfully converted into the NLRS Solution. Upon successful completion, Contractor must incorporate the conversion routines into the Final Data Conversion Plan [refer to Paragraph 8.1.7 (Updated Data Conversion Plan) below].

8.1.5 Data Conversion

Contractor must coordinate with the County to incrementally extract all legacy system data (initial retrieval and data catchup).

8.1.6 Contractor must conduct iterative data cleansing and preparation efforts through periodic conversion (transform and load) runs to identify data issues and to determine the degree to which the data is ready for Production, including, but not limited to, the following:

a. Executing scheduled conversion runs to identify data issues and to determine the degree to which data is ready for Production,

b. Generating conversion reports,

c. Performing data cleansing/preparation steps,

d. Using selected toolsets for issue identification and data verification, and

e. Track and resolve issues related to Data Conversion routines.

8.1.7 Updated Data Conversion Plan

Contractor must update the Data Conversion Strategy [Task 5 (Implementation Assessment Document)] and develop a Final Data Conversion Plan for executing the conversion and validating the converted data, including data catch-ups. The Final Data Conversion Plan must be incorporated into the Production Cutover Strategy [refer to Paragraph 5.1.10 (Transition to Production: Production Cutover Strategy, Updated)].

Deliverable 8.1 – Initial Data Conversion Completed and Certified

a. Conversion routines – Draft and Final

b. Sample Data Conversion and Tests executed

c. Final Data Conversion Plan – Draft and Final

Deliverable 8.1, Initial Data Conversion, will be reviewed and approved in accordance with the document review process described in Attachment A.2 (Deliverable Acceptance Process) to Exhibit A (Statement of Work) to the Contract.

Additionally, Contractor must certify, and County Project Manager will validate, that all converted data is ready for Production operations. The County will provide Contractor with a summary of issues for resolution, as applicable, within a timeframe as directed and approved by County Project Manager.

8.2 Subtask 8.2 – Ongoing Data Conversion and Cleansing

Contractor must provide ongoing Data Conversion and cleansing activities as required by the County up to Final Acceptance.

Deliverable 8.2 – Ongoing Data Conversion and Cleansing

Ongoing Data Conversion and cleansing activities must be approved by County Project Manager.

9.0 Task 9 Pre-Production Testing of Contractor's Customized COTS Solution

Pre-Production testing process ensures that all components of Contractor's Customized COTS Solution required at Go-Live are thoroughly tested and that the implemented Solution consists of high-quality, reliable Software. The testing process must take into account the unique testing requirements of the Solution that is based upon a customized version of the originally proposed Contractors' COTS Software. NOTE: The testing of individual components must be conducted by Contractor as part of the Programming Modification effort. To the extent possible, the County will participate in testing. Based upon the testing results and the County's input, Contractor must make all changes required and resolve all issues.

9.1 Subtask 9.1 – Final Test Plan

9.1.1 Contractor must update the Testing Strategy and create a Final Test Plan. The Final Test Plan must identify the specific testing activities to occur and which testing will be performed with the County oversight. The Final Test Plan must be comprised of the following:

a. Integrated System test approach,

b. Updated System Interface strategy test approach,

c. Operational Readiness test approach,

d. Business Continuity Strategy (Disaster Recovery) test approach,

e. Performance testing approach that includes a test schedule, test criteria (including transaction profiles, data volumes, and User loads), performance targets, and toolsets to be used,

f. User Acceptance test approach,

g. Test scenarios:

i. Business functionality scenarios (provided by the County), and

ii. Technical functionality scenarios (Integrated System test, Interfaces with external data sources, operational readiness including recovery procedures after a System failure, and performance) that must be developed by Contractor,

h. Contractor-developed test scripts that map to each scenario,

i. Organization of test scripts,

j. Incident log for describing reported Software incidents, date resolved, and nature of resolution, and

k. A test plan must be reviewed and approved by County Project Manager. Contractor must make any revisions specified by County Project Manager.

Deliverable 9.1 – Pre-Production Test Plan Finalized

Deliverable 9.1, will be reviewed and approved in accordance with the document review process described in Attachment A.2 (Deliverable Acceptance Process) to Exhibit A (Statement of Work) to the Contract.

9.2 Subtask 9.2 – Conduct System Interface Testing

9.2.1 Contractor, with County oversight, will conduct tests of all Interfaces with external data sources/systems to the extent possible, in accordance with the System Interface Strategy document [refer to Paragraph 5.1.4 (System Interface Strategy, Updated) above], and analyze and document results.

9.2.2 Based on these tests and the County input, Contractor must make any required changes (e.g., updates to Interface coding, structure, etc.) and re-test to confirm that these changes have been completed successfully.

9.2.3 Contractor must certify in writing that testing for each Interface has been successfully completed and that Contractor has successfully completed all required corrective action(s). County Project Manager must approve the successful completion of each Interface test.

Deliverable 9.2 – System Interfaces Tested and Certified

Deliverable 9.2, System Interface tests, test results (analysis and Documentation), and Contractor certification will be reviewed and approved in accordance with the document review process described in Attachment A.2 (Deliverable Acceptance Process) to Exhibit A (Statement of Work) to the Contract.

9.3 Subtask 9.3 – Conduct Integrated System Test

9.3.1 Contractor must conduct all the activities associated with preparing for and conducting System and integration testing. This Subtask follows the Final Test Plan [refer to Subtask 9.1 (Final Test Plan) above]. The Integrated System Test includes, but is not limited to, the following:

a. Integration testing of all components of Contractor's Customized COTS Solution in the specified hardware (as applicable), operating system and network environment, and includes Interfaces with other systems, to the extent possible based on other Systems' Interface testing capabilities,

b. Contractor's use of test scenarios [refer to Paragraph 9.1.1(g) and (h) above] provided by the County for the purpose of creating test scripts, conducting the tests, and documenting test results, and

c. Regression testing after the correction of any identified defects, to which Contractor must make any required changes and re-test to confirm these changes have been completed successfully.

9.3.2 Contractor must certify in writing that all integration tests have been successfully completed and that Contractor has successfully completed all required corrective action.

Deliverable 9.3 – Completed Integration Tests and Certification

Deliverable 9.3, test results, and Contractor certification will be reviewed and approved in accordance with the document review process described in Attachment A.2 (Deliverable Acceptance Process) to Exhibit A (Statement of Work) to the Contract.

9.4 Subtask 9.4 – Conduct Initial Operational Readiness Tests and Certification

9.4.1 Contractor must execute and analyze the Operational Readiness Tests against the Pre-Production Environment according to the Final Test Plan [refer to Subtask 9.1 (Final Test Plan) above] and document the test results. Note: This Operational Readiness Test process will also occur prior to Go Live when the pre-production Environment transitions to the Production Environment.

9.4.2 Based upon these findings, Contractor must:

a. Document recommended modifications to County business operations, including the County's Business Continuity Strategy.

b. As necessary, optimize the Pre-Production Environment at the primary data center site and document optimization performed.

c. Conduct retesting if necessary to confirm that Contractor has successfully conducted the operational readiness testing and that the County's business operations, as applicable, have been modified to remedy any County-responsible operational readiness test failures.

9.4.3 Contractor must certify, in writing, that all Operational Readiness Tests have been successfully completed, that Contractor has successfully completed any required corrective action, that Contractor has successfully modified Contractor's Customized COTS Solution, and that Contractor's Customized COTS Solution is ready for User Acceptance Testing

Deliverable 9.4 – Completed Initial Operational Readiness Tests and Certification

a. Operational Readiness Tests completed

b. Operational Readiness Test Certification

Deliverable 9.4, Completed initial Operational Readiness Tests and certification must be reviewed and approved in accordance with the document review process described in Attachment A.2 (Deliverable Acceptance Process) to Exhibit A (Statement of Work) to the Contract.

9.5 Subtask 9.5 – Performance Testing

The performance test ensures that the Pre-Production Environment and Contractor's Customized Solution meet the Solution's performance requirements. Note: This performance testing process will also occur prior to Go-Live when the Pre-Production Environment transitions to the Production Environment.

9.5.1 Contractor must execute the performance tests in accordance with the Final Test Plan [refer to Subtask 9.1 (Final Test Plan) above] and document and analyze results,

9.5.2 Based on these tests, Contractor must make any required configuration changes and re-test to confirm that these changes have been completed successfully,

9.5.3 Contractor must certify, in writing, that all performance tests have been successfully completed, and

9.5.4 Contractor must have successfully completed all required corrective action to the County's satisfaction.

Deliverable 9.5 – Completed Performance Tests and Certification

a. Performance Tests completed.

b. Performance Test Certification.

Deliverable 9.5, Completed performance tests and certification must be reviewed and approved in accordance with the document review process described in Attachment A.2 (Deliverable Acceptance Process) to Exhibit A (Statement of Work) to the Contract.

9.6 Subtask 9.6 – User Acceptance Test and Certification (Consists of Contractor supporting the UAT team)

9.6.1 Conduct Product Training – Contractor must provide hands-on training to a minimum of 40 County-provided UAT participants. A minimum of 40 UAT

participants will be provided by the County. The purpose of the product training is to familiarize UAT participants with the general navigation, terminology, and functionality of the Customized Solution. Hands-on training Solution must include, at a minimum:

a. Application overview and navigation,

b. System concepts and terminology,

c. Functional overview of each Solution component to be reviewed, and

d. Training materials and exercises [refer to Paragraph 7.1.14 (Training and Documentation) of Exhibit A (Statement of Work)] to this Contract.

Training must be tailored to the specific needs of the County's UAT participants. Additionally, a method for participants to provide feedback on the training should be included to facilitate continuous improvement.

9.6.2 Contractor must be on-site during UAT and monitor County-designated participants. The Project team in conjunction with specified Users will execute the UAT scenarios [refer to Paragraph 9.1.1(g) and (h) above] with Contractor's oversight.

9.6.3 Contractor must combine their identified documented defects with all defects documented by each UAT participant, including any System performance values, and maintain one comprehensive defect list, regardless of who identified the defect. Contractor must correct all defects within a reasonable time specified by County Project Manager (based on circumstance), documenting results achieved.

9.6.4 Contractor must update the UAT scenarios and scripts, as applicable.

9.6.5 After Contractor corrects all defects, Contractor must notify the County, and UAT participants. Contractor will again conduct that portion of the UAT, taking into consideration any Software regression issues. Contractor must perform the necessary corrections to remedy all identified defects. The UAT participant will retest as required until the County, in its sole determination, concurs with Contractor that all the defects have been resolved. Contractor and County Project Manager will certify, in writing, that the Acceptance Tests have been completed to the satisfaction of the County and that Contractor's Customized COTS Solution is transformed into the NLRS Solution in the pre-Production Environment.

Deliverable 9.6 – Completed and Certified Acceptance Tests and Certification

a. UAT completed

b. Acceptance Test Certification

Deliverable 9.6, Completed and certified Acceptance Tests must be reviewed and approved in accordance with the document review process described in Attachment A.2 (Deliverable Acceptance Process) to Exhibit A (Statement of Work) to the Contract.

10.0 Task 10 Training and Documentation

Training and Documentation processes must be designed by Contractor to ensure that training is planned and delivered. Contractor must create a training and Documentation plan based on the strategies set forth in Paragraph 5.1.9 (Training and Documentation Strategy, Updated) above, which include developing training documents and providing end-user, System administrator, and train-the-trainer (T3) training. Documentation to support the operation of the System and User desk references must also be prepared by Contractor.

10.1 Subtask 10.1 – Establish the Training Environment

Contractor must establish the training environment based on the specifications in the TAD and IAD. County Project Manager and County data center manager, with the concurrence of Contractor Project Manager, will specify the roles and responsibilities required to furnish, install, and configure the NLRS training environment, which may include, as applicable:

a. System Hardware, infrastructure, and physical facilities,

b. Operating Software, database management system, network, virtualization,

c. Network connectivity required within the scope of this Project,

d. Access controls as appropriate for authorized Contractor and County Project team members to install, configure, maintain, and use Application Software and middleware,

e. Backup and recovery operations,

f. Baseline Customized COTS Solution,

g. Baseline Configuration,

h. Any required Third-Party Software or toolsets,

i. Installation and configuration of voice radio, voice recorder, Text-to-9-1-1 telephone transmissions, audio, Rapid SOS, CAD and RMS interface, GEO mapping,

j. Establishing and testing NLRS System Interfaces,

k. Security administration setup includes, if necessary, applicable integration with network security, security groups, and workstation sign-on.

l. User profile setup for training Users,

m. A sampling of converted database records, as determined by the County, for training all NLRS components,

n. Computer-based training tools, and

o. Online computer-based training tools (e.g., streaming video) setup.

Contractor must test and verify that all the steps above are defect-free and ready for training County Users. Contractor must also successfully demonstrate the Training Environment to County Project Manager for certification.

Deliverable 10.1 – Training Environment Established

Deliverable 10.1, Training environment must be reviewed and approved by County Project Manager.

10.2 Subtask 10.2 – Develop A Final Training Plan

10.2.1 Contractor must review and update the Training Strategy document [refer to Paragraph 4.2 (Subtask 4.2 – Technical Architecture Document] in the TAD [refer to Paragraph 5.1 (Implementation Strategy, Updated) above], and prepare a Final Training Plan which must include, but not be limited to:

a. Training objective, approach (i.e., methods employed) to technical and User training,

b. Training course descriptions and curriculum – by course subject, purpose, and topics covered,

c. Target training groups and class sizes,

d. Training facilities, Contractor and County staffing resources, and test data,

e. Training logistics and administration (e.g., evaluation questionnaire, training handouts, sign-in sheet, nameplate IDs, etc.),

f. Training materials and exercises,

g. Documenting software glitches found by Users during training for tracking,

h. Training schedule (just-in-time training), which must coincide with Production cutover [refer to Paragraph 5.1.10 (Transition to Production: Production Cutover Strategy, Updated)], and

i. Procedures for administering the training environment.

The final training plan must be reviewed and approved by County Project Manager. Contractor must make any revisions specified by County Project Manager.

Deliverable 10.2 – Final Training Plan

Deliverable 10.2, the final training plan, must be reviewed and approved in accordance with the document review process described in Attachment A.2 (Deliverable Acceptance Process) to Exhibit A (Statement of Work) to the Contract.

10.3 Subtask 10.3 – Solution and User Documentation

Contractor must update the Documentation Strategy document in the TAD, as necessary. Contractor must prepare User Documentation, including on-line help features, for the Customized Solution.

10.3.1 Training Documentation. Contractor must develop complete User documentation, all of which must be formatted for copying and distributing in a Training course, and available in the Solution's online feature. Documentation for each NLRS component must include:

a. User Reference Manual – step-by-step desk procedures for performing business operations,

b. Quick Reference Guides – a condensed informational pamphlet, highlighting how to perform common key operations within the NLRS Solution, and

c. Training Instructor Guide – an instructor's end-User training guide for designated County train-the-trainer staff.

10.3.2 User Manual. Contractor must develop an online User Manual, which the user may convert to a printable document. Additionally, the online User manual must be context-sensitive for all aspects of the Solution [refer to Exhibit B (Solution Requirements) to the Contract]. The manual must include a troubleshooting index of common User errors and recommended remedial actions.

10.3.3 System Administration Manual. Contractor must develop a System administration manual that includes detailed technical functions and operations for each Solution component, as well as a troubleshooting guide for all error conditions. The System administration manual must include, at minimum, the following:

a. User management,

b. NLRS Solution security,

c. Application of Software patches and upgrades,

d. Data table maintenance and configuration,

e. Offline processing,

f. Interfaces,

g. Report development and maintenance, and

h. Offline schedules – Jobs and dependencies (daily, weekly, monthly, annual).

Deliverable 10.3 – Solution and User Documentation Completed

a. Training Documentation

b. User Manual

c. System Administration Manual

10.4 Subtask 10.4 – Training Course

10.4.1 System Administration Training

This course must cover Solution management functions performed by the System administrators. This course must be at least four hours long for approximately ten participants. The course must provide hands-on technical training, for County technical staff, on the Solution components listed below:

a. Table-driven configuration,

b. User-Interface configuration,

c. Security configuration,

d. Workflow configuration,

e. User ID setup and management,

f. System configuration,

g. Interface management,

h. Solution's Third-Party Software,

i. Assistance with custom reports,

j. Audit trail research and data,

k. Database administration, and

l. Dashboard configuration.

10.4.2 System Administration Training

This course must cover NLRS Solution management functions performed by the NLRS System administrators. The course must provide hands-on instruction on using the tools provided in the NLRS Solution for accessing/printing statistical reports at the Law Enforcement (LE) agency level, assigning roles and permissions to User accounts, conducting audit trail queries for LE agency-assigned Users, and other management inquiries. The course must be held four times with a duration of at least four hours long for approximately 30 participants for each course.

10.4.3 NLRS Help Desk Training

This course must provide a technical overview to the CFMB help desk staff of the NLRS Solution's overall functionality and provide methods in managing/resolving incidents quickly and effectively. This course must be at least four hours long and will accommodate approximately ten participants.

10.4.4 Train-the-Trainer (T3) Instructor Training

This course must cover all NLRS end-User component functionality within the NLRS Solution, including computer-based training tools. Contractor must conduct the T3 course for CFMB staff responsible for training the end-Users. The course must review the training Documentation that will be distributed to the end-User, provide T3 staff with course direction, and all

other informational topics/matter. The course must be at least four hours long and will accommodate a minimum 40 participants.

10.4.5 Participate in End-User Training

Contractor must participate in not less than four NLRS T3 courses, monitoring end-User training conducted by CFMB instructors, as designated by County Project Manager, and at minimum:

a. Answer any questions or issues brought up during the course, when prompted by the CFMB instructor conducting the training,

b. Provide the CFMB instructor with recommendations on improvements for future courses at the end of each course, and

c. Document any revisions necessary to the training materials and/or Solution functionality.

Contractor must provide County Project Manager with a written recap of each of the findings from the end-User trainings. Contractor must make any revisions specified by County Project Manager.

Deliverable 10.4 – Training Completed

11.0 Task 11 Establish the Secondary Data Center's Post-Production Test Environment and Backup Recovery Site

Contractor must establish the post-Production Test Environment and backup recovery site at the secondary data center, both based on the specifications in the TAD [refer to Paragraph 4.2 (Subtask 4.2 – Technical Architecture Document) above] and IAD [refer to Paragraph 5.1 (Implementation Strategy, Updated) above]. The post-Production Test Environment will be used to test patches, updates, upgrades, etc., prior to the County's acceptance thereof.

Contractor's secondary environment build must include (as applicable):

a. System Hardware, infrastructure, and physical facilities,

b. Operating Software, database management system, network, virtualization,

c. Network connectivity required within the scope of this Project,

d. Access controls as appropriate for authorized Contractor and County Project team members to install, configure, maintain, and use Application Software and middleware,

e. Baseline/Customized COTS Solution,

f. Baseline Configuration,

g. Installation and configuration of FR and SMT Algorithms,

h. Any required Third-Party Software or toolsets,

i. Establishing and testing NLRS System Interfaces,

j. Processes and mechanisms for security administration, including applicable integration with network security, workstation sign-on, and data center security,

k. Processes and mechanisms for integration and change control, including controlled migration of Software, data, User profiles, etc., from one environment to another, and change-control procedures,

l. Processes for database administration,

m. Backup and recovery operations,

n. Processes for performance,

o. Processes and mechanisms for incident tracking and troubleshooting,

p. Installation and configuration of components monitoring including:

   i. Converted data,

   ii. Entering initial User ID's,

   iii. Profiles,

   iv. Security,

   v. Testing User accounts,

   vi. Scheduled offline processes, and

q. Connection to primary site from Deliverable 7.1, (Pre-Production Environment Established), using Contractor-provided dedicated communication line [refer to Paragraph 5.1.2 (Hardware – Contractor's Hardware Deployment Approach, Updated) above].

Deliverable 11 – Secondary Data Center Environment Established

Secondary data center environment and dedicated connection will be reviewed and approved by County Project Manager.

12.0 Task 12 Transition to Production – System Implementation and Production Cut Over

Prior to transitioning the pre-Production Environment into the Production Environment, Contractor must perform Solution final testing and preparedness for the County's authorization, assuring that the NLRS Solution is certified fully functional and ready for Production Use.

**The County envisions a phased implementation of NLRS. During the phased approach, Users can perform work on either the legacy NICE NLRS or the new NLRS. Contractor must provide Data Conversion for all data entered into NLRS during the phased implementation.*

Final Testing of Completed Production Solution: Setup and Certification

12.1 Contractor must conduct a final test of the completed Production Solution [System setup and infrastructure (refer to Paragraph 5.1.3 (Test Strategy, Updated) above)], including a repeat of:

a. The Operational Readiness Test,

b. User Acceptance Test Review, and

c. Performance Test.

12.2 Contractor must correct defects identified and documented during the final testing of completed System setup and infrastructure within a reasonable time specified by County Project Manager (based on the circumstances).

12.3 After all defects are corrected, Contractor must re-execute the System setup and pre-production test to demonstrate readiness for certification by the County and Contractor. Contractor and County Project Manager will certify, in writing, that the tests have been completed, the results are acceptable, and that the Project is ready for cutover.

Deliverable 12 – Certification of Production Solution

Deliverable 12, Production System has been delivered, reviewed, approved, and certified in accordance with the document review process described in Attachment A.2 (Deliverable Acceptance Process) to Exhibit A (Statement of Work) to the Contract.

13.0 Task 13 NLRS Solution Go-Live, Warranty Period and Final Acceptance

13.1 Subtask 13.1 – NLRS Go-Live

13.1.1 The County plans on a phased Solution Go-Live period of 14 Days. Contractor must update the IAD (Deliverable 5 - Completed Implementation Assessment Strategy) as necessary or at the direction of County Project Manager. Contractor and the County will coordinate all the steps required for the NLRS Solution's phased Go-Live. All NLRS Interfaces [refer to Attachment A.3 (System Interfaces) to Exhibit A (Statement of Work) to the Contract] identified as required at Go-Live must be operational and Deficiency-free. During the phased Solution Go-Live, and until the County concurs with Final Acceptance (refer Paragraph 13.4 below), Contractor must:

a. Monitor the NLRS Solution while on-site by documenting/maintaining incident logs by Severity Level, and track the non-critical issues for future resolution,

b. Analyze System performance and usage and, if necessary, promptly notify County Project Manager if problematic,

c. Retrieve data entered by Users in the legacy system daily and upload data into the NLRS Solution,

d. Coordinate with the County all major Deficiency(ies), for Contractor's correction and testing/retesting by the County,

e. Monitor and report all Solution regression issues discovered by either Contractor or the County, and

f. Assist the County in verifying that the NLRS Solution meets Final Acceptance Criteria.

Contractor must provide the above support for a minimum period of 90 Days beginning upon completion of the 14-Day phased Go-Live. Upon completion of this Subtask, the NLRS Solution must be in full Production, where Users are only using the NLRS Solution and not the legacy system.

13.1.2 NLRS Go-Live Summary Report

Contractor must produce an NLRS Go-Live summary report that includes:

a. The Production cutover process to Go-Live that occurred, identifying modifications made from the Production Cutover Plan,

b. An evaluation of the cutover process, identifying which processes were successful as planned versus which processes were problematic,

c. Problems and anomalies encountered and subsequently resolved during the cutover process, detailing the activities (including time, place, and personnel) involved in identifying, communicating, troubleshooting, and resolving these matters, and

d. Remaining problems, Deficiencies by severity level, issues, and risks, along with plans for their resolution and the anticipated timetable for resolution. If Deficiencies are identified, Contractor may be required, at County Project Manager's sole discretion, to repeat all of Task 13 to ensure successful cutover and Final Acceptance. Certification and the County's Final Acceptance [refer to Subtask 13.4 (Subtask 13.4 – Final Acceptance Criteria and Verification) below] will be withheld until all Severity Level 1 and Severity Level 2 (refer to Paragraph 13.2.3 below) issues are resolved to the County's satisfaction.

Deliverable 13.1 – NLRS Go-Live Completed

Cutover to Production process and Go-Live occurs, and Contractor provides the NLRS Go-Live Summary Report for County Project Manager's approval.

13.2 Subtask 13.2 – Warranty Period, 90-Days: Maintain and Support the Production Solution

13.2.1 Contractor must maintain and support the NLRS Solution during the Warranty Period upon Go-Live. Contractor's maintenance and support Services during the Warranty Period must be for 90 consecutive Days, in accordance with Paragraph 13.1.1 above and Exhibit C (Service Level Agreement) to the Contract.

13.2.2 The NLRS Solution must operate free from defects during the Warranty Period, as specified in Paragraph 7.17 (Solution Warranty Period) in Exhibit A (Statement of Work) to the Contract.

13.2.3 Any identified Deficiency categorized as Severity Level 1 or Severity Level 2 must be corrected by Contractor within a reasonable time period agreed to by Contractor and County Project Manager. Upon successful correction of all such Deficiency(ies), the Warranty Period will restart until the NLRS Solution functions Deficiency free for 90 consecutive Days.

Deliverable 13.2 – Warranty Period: Maintenance and Support Completed

a. Contractor maintains and supports the NLRS Solution as specified in Subtask 13.2 above.

b. Warranty Period support will be reviewed and approved by County Project Manager on an ongoing basis.

13.3 Subtask 13.3 – Transfer of NLRS Solution Administration Responsibilities

From Project inception through the Warranty Period, Contractor maintains all responsibility for the NLRS Solution. During this period, Contractor must transfer all applicable Solution administration to County technical staff. Following the successful transition, the County will then take responsibility for Solution administration.

Deliverable 13.3 – Transfer of Solution Administration Responsibilities

Transfer of Solution administration responsibilities will be reviewed and approved by County Project Manager.

13.4 Subtask 13.4 – Final Acceptance Criteria and Verification

Upon the County's: a) certification of Deliverables 1 through 13, b) Contractor's completion of the two-week phased Implementation Period from the legacy system, and c) the successful execution of a consecutive 90-day Warranty Period, the County in its sole discretion will confirm Final Acceptance of the Solution.

Deliverable 13.4 – Final Acceptance Certificate

Final Acceptance Certificate – Upon the County's verification that Contractor's NLRS Solution has met the Final Acceptance criteria, County Project Manager will deliver Contractor's Final Acceptance certificate evidencing the achievement of Final Acceptance.

14.0 Task 14 Post-Implementation Maintenance and Support [Ongoing]

14.1 Contractor must provide post-implementation M&S Services as specified in Exhibit C (Service Level Agreement) to the Contract, for the valuable consideration specified in Exhibit H (Pricing Schedule) to the Contract.

14.2 At the conclusion of the third year of the Contract following Final Acceptance, and every four years thereafter should the Contract be extended beyond the original Term, a Technology Refresh must occur. Contractor must provide a Technology Refresh for all or any subset of the Solution (both hardware and software) located

at both the primary and secondary data centers as determined by County Project Director. The Technology Refresh will be procured, delivered, and installed by Contractor as Optional Work, payable by the County utilizing Pool Dollars pursuant to Paragraph 3.3.4 (Optional Work) of the Contract.

14.3 Contractor must provide, at no cost to the County, annual registration for up to three County staff to attend Contractor's annual User conferences, which attendance must be for the entire event.

Deliverable 14 – Post-Implementation Support

Contractor's M&S Services will be monitored by County Project Manager on an ongoing basis.

15.0 Task 15 Post-Implementation Professional Services, As-Needed

Contractor must deliver as-needed Professional Services to provide Optional Work which may include, among other things, additional training. The Optional Work process is defined in Paragraph 3.3.4 (Optional Work) of the Contract.

Deliverable 15 – Post-Implementation Training Conducted

ATTACHMENT A.2
DELIVERABLE ACCEPTANCE PROCESS
FOR
NETWORKED LOGGING RECORDER SYSTEM

1. **Notifying the County of an Expected Delivery** - At least one week before a Deliverable is to be delivered to the County, in accordance with the Project Control Document (PCD) project schedule, Contractor must notify the County via email of the planned delivery. The notice should indicate the name of the Deliverable, the Deliverable number as listed in Attachment A.1 (Tasks and Deliverables) to Exhibit A (Statement of Work), which is also identified for invoicing, the item number as listed in the work breakdown structure in the PCD, the version number, and the expected date of delivery. Contractor may include or attach a list of recommended criteria for the County to use in reviewing the Deliverable, although the County reserves the right to use different criteria as it deems appropriate within the agreed-upon scope of this project. Contractor may skip this step for Deliverables that are maintained on an ongoing basis or regularly submitted monthly or more frequently, such as status reports and schedule updates.

2. **Preparing the Deliverables**
   a. Document Deliverables - Contractor must prepare the document as an electronic MS Word file (unless otherwise stated in the subject Task), with the file name as follows: XXX System Deliverable [name of deliverable] version [version number]. Contractor must also deliver five paper copies of any charts or tables that exceed 8 ½ x 14 inches.
   b. Desktop software Deliverables - such as large data tables, Microsoft Project or Excel files, System mock-ups, etc.- where the Deliverable cannot be thoroughly reviewed as a PDF file but can be opened or executed on a Department desktop computer. Contractor must prepare a file using the same naming convention as the document Deliverables.
   c. Software or data Deliverables to be installed into the System - Contractor must prepare the file(s) in accordance with a naming convention and change-control procedure to be determined.
   d. Continuous Deliverables—such as ongoing logs, etc., Contractor must prepare a written description of the Deliverable when the initial version is ready for review.

3. **Transmitting the Deliverable**
   a. Document and Desktop-software Deliverables - Contractor must email the Deliverable to the County. The email must have the Deliverable's name and version number in the email's subject line, and the body of the email must serve as a cover letter indicating that this is a formal delivery. If a file is too large to send via email attachment, Contractor must place the file on the project's SharePoint site (or a similar arrangement) and insert the link to that specific file into the body of the email.
   b. Software or data Deliverables to be installed into the System - Contractor must electronically load and install the files into the test environment through a formal change-control process. Contractor must notify the County by email as soon as the software has been delivered, with the Deliverable's name and version number in the email's subject line. When the Deliverable is transmitted, Contractor must also submit a Task/Deliverable Acceptance Certificate in accordance with Paragraph 3.8 (Approval of Work) of the Contract. County Project Manager and

County Project Director will sign this form when the Deliverable is accepted (in Step 6 below).

4. **Reviewing the Deliverable** - A Deliverable is considered "out of sequence" when preceding Deliverables (based on the sequence shown in the PCD's project schedule) have not yet been delivered and accepted. The County may, at its discretion, postpone its review of an out-of-sequence Deliverable until all preceding Deliverables have been accepted.
   a. Document Deliverables - All delivered documents are considered DRAFT submissions, subject to review and approval by County Project Manager. The County will distribute copies of the Deliverable to designated reviewers, who will identify any deficiencies and needs for improvement.
   b. Software or data Deliverables to be installed into the System – The County will, with Contractor assistance, exercise or test the System with the delivered software installed, and make detailed notes of any deficiencies, anomalies, and needs for improvement.
   c. Other Deliverables – The County may require Contractor to conduct a demonstration or walkthrough of the Deliverable as part of its review.

5. **Preparing the Deliverable Response** – The County will consolidate and integrate reviewer notes into a well-organized written Deliverable Response that clearly explains what is deficient, questionable, or needs improvement, and if relevant, reference any specific requirements or criteria. The Deliverable Response must indicate either that (a) the Deliverable is accepted or (b) the Deliverable needs to be revised and go through another review cycle.
   a. Transmitting the Deliverable Response – The County will email the Deliverable Response to Contractor, and/or hold a conference call/meeting to present and discuss the Deliverable Response.
   b. Discussing the Deliverable Response – Contractor may request to discuss the Deliverable Response with the County, and the County may revise the Deliverable Response.
   c. Revising and Resubmitting the Deliverable - If the Deliverable Response indicates that the Deliverable needs to go through another review cycle, Contractor must revise the Deliverable based on the County's feedback in the Deliverable Response. Contractor must submit the revised Deliverable using sequential version numbers (or release number) to identify each revision submitted, along with the revised Deliverable. The County reserves the right to ignore or make retroactive changes to any item where a change has not been clearly and completely called out. Each time a revised version of the Deliverable is submitted, it must go through all the steps in this process again.
      i. Contractor must submit a **Response Tracking Sheet** which indicates how each item on the Deliverable Response was addressed in revising the Deliverable.
      ii. Contractor must maintain a **Deliverable Change Log** that clearly points out (a) what has changed since the previous version of the Deliverable and (b) all cumulative changes from the initial submitted version.

6. **Accepting the Deliverable** - When the Deliverable Response indicates that the Deliverable is accepted, County Project Manager and County Project Director will sign the Task/Deliverable Acceptance Certificate and the Process ends. A copy of the signed Task/Deliverable Acceptance Certificate will be provided to Contractor. For **document deliverables**, the word "final" is added to the end of the file name.

7. **Maintaining the Deliverable**
   a. For one-time Deliverables - After a Deliverable has been accepted, any further changes must be made in accordance with the Change Notice process specified in Paragraph 10.1 (Amendments and Change Notices) of the Contract. The County will own the Deliverable and may incorporate its contents, or portions thereof, into any subsequent work products as the County deems fit. Contractor must keep a copy of the final Deliverable, and any amendments in its project records.
   b. For continuous Deliverables - Ongoing Project Management (Task 2): Contractor must maintain, administer, and update the Deliverable(s) in accordance with applicable specifications and purposes. From time to time, the County may review the status of the Deliverable(s) and will indicate to Contractor any deficiencies that require reworking.

8. **Deliverable List**

Deliverable	Pay Points	Cost
Deliverable 1 – Completed Project Control Document		
Deliverable 2 – Ongoing Project Management		
Deliverable 3.1 – Requirements Review		
Deliverable 3.2 – Completed Requirements Review and Demonstration/Gap Analysis		
Deliverable 4 – Completed Infrastructure and Technical Assessment		
Deliverable 5 – Completed Implementation Assessment Document		
Deliverable 6 – Completed Customized COTS Solution Design Review and Final Design		
Deliverable 7.1 – Pre-Production Environment Established		
Deliverable 7.2 – Contractor's Customized COTS Solution Completed		
Deliverable 7.3 – Contractor's Customized COTS Solution Reviewed/Approved/Certified		
Deliverable 8.1 – Initial Data Conversion Completed and Certified		
Deliverable 8.2 – Ongoing Data Conversion and Cleansing		
Deliverable 9.1 – Pre-Production Test Plan Finalized		
Deliverable 9.2 – System Interfaces Tested and Certified		
Deliverable 9.3 – Completed Integration Tests and Certification		
Deliverable 9.4 – Completed Initial Operational Readiness Tests and Certification		
Deliverable 9.5 – Completed Performance Tests and Certification		
Deliverable 9.6 – Completed and Certified Acceptance Tests and Certification		
Deliverable 10.1 – Training Environment Established		
Deliverable 10.2 – Final Training Plan		
Deliverable 10.3 – Solution and User Documentation Completed		
Deliverable 10.4 – Training Completed		

Deliverable	Pay Points	Cost
Deliverable 11 – Secondary Data Center Environment Established		
Deliverable 12 – Certification of Production Solution		
Deliverable 13.1 – NLRS Go-Live Completed		
Deliverable 13.2 – Warranty Period: Maintenance and Support Completed		
Deliverable 13.3 – Transfer of Solution Administration Responsibilities		
Deliverable 13.4 – Final Acceptance Certificate		
Deliverable 14 – Post-Implementation Support		
Deliverable 15 – Post-Implementation Training Conducted		

ATTACHMENT A.3
SYSTEM INTERFACES
FOR
NETWORKED LOGGING RECORDER SYSTEM

NRLS Interfaces/Specifications					
#	Name	Description	Purpose	Internal (Department/County) or External	Required at or After NLRS Go-Live
Existing NRLS Interfaces					
1	Next Generation Vesta 911	California / AT&T 911 Telephone System	911 calls are received and transferred through this system	External	At Go-Live
2	LA-RICS	Department Digital Radio System	Transmits and receives radio voice/data through digital radio frequencies	Internal	At Go-Live
3	Cisco VOIP	Cisco VOIP Telephone system	Standard business telephone lines for all facilities	Internal	At Go-Live
4	Cisco CUCM	Cisco Unified Communications Manager	VOIP technology support for Public Safety Answering Points (PSAPs)	Internal	At Go-Live
5	Analog Telephone	Analog telephone systems	Standard business lines at some Department facilities	Internal	At Go-Live
6	Analog Radio	Analog Radio transmissions	Transmitted and received radio voice/data through analog radio frequencies	Internal	At Go-Live
7	Rapid SOS	Portal Emergency Interface	Links data to 9-1-1 and first responders	Internal	At Go-Live
8	Microsoft Active Directory	Microsoft Active Directory managed user accounts	Active Directory contains lists of users authorized to access the system	Internal	At Go-Live
9	CAD	Computer Aided Dispatch	Interface 9-1-1 recordings	Internal	At Go-Live

NRLS Interfaces/Specifications					
#	Name	Description	Purpose	Internal (Department/County) or External	Required at or After NLRS Go-Live
10	RMS	Records Management System	Interface 9-1-1 recordings	Internal	At Go-Live
11	AIS	Automatic Identification System	Interface with LA-RICS	Internal	At Go-Live
12	ANI/ALI	Automatic Number Identification/Automatic Location Identifier	Interface with CAD	Internal	At Go-Live
13	GEO Search	GEO search/view maps	Interface with CAD	Internal	At Go-Live

ATTACHMENT A.4
HARDWARE AND SOFTWARE DELIVERY LIST AND SPECIFICATION SHEET FOR NETWORKED LOGGING RECORDER SYSTEM

[PLACEHOLDER; SEE EXHIBIT 7 (HARDWARE AND SOFTWARE DELIVERY LIST AND SPECIFICATION SHEET) OF APPENDIX B (REQUIRED FORMS)]

ATTACHMENT A.5
PROJECT CONTROL DOCUMENT
AND SPECIFICATION LIST
FOR
NETWORKED LOGGING RECORDER SYSTEM
(PLACEHOLDER)