## Document Control Sheet

#### **General Information**

Project Name	Project Manager	Business Owner (Key Sponsor)	Provider Single Point of Contact

## **Document Preparation Information**

Author	Date	Organization Name

## **Distribution and Approvals**

Name	Title and Organization	Signature	Approval Date

## **Change History**

Date	Change Description	Approved By

**Comment [CS1]:** Drafting comment: I have added page numbers for ease of reference. Once we have a finalized contract, we can have Word start the numbering for this section at the next logical page number after the last page of the contract document. In which case, the final signed contract would be one package, so incorporation by reference would be unnecessary. Or we can treat as a separate document incorporated by reference. I leave that to DC911's preference.

**Comment [CS2]:** Second Drafting Comment: note that I turned off track changes for purely formatting corrections (getting rid of paragraph numbers, realigning paragraph margins, etc). All substantive changes, including just correcting a misspelled word, were made with tracking turned on. This was done to keep our focus on substantive issues that require review and discussion.

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## **Statement of Purpose**

This Statement of Work (SOW) defines the principal activities and responsibilities of both Tyler Technologies and the Client for the implementation of the integrated System as defined in the Agreement. The Project consists of the delivery, installation, configuration, testing, training, and go-live of the Licensed Software described in the Agreement. Additional work activities and software functionality not described in the Statement of Work or Agreement will be considered a change to this project and will require a Change Order.

The integrated software suite shall be provided by Tyler to replace Client's existing Computer Aided Dispatch (CAD) and Mobile Computing (Mobile) system and transition the client from version 10.x to version 11.x of Tyler's Records Management (RMS) and Field Reporting System.

The software provided by Tyler will be the latest version available at the time of initial software installation and will be the product version used for production operation cutover. If a major software release occurs during project implementation, Tyler and Client will jointly review and decide if the new release should be applied to the project.

The SOW guides both Tyler and the Client on the primary activities and responsibilities necessary for a successful implementation. The SOW documents project implementation requirements, identifies each major task within the implementation process, sets expectations for each entity and identifies the criteria necessary for task completion. Tyler and Client will use this Statement of Work as a guide for managing the implementation of the Tyler project as provided and described in the Agreement.

## **General Project Responsibilities**

#### **Key Factors for Project Success**

To complete a successful project, Client team's engagement and support is required in a number of areas.

#### Project Ownership

- Project ownership is shared between Client and Tyler teams
- Executive sponsors from Client team and Tyler will collaborate to manage through strategic issues, help drive change management and maintain consistent communication throughout the project

## **Client Executive Sponsor Engagement**

- Provide leadership and clear direction to Client project team
- Allocate sufficient and qualified resources
- Confirm achievement of all milestones and deliverables after each phase of the project
- Track progress and resolve issues during executive milestone reviews
- Ensure that the assigned resources adhere to timeframes and schedules
- Partner with the Tyler Executive Sponsor to resolve any disputes that may arise
- Work as a team with Tyler to drive and promote change and take advantage of best practices

#### **Change Management**

- Client is responsible for managing change within its organization
- Limit the scope of changes that may delay implementation or increase the cost of the project
- Provide consistent coaching and reassurance from the leadership team
- Provide extra effort to manage change during the implementation period
- Explain the differences and overall benefits of the new solution to users

#### **Stable Environment and Infrastructure**

- Adhere to Tyler specifications for hardware, software and infrastructure as documented in the Agreement
- Manage and maintain the necessary network bandwidth and stability as documented in the Agreement
- Adhere to industry-standard practices when managing security, network and database resources
- Establish organization-wide policies and procedures to govern use of hardware, software and networks as they pertain to the use of Tyler products and Third Party products to which they Tyler products interface.

#### **Project Management Responsibilities**

#### **Tyler Project Management**

The key tasks and related project deliverables that comprise the work breakdown structure (WBS) of the

Project Implementation Methodology are described in detail in this document. The full WBS is embedded in the Project Schedule template (.mpp), which is used in conjunction with this methodology.

Project management occurs throughout the project and is a component of every task. Overall project management activities for both Tyler and the Client are listed here for reference.

Tyler Project Management Team responsibilities include the following:

- Maintaining project communications with Client's Project Manager
- Managing the efforts of the Tyler staff and coordinating Tyler's activities with the Client's Project Manager
- Conducting regular status meetings with the Client's Project Manager
- Conducting regular project review meetings with the Client's Project Manager via telephone conference calls
- Responding to issues raised by the Client's Project Manager in a timely manner
- Preparing and submitting regular status reports
- Preparing and submitting project Change Orders to the Client's Project Manager as necessary
- Providing all documentation, 10 business days in advance of meeting or call.
- Preparing and submitting key project milestones signoff documents to the Client's Project Manager

Tyler will manage project scope in the following manner:

- Pre-Trip reports will be sent for each task that Tyler is assigned to 10 days in advance of the scheduled task
- Post-Trip reports will be sent within 3 days of the completion of the task
- Implementing Standard Software and Managing Project Scope
  - Adopt best practices to implement and use the standard solution optimally
  - Existing business processes may need to be modified
  - Changing requirements or delayed sign-offs may delay project and increase cost
- Non-Standard deliverables require a signed Requirements Document (RD)
  - RD is drafted by Client and a Tyler Solutions Consultant
  - RD is reviewed by both Client and a Tyler Project Manager
  - Client signs off on RD
  - Tyler only begins development after receiving a signed RD

#### **Client Project Management**

Client Project Management Team responsibilities include the following:

- Maintaining project communications with the Tyler Project Manager
- Managing the efforts of the Client's staff and coordinating Client activities with the Tyler Project Manager
- Providing input to Tyler for creation of the regular status reports
- Ensuring Client personnel have ample time, resources and expertise to carry out their respective tasks and responsibilities

- Participating in the status meeting with the Tyler Project Manager on a monthly basis or as may
  otherwise be reasonably required to discuss project status
- Providing responses to issues raised by the Tyler Project Manager in a timely manner
- Ensuring all documents are provided 10 business days in advance are reviewed by the Client prior to documented activities.
- Serving as liaison with all Client-provided third-party vendors and associated systems
- Ensuring that acceptable Change Orders are approved by authorized signature(s)
- Ensuring that timely signoff of key project milestones is provided
- Ensuring timely payment of invoices
- Ensuring that Tyler personnel have access to server and network equipment and work areas necessary to complete its work
- Providing workspace for Tyler personnel as reasonably requested

## **Escalation Policy**

- Client identifies an issue and categorizes it as a product, project or business issue
- Client contacts their Tyler Project Manager and provides detailed documentation of the issue
- If the Project Managers cannot resolve the issue, they will jointly and in writing, raise it to their
  respective Executive Sponsors for resolution

#### **General Project Assumptions**

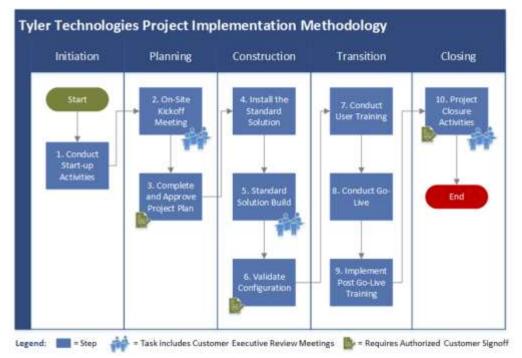
- Work will be performed at Client's location and Tyler's project offices and will be performed on business days during Client's normal business hours, except when both parties agree otherwise.
- Training will take place during normal business hours, which are typically from 8:00 a.m.to 5:00 p.m. Monday through Friday, and will not exceed eight (8) hours per 24-hour period. Nonstandard training hours may be accommodated upon mutual agreement. Training arrangement for non-participant observers may be made upon mutual agreement.
- Client is responsible for providing the hardware including servers, desktop and mobile computers, and ancillary equipment supporting the Tyler applications.
- The operation and availability of the external systems to which the Tyler applications interface is the responsibility of the Client.
- Client is responsible for ensuring third parties maintain in good working order the third-party systems to that interface with Tyler software as part of this project.
- Client, with assistance from Tyler, will be responsible for testing of the software, including configuration specific to the Client.

#### **Tyler Project Methodology Overview**

The focus of Tyler's Project Manager, Project Support Office (PSO), services team, support team and all personnel associated with this project is to assist the Client in completing their project successfully.

Since its inception, Tyler has successfully completed thousands of Client projects and developed a standard project management methodology that is predictable, repeatable, lowers risk and maximizes Client success. This standard approach, the Tyler Project Implementation Methodology (PIM), is based upon a combination of Project Management Institute (PMI) Project Management Book of Knowledge (PMBOK)© principles and the experience of Tyler project management in deploying public safety solutions.

The following diagram outlines our Project Implementation Methodology. Although the steps on the diagram are sequential, over time, steps will overlap.



The Tyler PIM is the standard process that Tyler follows for all project implementations. Projects are divided into five distinct phases during implementation:

- Initiation Conduct Start-up Activities
- Planning Create and approve the Project Plan

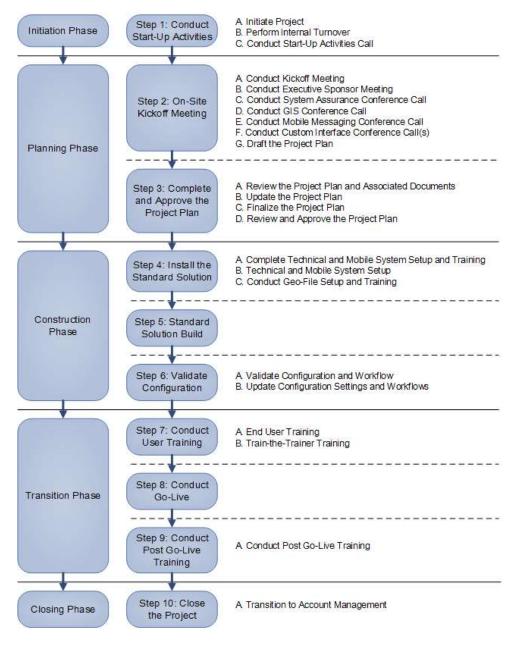
- Construction Execute the Project Plan to build, configure, test and review the system to verify system readiness
- Transition Train users, execute go live, complete post-go live activities
- Closing Review and approve the project closure, disengage project management and formally transfer Client to Account Management team

Each phase consists of one or more steps comprised of one or more tasks as described in this Statement of Work. The description for each task includes:

- Tyler responsibilities Tasks that Tyler staff is responsible to complete
- Client responsibilities Tasks that Client staff is responsible to complete
- Prerequisite tasks Items that must be completed prior to the start of the step and are used during the step
- Deliverables Items that must be completed and delivered during the step and are requirements in order to consider the step complete

At the completion of each task, Tyler will provide formal notification a completion for the Client's review and approval. Should there be an issue with a particular task, Client will provide a written response identifying the issue within ten business days of receiving the notification.

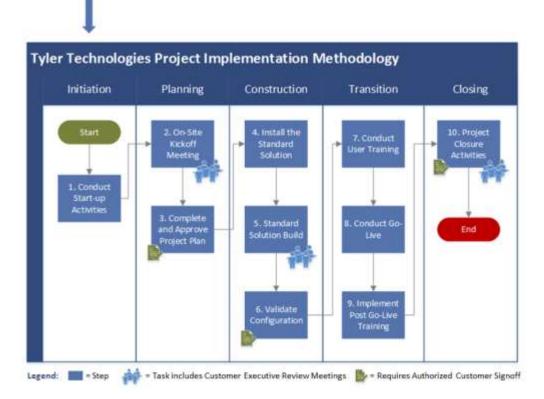
## **WBS Overview**



## **Phase: Initiation**

Purpose: Engage project management, establish initial communication channels and begin planning.

**Description of Phase:** The Initiation Phase consists of one step. During this phase, the Tyler and Client Project Managers are assigned and the Tyler Sales representative initiates the formal transition of the project to the Tyler Operations team. This team includes Executive Sponsorship, Project Support Office (PSO) governance and Project Management members. In this phase, the Operations team establishes a foundation for program governance and retention of project artifacts and takes ownership of Client communications and execution of the Agreement.



#### Step 1: Conduct Start-Up Activities

#### A. Initiate Project

Overview

Following execution of the Agreement, Tyler will initiate the Client's project. Internally, the Tyler Project

Support Office (PSO) will establish the framework for project execution and governance (e.g., project metrics/status reporting, project artifact storage) and assign execution of the Agreement to a delivery team (e.g., Executive Sponsor, Project Manager). The Tyler Project Manager will then contact the Client Project Manager to set the date and time for a Start-Up Activities conference call.

#### Tyler responsibilities:

- Internally initiate the project at Tyler and establish an internal framework for governance
- Contact Client Project Manager to schedule Start-Up Activities conference call

#### Client responsibilities:

Provide availability for the call

## Prerequisite tasks:

Execute Agreement

#### **Deliverables:**

- Initial project framework established
- Project Schedule Template created
- Tyler delivery team assigned

#### **B.** Perform Internal Turnover

#### Overview

The assigned Tyler Project Manager will coordinate and facilitate an internal turnover meeting with key staff members associated with project planning, development and implementation. Key staff members include:

- New Account Sales / Client Care Manager
- Solution Consulting Practice Manager(s)
- Solution Consulting Administrative Assistant
- System Assurance Manager / Technical Lead
- PSO Manager
- Project Manager
- Professional Services Manager
- Interface Manager
- Others as needed

#### Tyler responsibilities:

Individual responsibilities are as follows:

#### Project Manager:

- Review the Agreement
- Review the Turnover Document
- Coordinate and schedule the internal turnover meeting

- Create and distribute a meeting agenda
- Conduct the meeting
- Facilitate a discussion that defines delivery structure and proposed project schedule for this project (e.g., application build approach)
- Initiate the Project Management Workbook
- Document action items, issues and risks in the Project Management Workbook

## Other Tyler Employees:

- The PSO will create an initial Project Plan where the WBS is aligned with the deliverables defined in the Agreement
- Each attendee will review all project-related information, i.e., Agreement, internal documentation, meeting agenda, etc.
- Attendees will prepare questions and observations requiring further discussion
- Attend meeting and discuss agenda items
- Document and follow-up on any items requiring their attention

#### Client responsibilities:

None

#### Prerequisite tasks:

- Complete turnover Document (internal document)
- Execute Agreement
- Complete Initial Project Plan Template

#### **Deliverables:**

- Initial Project Management Workbook that includes:
- Governance Structure, Including Roles and Responsibilities
- Communication Plan
- Risk Management Plan
- Action Items
- Project Plan / Schedule

#### C. Conduct Start-Up Activities Call

#### Overview

The Project Manager will facilitate a conference call with the Client Project Manager. The objectives for this call are:

- Discuss Kickoff Meeting agenda and objectives
- Set a date for the on-site Kickoff Meeting and discuss site preparation

#### Tyler responsibilities:

- Provide an agenda for the Start-Up Activities call
- Arrange and coordinate the Start-Up Activities call

## Client responsibilities:

- Schedule Client resources to participate in the call
- Prepare for the call and discuss agenda items during the call

## Prerequisite tasks:

Complete Internal turnover

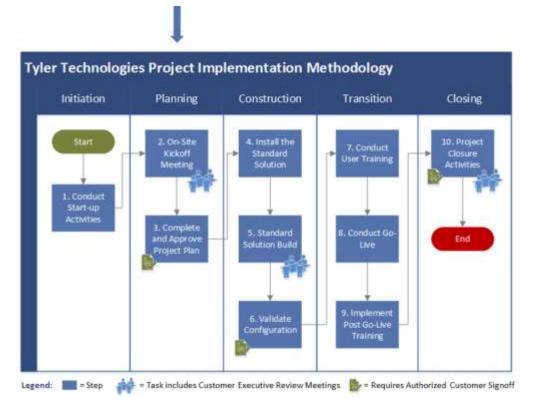
## Deliverables:

- Start-up Call
- Date for Kickoff Meeting

## **Phase: Planning**

Purpose: Create and approve the Project Plan.

**Description of Phase:** The Planning Phase consists of two steps. Tyler and Client Project Managers organize the project, establish project teams, confirm requirements and develop the Project Plan. They will then obtain senior management approval for the Project Plan.



#### Step 2: On-Site Kickoff Meeting

#### A. Conduct Kickoff Meeting

## Overview

The Kickoff Meeting is a meeting during which the Tyler Project Manager provides the Client Project Team and other key stakeholders with an overview of the project. Tyler will describe project scope, project methods, project acceptance criteria and governance. Key topics include:

Identification of Client Executive Sponsor(s) to the Project Team

- Review of project scope
- Overall implementation strategy, roles, responsibilities and keys to project success

After the Kickoff Meeting, Tyler will update the Initial Project Management Workbook and provide a copy to Client.

Key meeting participants typically include:

- Tyler Senior / Executive Sponsor
- Tyler Sales Account Executive
- Tyler Project Manager
- Client Senior Management / Exec Sponsor
- Client Project Manager
- Client Project Team
- Client Subject Matter Experts (SMEs)
- Tyler responsibilities:
  - Provide Kickoff agenda at least 10 days prior to the Kickoff meeting
  - Facilitate kickoff meeting
  - Review initial project tasks, responsibilities and time frames

#### Client responsibilities:

- Prepare Client facilities for project meetings (conference rooms, audio visual equipment, etc.)
- Coordinate meeting participation with Client staff and other key stakeholders

## Prerequisite tasks:

- Execute Agreement
- Conduct Start-Up Activities call
- Prepare Initial Project Management Workbook

#### **Deliverables:**

- Kickoff Meeting presentation
- Facilitated Kickoff Meeting
- Updated Project Management Workbook

#### **B. Conduct Executive Sponsor Meeting**

#### Overview

The Tyler Executive Sponsor will conduct an approximately one-hour meeting with the Client Executive Sponsor and any other desired Client Executives. The objective for the meeting is to establish executive-level communication and governance of the project. During this meeting, both parties will jointly develop a regularly scheduled series of calls and/or meetings over the life of the project.

#### Tyler responsibilities

- Coordinate the Executive Sponsor Meeting
- Provide input, if desired, as to suggested participants

## **Client responsibilities**

- Participate in the Executive Sponsor Meeting
- Provide a Conference Room for meeting
- Work with Tyler to schedule regular calls and/or meetings

## Prerequisite tasks

Conduct Start-Up Activities call

#### Deliverables

Scheduled calls and/or meetings with Client Executive Sponsor

#### C. Conduct System Assurance Conference Call

## Overview

The Tyler System Assurance Technical Lead will work with the Tyler Project Manager to coordinate and facilitate a conference call with the Client to address system assurance planning /analysis. The objective of this conference call is to ensure that the Client understands what information is needed for the system assurance process, as outlined the Agreement, for installation, hardware quality assurance and message switch assurance services.

## Tyler responsibilities:

- Provide Technical Services Implementation Guide at least ten days prior to the conference call.
- Provide hardware specifications at least ten days prior to the conference call.
- Facilitate a conference call between the Client and Tyler technical resources to address the initial system assurance planning and analysis
- Review and confirm that the suggested hardware, operating system and database specifications meet the needs of the Tyler project.

#### Client responsibilities:

- Review the Technical Services Implementation Guide prior to the conference call.
- Ensure Client Project Manager and technical resources participate in conference call(s) to address the initial system assurance planning and analysis

#### Prerequisite tasks:

- System assurance conference calls scheduled
- Technical Services Implementation Guide
- Hardware Specifications

## Deliverables:

- System Assurance Conference Call Agenda
- Confirmation that suggested hardware, operating system and database specifications meets the needs of this project

#### D. Conduct Geographic Information System (GIS) Conference Call

#### Overview

The Tyler GIS Team will conduct a conference call with Client staff responsible for developing and maintaining the GIS data for the system. The focus of this call will be the process for developing the GIS data for use with Tyler applications. Before the call, Tyler will introduce the parameters for the required GIS layers by providing the Client with a GIS Implementation Packet. After the call, the Client will provide Tyler with its GIS data. Tyler will review the Client's GIS data during the Geofile Setup and Training task and provide feedback on any compatibility issues.

#### Tyler responsibilities

- Coordinate a GIS conference call
- Provide the GIS Implementation Packet at least ten days prior to call
- Explain the GIS implementation packet and the GIS data that is required
- Provide comments and requested changes to Client GIS data based on responses to questions asked during the call

#### **Client responsibilities**

- Participate in the GIS Conference Call
- Supply accurate GIS data in a standard esri format (shape files, personal geo-database, file geodatabase, etc.)
- Follow up on the comments and requested changes from the Tyler GIS Implementation Specialists

#### Prerequisite tasks

Provide GIS Implementation Packet

## Deliverables

- Feedback and comments on Client GIS data
- Completed GIS Conference Call

#### E. Conduct Mobile Messaging Conference Call

## Overview

The Tyler Mobile System Assurance Team will conduct a conference call with Client staff who are responsible for maintaining the Mobile data system. The focus of this call will be the process for implementing the Tyler Mobile Messaging application. Before the call, Tyler will introduce the Mobile Systems Assurance Checklist for review.

#### Tyler responsibilities

- Coordinate the Mobile Messaging conference call
- Provide the Mobile Systems Assurance Checklist at least ten days prior to call

#### **Client responsibilities**

- Schedule appropriate staff for conference call
- Participate in Mobile Messaging conference call

#### Prerequisite tasks

Provide Mobile Systems Assurance Checklist

#### Deliverables

- Updated Mobile Systems Assurance Checklist
- Completed Mobile Systems Assurance Conference Call

## F. Conduct Custom Interface Conference Call(s)

## Overview

The Tyler Interface Team will conduct conference call(s) with Client staff who are knowledgeable on the functionality of the contracted custom interfaces. The focus of these calls will be to discuss expected functionality and start the process of developing Requirement Documents (RDs) for each interface.

## Tyler responsibilities

- Coordinate the Custom Interface conference call(s)
- Understand the Custom Interface Control Document from the Agreement prior to call
- Attend on-site design meetings as needed
- Start process of creating RDs for each interface

## **Client responsibilities**

- Participate in the Custom Interface conference call(s)
- Attend on-site design meetings as needed
- Review the RDs and provide comments and/or requested changes to the Client Project Manager

#### Prerequisite tasks

Complete interface Control Documents (ICDs) or interface description in the Agreement

#### Deliverables

Draft RDs for each interface

#### **G. Develop Requirements Definition Documents for Custom Interfaces**

#### Overview:

Tyler and Client will jointly review the Custom Interfaces defined in the Agreement. In addition, Tyler will develop Requirements Documents (RDs) for custom interfaces and the RDs will adhere to the scope and process outlined in Schedule 2 of the Agreement.

#### Tyler Responsibilities:

- Meet with Client to gather requirements for Custom Interfaces
- Develop draft Requirements Definition Documents for Custom Interfaces
- Provide Client with draft Requirements Definition Documents
- Finalize draft Requirements Definition Documents

#### **Client Responsibilities:**

- Provide information on Custom Interfaces per Tyler requests
- Provide NW with third party contact information
- Review draft Requirements Definition Documents and provide feedback to Tyler
- Approve and sign off on final Requirements Definition Documents

## Prerequisite tasks

None

## Deliverables

- Draft Requirements Definition Documents
- Final Requirements Definition Documents

#### H. Draft Project Plan

#### Overview

The Tyler Project Manager will update the Draft Project Plan based on project meetings and activities completed during the Planning Phase.

#### Tyler responsibilities

Update Project Plan (.mpp)

## **Client responsibilities**

None

## Prerequisite tasks

Initial Project Plan from PSO

#### Deliverables

Updated Project Plan

#### Step 3: Complete and Approve the Project Plan

#### A. Review, Update, and Finalize the Project Plan and Associated Documents

## Overview

Tyler and Client Project Managers will review the information captured during the Planning Phase and finalize key decisions needed to finalize the Project Plan (.mpp) and Project Management Workbook. The Tyler Project Manager will update the Project Plan and then review the updated Project Plan with the Client Project Manager. After making any final updates, Tyler will submit the Project Plan to the Client for final review and approval by both the Client Project Manager and the Client Executive Sponsor. Upon receipt of approval of the Project Plan, Tyler will establish the document as the baseline for the remainder of the project.

Managing the Project Schedule will be an ongoing process. The Tyler and Client Project Managers will regularly review and update the Schedule to accommodate resource availability.

## Tyler responsibilities:

- Meet with the Client Project Manager to review the information documented in the Planning Phase.
- Draft the Project Plan and update as needed per project plan review calls and/or on-site meetings
- Review with Client personnel the identified implementation tasks, priorities, interdependencies, team members, risks, resources and other requirements to approve the final Project Plan
- Finalize the Project Plan and supporting documentation
- Establish clear ownership of activities, deadlines and timeframes for each step of the implementation

## Client responsibilities:

- Help finalize the Project Plan
- In tandem with Tyler project personnel, analyze identified requirements of the Project Plan and make such implementation decisions as are reasonably required to finalize the plan

#### Prerequisite tasks:

- Draft Project Plan (from Task H)
- Project Management Plan documents

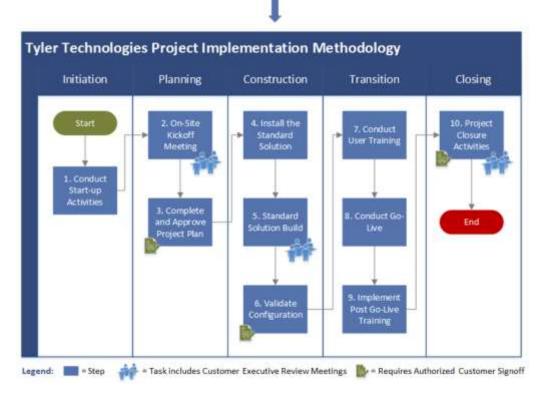
#### Deliverables:

- Updated draft of Project Plan
- Updated Project Schedule
- Proposed Resource Schedule
- Updated Project Management Workbook

## **Phase: Construction**

Purpose: Execute the Project Plan to build, review and configure the system to verify system readiness.

**Description of Phase:** The Construction Phase consists of three steps. During this phase, Tyler and Client Project Managers lead the project, coordinate project team activities, communicate direction, report on project progress and monitor resources. The team's focus during this phase is to execute the Project Plan. Client and Tyler project teams install the applications, attend Review and Build-Out Training sessions, review the configuration, apply final application configuration requirements and lay the groundwork to migrate to the Tyler applications. Success requires commitment from Tyler and the Client to include necessary leadership and governance by both parties over their respective teams.



The methodology diagram indicates that each step of the Construction Phase follows the previous step, but many of these steps occur concurrently.

#### Step 4: Install the Standard Solution

#### A. Finalize Hardware Procurement Specifications

Overview

Tyler will validate and assist in finalizing the Client's system hardware and software configuration

#### requirements.

## Tyler responsibilities:

- Review the Client's final quote / configuration for all system hardware and system software as it relates to the Tyler Systems proposed solution
- Document any deficiencies that are noted with the configuration provided by the Client's vendor. Tyler will make recommendations for necessary modifications to meet minimum operating requirements for the application
- Review with Client the minimum requirements for workstations and mobile data devices as identified in the Client Agreement, as applicable to the application
- Provide Client with system configuration documents that includes the following:
  - Functional system diagram, showing a high-level view of the Tyler Standard Software subsystems and their associated hardware
  - Post Trip Summary of the Environment as Configured for Tyler Software

## Client responsibilities:

- Provide Client technology staff to assist Tyler with the System Configuration specifications
- Provide in writing, information on existing hardware, operating system software components, and network infrastructure, as well as projected utilization statistics (i.e. number of users, number of concurrent users, number of transactions, database sizes) and other information reasonably required to validate final hardware requirements
- Review and approve the final hardware and operating system configuration with the Tyler project team
- Review Tyler's recommendations regarding any hardware, system software, and workstations and make any modifications identified by Tyler to ensure compatibility with the equipment and system to be installed

## Prequisite tasks:

Execute Agreement

## Deliverables:

Confirmation of hardware specifications

## B. Order Hardware

#### Overview

Client and Tyler will each order the hardware and equipment for which it is responsible. Note that Client hardware will need to be installed before application installation can begin.

#### **Tyler Responsibilities**

- Provide hardware and equipment specifications
- Order Message Switch hardware and ancillary equipment

#### **Client Responsibilities**

Order hardware and equipment according to agreed-upon specifications

#### Prerequisite tasks:

Contract execution

Confirmation of hardware specifications

## Deliverables:

Delivery of Required Hardware and System Software

## C. Base System Install

## Overview

Tyler will install version 11.x of its standard software (CAD, LERMS, Mobile Messaging, and Field Reporting) and migrate the existing Tyler databases to the new servers. The install will occur in the production and the test environments.

Client will need to provide client workstations without version 10.x installations for the purpose of configuring the new systems. Tyler will install the CAD client on up to four (4) workstations and train Client staff on how to complete the install. Client will be responsible for all remaining CAD client installations.

After system installation, Tyler will train Client personnel on configuration procedures and provide knowledge transfer to the System Administrators, including how to install software on client workstations, administer servers, manage disaster recovery systems and review any other items of concern related to hardware and software configuration. The training will occur onsite. As part of the training, Tyler will review ongoing Client management expectations of how system will be managed by Client as well as identify role of Tyler vs. Client. Tyler will also provide Client with a System Configuration document that includes the following:

- Identification of any special environmental requirements
- Functional system diagram, showing a high level view of the Tyler Standard Software subsystems and associated hardware

## Tyler responsibilities:

- Install and configure the application software on the new servers
- Migrate the existing LERMS database to the new servers
- Install the CAD client software on four (4) client workstations
- Provide System Administration training for Client technical staff

#### Client responsibilities:

- Provide information technology support staff on site and accessible via phone/email for knowledge transfer and to help address any concerns encountered during the system installation
- Install and configure the CAD client software on remaining CAD workstations

#### Prerequisite tasks:

Hardware installation

## **Deliverables:**

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- Post-Trip Report including System Configuration summary
- Test and production environments installed and ready to use

## D. Review LERMS and Field Reporting Configuration

Using the test environment set up in the previous task, Client will review the new features of LERMS and Field Reporting version 11.x, making configuration changes as appropriate. Client must document all configuration changes it makes in the test environment so that the changes can be later mirrored in the production environment.

#### Tyler responsibilities:

Be available to answer questions regarding the use of version 11.x

## Client responsibilities:

- Review version 11.x LERMS and Field Reporting functionality
- Make desired configuration changes in the test environment
- Document all configuration changes

## Prerequisite tasks:

Base system install

## Deliverables:

None

## **EF.** Test LERMS and Field Reporting Version 11.x

Tyler and Client will jointly test version 11.x LERMS and Field Reporting functionality to ensure that it conforms to the user documentation for the applications. The Client will provide access to Third Party components and systems necessary for the testing. Prior to conducting the test, the Client may, at its discretion, develop workflow scenarios to use to test the functionality. If it decides to develop workflow scenarios, the Client will provide the scenarios to Tyler for review at least ten days prior to the start of the Functional testing. The Client will be responsible for identifying the functionality in the user documentation that each scenario will test.

Tyler and Client will jointly identify whether functionality that does not work as intended is a software defect or a configuration issue. Client will resolve configuration issues and Tyler will fix P1 and P2 software defects prior to Go-Live of version 11.x LERMS and Field Reporting. Errors will be classified per Exhibit C to the Agreement. Testing will be considered complete once LERMS and Field Reporting version 11.x is configured and tested to Client satisfaction.

## Tyler responsibilities:

- Participate in on-site testing
- Review and classify errors as defects or configuration issues
- Remedy P1 and P2 errors prior to version 11.x LERMS and Field Reporting Go-Live

## Client responsibilities:

- Prepare any desired workflow scripts for testing
- Ensure appropriate SMEs are available for testing
- Participate in on-site testing
- Correct configuration issues

## Prerequisite tasks:

Review LERMS and Field Reporting Version 11.x

#### **Deliverables:**

- On-site testing services
- Remedies for P1 and P2 errors

#### G. Go-Live with Version 11.x LERMS and Field Reporting

Tyler will first migrate the version 10.x database to the version 11.x production servers and run scripts to bring the 10.x database compatible with 11.x. Client will then manually duplicate the configuration changes that it made in the 11.x test environment in the 11.x production environment. Final Acceptance of version 11.x will occur per the Licensing and Services Agreement.

## Tyler responsibilities:

Migrate version 10.x database to version 11.x production servers

## Client responsibilities:

- Make the configuration changes in the production environment
- Use version 11.x in the production environment
- Notify Tyler of Final Acceptance of version 11.x LERMS and Field Reporting

## Prerequisite tasks:

Test version 11.x LERMS and Field Reporting

## **Deliverables:**

Version 11.x operational in the production environment

## H. Conduct Geo-File Setup and Training

## Overview

Tyler will recommend procedures to support the loading of Client-supplied GIS data for use in the Tyler software and assist the Client with the initial load of GIS data. The Client is responsible for the content and accuracy of the supplied GIS data.

As part of this step, Tyler will provide a GIS overview of GIS components and where they are installed and discuss a plan for updating the GIS data within the Tyler software. Clients are responsible for continuous updates of the GIS data used in the Tyler software.

The Client will need to have the appropriate esri desktop software in order to conduct the initial GIS data load and ongoing maintenance of the data. The esri software must be available for use by the Tyler GIS team to assist the Client with GIS data support.

#### Tyler responsibilities:

- Receive from Client the Tyler-required GIS data per the GIS Implementation Packet
- Receive from Client all appropriate required polygon boundary layers; this may represent Police Beats, Police Originating Agency Identifier (ORI), Fire Quadrants, Fire Department Identification Number (FDID), Emergency Medical Services (EMS) Districts and EMS ORI, Common Name, Alias, and Hydrant layer
- Assist Client (via the GIS Implementation Specialist) in loading/importing their GIS data into the Tyler enterprise geo-database within the Tyler software; it is required that all GIS data to be used within the Tyler software be maintained in a standard esri data format (shape files,

personal geo-database, file geo-database) and then loaded into the Tyler software, or the required GIS data to be maintained directly in the Tyler enterprise geo-database using esri's desktop software

- Conduct a GIS Overview with the Client
- Review Client's GIS data and provide feedback on compatibility issues

## Client responsibilities:

- Develop initial GIS data and provide ongoing GIS data maintainenancemaintenance
- Identify and make available the Client GIS point-of-contact responsible for ongoing GIS maintenance
- Provide Tyler with the required GIS data containing address point layer (optional) and street centerline layer for the systems proposed
- Provide Tyler with all appropriate required polygon boundary layers
- Provide any other GIS data requested by Tyler for use within the Tyler software at the time of the initial import/load into the Tyler enterprise geo-database
- Provide all software licenses for esri desktop software and any associated systems software and workstation equipment necessary for the initial import/load of the GIS data into the Tyler enterprise geo-database
- Provide trained staff to make GIS data changes or corrections in support of GIS implementation

## Prerequisites:

- GIS Implementation Packet
- Client GIS data preparation complete
- <u>Eesri Desktop Software installed</u>

#### **Deliverables:**

- Client-supplied GIS data loaded in the Tyler standard software
- Demonstration by Tyler that the Tyler application is working as designed with the Client GIS data
- Overview delivered by Tyler to Client for necessary ongoing maintenance and uploading of the GIS data within the Tyler application going forward

#### Step 5: Standard Solution Build

## A. Conduct Build-Out Training Sessions

#### Overview

Tyler will conduct three (3) CAD Build-Out Training sessions and one (1) Mobile Messaging Build-Out Training session. During the Training Sessions, Tyler will provide designated Client SME personnel with the knowledge necessary to configure the software solution. Resources will be assigned responsibility to complete various configuration tasks and are expected to complete their assigned tasks according to the Project Schedule. During this task, Client and Tyler will develop the Training Plan.

## Tyler responsibilities:

- Provide training manuals and other training materials
- Conduct Build-Out Training sessions
- Facilitate Final System Review session

## Client responsibilities:

- Provide and schedule necessary facilities and equipment for training sessions
- Ensure appropriate resources attend Build-Out Training and Final System Review sessions
- Access and disseminate training materials
- Attend and participate fully and collaboratively in the Review and Build-Out sessions
- Complete assigned tasks according to the Project Schedule

## Prerequisite tasks:

Software installed and confirmed operational

## Deliverables:

- Updated Build Plan
- User and Train-the-Trainer Training Plans
- Applications built out in preparation for User Training and Go-live

#### **B. Implement Standard Interfaces**

Tyler will schedule the implementation of standard interfaces at appropriate times during the implementation. Some interfaces require configuration at the time of installation. Client will be responsible for providing information that Tyler needs to configure the interfaces.

## Tyler responsibilities:

- Schedule the implementation of interfaces
- Provide configuration requirements for interface operations
- Implement each interface
- Configure each interface per Client-provided information as appropriate
- Conduct basic testing of each interface at time of installation to ensure that connection works, file is set up in appropriate place and that data is exchanged
- Send interface installation sign-off to Client for each interface

#### Client responsibilities:

- Specify the desired application workflow
- Provide personnel who can assist with connections for remote installations

- Provide access to the physical systems for on-site installations
- Provide liaison to participating Client agency staff and third party vendors as required to support
  installation and test of interfaces to 3<sup>rd</sup> party systems
- Ensure that third-party software is installed as appropriate
- Prepare for interface installation in accordance with interface requirements sent by Tyler
- Participate in basic testing and verify results
- Provide sign-off for the interfaces that are operational

#### Prerequisite tasks:

- Hardware installed
- License standard software installed
- Third-party software installed as applicable

## Deliverables:

- Standard interfaces installed and configured
- Completion of basic testing of each interface at time of installation to ensure that connection works, file is set up in appropriate place and that data is exchanged

## **C. Implement Custom Interfaces**

## Overview

Upon completion of development per the Requirements Documents, Tyler will implement custom interfaces identified in Schedule 2 of the Agreement.

## **Tyler Responsibilities**

- Implement the interfaces in the production and test environment that are required for the live environment at go-live
- Schedule the implementation of interfaces
- Implement each interface
- Conduct basic testing of each interface at time of installation to ensure that connection works, file is set up in appropriate place and that data is exchanged
- Send interface installation sign-off to Client for each interface

## **Client Responsibilities**

- Provide personnel who can assist with connections for remote installations
- Provide access to the physical systems for on-site installations
- Provide liaison to participating Client agency staff and third party vendors as required to support
  installation and test of interfaces to 3<sup>rd</sup> party systems
- Ensure that third-party software is installed as appropriate
- Participate in basic testing and verify results
- Return interface installation sign-off to Tyler

## Prerequisite tasks:

- Hardware installed
- License standard software installed
- Third party software installed
- Custom development of interface is complete

#### **Deliverables:**

- Custom interfaces installed and configured
- Basic testing on interfaces completed

#### **Step 6: Validate Configuration**

## A. Validate Configuration and Workflows

## Overview

Tyler will work with the Client Project Manager and SME personnel to conduct Configuration and Workflow Testing scenarios of the CAD, Mobile Messaging, Field Reporting and LERMS configurations. Validation of configurations will include application software and interfaces.

## Tyler responsibilities:

- Provide Configuration and Workflow Test Scenarios
- Attend Configuration and Workflow Test session(s)
- Work with Client Project Manager to address any items agreed to not be working as designed

## Client responsibilities:

- Provide and schedule necessary facilities and equipment for testing session(s)
- Attend Configuration and Workflow session(s)
- Identify in writing any issues that are agreed to not be working as designed

## Prerequisite tasks:

- Completion of Build-Out Sessions
- Installation of standard interfaces
- Installation of custom interfaces

## Deliverables:

Written list of any items that are agreed to not be working as designed

## **B. Update Configuration Settings and Workflows**

## Overview

The Client will update any configuration settings or policy decisions that are identified during the Workflow and Configuration session as needed. The results of this effort are configured applications and clearly defined workflows.

## Tyler responsibilities:

- Provide support for the Client SME team that is applying configuration changes
- Assist Client staff change the configuration to achieve the desired application workflow

## Client responsibilities:

- Determine desired application workflows
- Apply configuration changes as needed

## Prerequisite tasks:

Workflow and Configuration Test Results

#### **Deliverables:**

Configured applications, including interfaces, ready for functional testing

## **C. Functional Testing**

#### Overview:

The purpose of the Pre-Go Live Functional Test is to validate and verify that the configured CAD and Mobile applications, along with contracted interfaces, comply with the Tyler User Documentation for the software version currently installed. Although the LERMS and Field Reporting will not be tested in this task, the integration and associated workflows between the CAD/Mobile Messaging and the LERMS/Field Reporting applications will be tested.

Tyler and Client will conduct the Functional Test jointly at the Client's site using a computer server and related workstation equipment. The Client will provide access to Third Party components and systems.

Prior to conducting the test, the Client may, at its discretion, develop workflow scenarios to use to test the functionality and workflows. If it decides to develop workflow scenarios, the Client will provide the scenarios to Tyler for review at least ten days prior to the start of the Functional testing. The Client will be responsible for identifying the functionality in the user documentation that each scenario will test.

Also prior to conducting the functional test, Tyler will create a spreadsheet based on the table of contents for the then-current user documentation and the agreed-upon specifications described in the approved Interface Control Document (ICD) or Requirements Document (RD). Client is responsible for reviewing the spreadsheet for accuracy and completeness.

Tyler and the Client will use the spreadsheet to jointly document and track the results of each tested item. The Client Project Manager will classify any found deviations (errors) as needing to be remedied before training begins, before Go-Live, before Final Acceptance, or after Final Acceptance. The Client and Tyler Project Managers will mutually agree on a time frame for errors that can be remedied after Final Acceptance.

Tyler's Project Manager will maintain a tracking document containing all reported errors, including the classification of each error and the status of the remedy. This document will contain only errors reported by the Client.

The Client shall repeat the test for any remedied error within ten (10) days of receipt of Tyler's remedy for an error, and shall advise Tyler, in writing, of the results within five (5) days of the test's completion.

## Tyler Responsibilities:

- Schedule Tyler resources to participate in testing
- Create tracking worksheet based on table of contents for user documentation, ICDs, and RDs
- Review Client-developed workflow scripts
- Assist with functional testing, including documenting test results
- Remedy errors according to the classification time frame (before training, before Go-Live, before Final Acceptance
- Work with client to develop remediation plan for correcting errors that can be remedied after Final Acceptance
- Track errors, classifications of the errors, and remedies
- Schedule follow-up testing upon implementing corrections

**Comment [CS3]:** From a drafting standpoint, this appears to be a slightly different concept from "Defects" as that term is defined, as this is deviations from an agreed upon spec list. I'm ok leaving this designation if that is the case, but I wonder if we don't need the same caveats as found in the Final Acceptance section about configuration and client-related errors.

## **Client Responsibilities:**

- Schedule Client resources to participate in testing
- Create workflow scripts
- Review tracking worksheet for completeness and accuracy
- Assist with functional testing, including documenting test results
- Work with Tyler to develop remediation plan
- Test remedied errors
- Participate in follow-up testing after Tyler implements corrections

#### Prerequisite tasks;

- Test scripts (created from Tyler User Documentation)
- Configuration review completed

#### **Deliverables:**

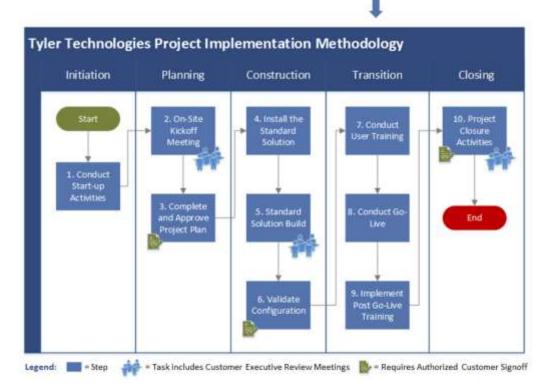
- Remedies for errors classified as needing to be remedied before training begins
- Plan to remedy errors that can be remedied after Go-Live

## **Phase: Transition**

Purpose: Train users, execute go-live and complete post go-live activities.

**Description of Phase:** The Transition Phase consists of three steps. During this phase, Tyler and Client project teams review the system, verify and validate readiness for go-live, train users, cut over from legacy systems and complete post go-live requirements. Optimization of the implementation occurs throughout the transition phase.

Comment [ML4]: Handling of other errors?



## Step 7: Conduct User Training

## Overview

Tyler's Application Specialist(s) will provide on-site training services to assigned Client staff using the method agreed to in the Planning Phase. These sessions will be provided via an End User and/or Train-the-Trainer (TTT) approach for applications.

## A. CAD End-User Training

This training consists of a Tyler Application Specialist providing very detailed on-site training to end users of the CAD application.

#### Tyler responsibilities:

- Provide training session agenda
- Provide training materials
- Conduct end-user training

## Client responsibilities:

- Assign, schedule, ensure attendance and participation of appropriate staff for training sessions
- Provide and schedule necessary facilities for training sessions
- Ensure training facilities are set up and configured with all requisite hardware/software

- Monitor training course attendance and ensure all users receive required training
- Identify in writing any issues regarding training delivery, participation and execution

## Prerequisite tasks:

Functional testing complete

## **Deliverables:**

- Delivery of all training courses
- Written list of issues regarding training (provided by Client)

## B. Mobile Train-the-Trainer Training (TTT)

This training consists of a Tyler Application Specialist providing very detailed on-site training to Client representatives. The Train-the-Trainer course is designed to take Client-certified (either locally or by their state) trainers, train them on the Tyler software and certify that they have the knowledge to successfully train other members. This training also includes problem-solving techniques to ensure an effortless transition with minimal interruptions during their training sessions. Additionally, students are provided with training techniques and detailed lesson plans on their specific modules.

## Client responsibilities:

- Assign, schedule and ensure attendance and participation of appropriate staff for training sessions
- Provide and schedule necessary facilities for training sessions
- Ensure that training facilities are set up and configured with all requisite hardware/software
- Select the Client trainers and receive the Train-the-Trainer training from Tyler
- Train the users for each application

# Monitor training course attendance and ensure all appropriate users receive trainingPrerequisite tasks:

Functional testing complete

## Deliverables:

Delivery of all training courses

## Step 8: Conduct Go-Live

#### A. Verify that Software is Ready for Live Operations

#### Overview

Tyler will provide written verification that the software is ready for live operations. It will then assist the Client with verifying the operational readiness of the production environment. Key areas Tyler and the Client will review are:

- Infrastructure and related operational environment (System Assurance team)
- GIS review
- Priority Warranty Items / Release Upgrades (Project Manager with assistance from the appropriate teams)

## Tyler responsibilities:

- Provide written verification that the software is ready for live operations.
- Assist the Client with verifying the operational readiness of the production environment

### Client responsibilities:

Verify the operational readiness of the production environment with Tyler Assistance

## Prerequisite tasks:

- Functional testing complete
- Errors classified as needing to be remedied before Go-Live are remedied
- End-user and Train-the-Trainer training complete

# Deliverables:

Confirmation of operational readiness of the production environment

# **B. Develop Cutover Plan**

## Overview

The Tyler Project Manager will work with the Client Project Manager to develop a detailed Cutover Plan for the CAD and Mobile Messaging Go-Live event.

## Tyler responsibilities:

Schedule meetings to work with the Client Project Manager to develop a Cutover Plan

## Client responsibilities:

Work with the Tyler Project Manager to develop a detailed Cutover Plan

### Prerequisite tasks:

Applications ready for Go-Live

# Deliverables:

Completed detailed Cutover Plan

# C. Conduct Cutover to Live Operations

With assistance from Tyler, Client will cutover to live operations. Tyler will provide five days of on-site support during the first two weeks of live operations. Client will monitor use of software and provide Tyler with daily lists of questions and issues requiring response or resolution.

### Tyler responsibilities:

- Provide onsite assistance for all applications going live
- Execute tasks identified in Cutover Plan
- Conduct Client turnover to Client Support
- Receives clearance for on-site staff to depart Client site

### Client responsibilities:

Execute tasks identified in Cutover Plan

- Provide SME staff to assist with go-live for each of the applications to serve as the first line of support during the go-live period
- Place the software into production and begin operational use in consultation with Tyler and in accordance with the Project Plan
- Provide a detailed list of questions and issues that require explanation or resolution by Tyler at the end of each day during the go-live period

## Prerequisite tasks:

- Verification that software is ready for Go-Live
- Development of a Cutover Plan

### **Deliverables:**

- Execution of Tyler tasks identified in Cutover Plan
- Two weeks of on-site support

## **D. Conduct Final Acceptance Testing**

### Overview:

The purpose of the Final Acceptance Test is to verify that the Integrated System performs as expected in the live production environment. The Acceptance Test will include Licensed Standard Software and contracted interfaces. The test will take place during the 90-day period (Test Period) commencing no later than one week after Go-Live of the Licensed Standard Software and contracted interfaces.

Client will set up a mechanism for users to report errors. Client and Tyler will work together to determine if reported errors are user errors (e.g., remedied by additional training), configuration errors or software errors. Client will be responsible for remedying user errors. Client and Tyler will work together to remedy configuration errors. Tyler will be responsible for remedying software errors. Defects.

Tyler's Project Manager will maintain a tracking document containing all reported errors, including the classification of each error and the status of the remedy. This document will contain only errors reported by the Client.

Any <u>Priority 1 or 2</u> Defect, <u>error, fault, performance degradation, operation or malfunction (error)as</u> <u>defined in the Support Call Process</u> that renders a major application (CAD, LERMS, Mobile Messaging, or Field Reporting) or supported interface to be inoperative, or causes the Licensed Standard Software or a major component of the Licensed Standard Software to fail catastrophically will stop the Acceptance Test immediately. Upon remedying the <u>errorDefect</u>, the Acceptance Test and the Test Period will start over.

Any Defect, error, fault, performance degradation, operation or malfunction (error) that severely affects a major application (CAD, LERMS, Mobile Messaging) or supported interface, but does not cause it to be inoperative, and for which there is not an acceptable workaround, will stop the Acceptance Test immediately. Upon remedying the errorDefect, the Acceptance Test will restart from day 1 if the error Defect occurred during the first forty-five (45) days of the Test Period. If the errorDefect occurred during the last forty-five (45) days of the Test Period, the Client and Tyler Project Managers will consult and mutually agree for the test to continue for the remaining portion of the Test Period or start over from day one and continue for another full ninety (90) days.

If a specific component or functionality of the software does not work as expected based on the thencurrent user documentation, Defect resultings in an incomplete, unintended or erroneous operation, but **Comment [CS5]:** It appears to me that we call out "errors" as things that are outside of Tyler's control. Tyler should be responsible for curing Defects (ie., failures to meet Tyler's warranty) productive use of the software is not significantly impacted and a work-around is available <u>("Other</u> <u>Defects"</u>), then Tyler and Client Project Managers will mutually determine whether the <u>error-Other</u> <u>Defect</u> needs to be fixed before Final Acceptance or if it can be fixed in a release subsequent to Final Acceptance. <u>If the parties' Project Managers cannot agree to a classification, the parties will escalate the</u> <u>issue to their respective Project Sponsors for a final determination.</u>

If the Software experiences an error due to a deficiency in a server, network, or other Client provided component, the Test Period will not be restarted but will continue until the Test Period is completed. A deficiency in Client's computing environment is defined as any one or more of the following:

- a network outage,
- database maintenance,
- backups,
- system administration,
- server failure of any kind,
- operator error,
- planned downtime,
- failure or errors caused by third party products of any kind, or
- any other circumstance not attributable to the Licensed Software.

Final Acceptance will be deemed to have occurred after the completion of the 90-day Acceptance Test Period and when all <u>errors classifiedPriority 1 and 2 Defects</u> as well as Other Defects classified as needing to be remedied before Final Acceptance have been remedied.

### Tyler responsibilities:

- Provide Application Specialists to assist with triaging and documenting errors
- Document and track errors, classifications, and remedies
- Work with Client Project Manager to develop a mutually agreeable plan to remedy errors
- Work with Client to remedy configuration errors
- Remedy software errors per the error level and the mutually agreed upon plan for remedying errors

### Client responsibilities:

- Operate the Tyler applications in the production environment
- Monitor system functionality
- Notify Tyler immediately of any encountered issues
- Work with Tyler Project Manager to develop a mutually agreeable plan to remedy errors
- Work with Tyler to remedy configuration errors
- Remedy user errors
- Notify Tyler in writing of the successful conclusion of the Acceptance Test

# Prerequisite tasks:

Cutover to live operations

# **Deliverables:**

 Remediation of software errorsPriority 1 and 2 Defects per error classification and mutually agreed upon plan for remedying errorsOther Defects **Comment [CS6]:** I've introduced this definition to clarify the classifications that appear to now apply to this testing process.

 If applicable, a mutually agreeable plan, including a timeline, to remedy outstanding errors<u>Other</u> <u>Defects</u>

### Step 9: Conduct Post Go-Live Training

### A. Conduct Post Go-Live Training

The Tyler Project Manager and Client Project Manager will work together to evaluate areas that require additional training. A plan will be developed to deliver the training.

## B. Provide Decision Support Software (DSS) Training

## Overview

Tyler's Application Specialist(s) will provide two sessions of on-site training services to assigned Client staff om the Law Enforcement Decision Support Software.

## **C. LERMS DSS Training**

This training consists of a Tyler Application Specialist providing a two-day on-site training session to end users of the LERMS DSS application. The training will occur two to three months after the LERMS version 11.x application is put into production.

# Tyler responsibilities:

- Provide training session agenda
- Provide training materials
- Conduct user training

# Client responsibilities:

- Assign, schedule, ensure attendance and participation of appropriate staff for training sessions
- Provide and schedule necessary facilities for training sessions
- Ensure training facilities are set up and configured with all requisite hardware/software
- Monitor training course attendance and ensure all users receive required training
- Identify in writing any issues regarding training delivery, participation and execution

# Prerequisite tasks:

LERMS version 11.x Go-Live

### Deliverables:

- Delivery of LERMS DSS training courses
- Written list of issues regarding training (provided by Client)

# D. CAD DSS Training

This training consists of a Tyler Application Specialist providing detailed one to two day on-site training session to end users of the CAD DSS application. The training will occur 2-3 months after the CAD version 11.x application is put into production.

# Tyler responsibilities:

- Provide training session agenda
- Provide training materials

Conduct user training

# Client responsibilities:

- Assign, schedule, ensure attendance and participation of appropriate staff for training sessions
- Provide and schedule necessary facilities for training sessions
- Ensure training facilities are set up and configured with all requisite hardware/software
- Monitor training course attendance and ensure all users receive required training
- Identify in writing any issues regarding training delivery, participation and execution

### Prerequisite tasks:

CAD version 11.x Go-Live

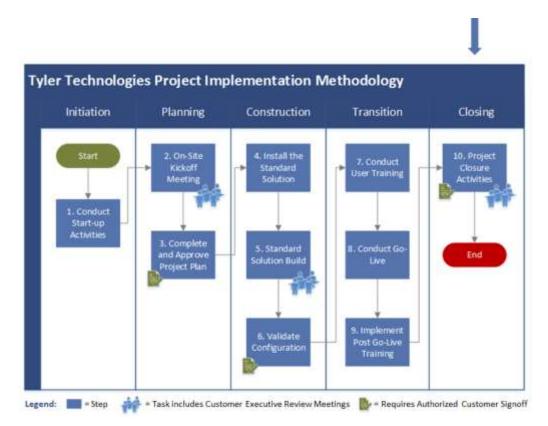
Deliverables:

- Delivery of CAD DSS training courses
- Written list of issues regarding training (provided by Client)

# **Phase: Closing**

**Purpose:** Review the project, approve closure, disengage project management and transition Client to the Account Management Team.

**Description of Phase:** The Closing Phase consists of one step. During this phase, the Tyler Project Manager reviews the project with Executive Management, closes out all remaining documentation tasks and disengages from the project. The Account Management Team assumes all responsibilities for ongoing support of the system and the Client.



# Step 10: Project Closure Activities

### A. Transition to Account Management

### Overview

At the conclusion of the project, the Tyler applications are fully live and functional in the Client's environment with all required components delivered and operational. During this event, the Tyler Project Manager will schedule a formal turnover of the Client to the Tyler Account Management Team, which includes the Client Care Manager and Client Support Account Manager. The Client Care Manager introduces their department structure and reviews the services that each team provides.

Project closure will also be finalized with the Client, ensuring the Client and Tyler Support staff are aware of the overall deployment of the Tyler implementation, all questions have been addressed and exceptions are incorporated into the sign-off document.

# Tyler responsibilities:

- The Tyler Project Manager will coordinate a meeting, either via teleconference or on site, to review the project status and transition ongoing communications with the Client to the assigned Account Team
- Prepare the sign-off documentation

• The Project Manager will review all project financials to ensure all deliverables for the Agreement are delivered, invoiced and paid

# Client responsibilities:

- Provide appropriate personnel for the turnover meeting
- Provide a location for the turnover meeting
- Project Closure sign-off
- Complete payment for all amounts described in the Agreement

# Prerequisite tasks:

- Agenda
- Scheduled meeting
- Open item list and corresponding release delivery plan
- Project Closure sign-off template

# Deliverables:

- Verification that Account Management is engaged to support the Client
- Project Closure sign-off



### Exhibit E

# Schedule 1 – Professional Services

## 1. Project Management Services

We shall act as Project Manager to assist you in implementing the Tyler Software. Project Management Services include:

- a) Developing an Implementation Plan;
- b) Providing revised Implementation Plans (if required);
- c) Providing monthly project status reports; and
- d) Facilitating project status meetings, including:
  - a project review (kickoff) meeting at your location
  - progress status meeting(s) during implementation via telephone conference or at your location; and
  - a project close-out meeting at your location to conclude the project.
- e) Consultation with other vendors or third parties, if necessary.

# 2. Implementation and Training Support Services

Implementation and training support services have been allocated for this project as described in the Investment Summary. Avoiding or minimizing custom or modified features will aid in keeping the support costs to the amount allocated. The recommended implementation and training support services include:

- a) Implementation of the Tyler Software;
- b) Training you or assisting with your training on the Tyler Software; and
- c) Tailoring of Tyler Software by our technical staff and/or consultation with our technical staff.

The project management, implementation and training support services provided by us may be performed at your premises and/or at our headquarters in Troy, Michigan (e.g., portions of project management are performed in Troy).

### 3. Interface and/or Fixed Installation Services

We shall provide interface installation services as described in the Investment Summary.

Our GIS implementation services are to assist you in preparing the required GIS data for use with the Tyler Software. At a minimum, you will be required to provide an accurate street centerline layer and the appropriate polygon layers needed for Unit Recommendations and Run Cards in an industry standard ESRI file format (Personal Geodatabase, File Geodatabase, Shape Files). You are responsible for having clearly defined boundaries for Police Beats, EMS Districts and Fire Quadrants. If necessary, we will assist you in creating the necessary polygon layers (Police Beats, EMS Districts and Fire Quadrants) for Unit Recommendations and Run Cards. We are not responsible for the accuracy of or any ongoing

maintenance of the GIS data used within the Tyler Software.

4. Third Party Scope

- a) Supports one (1) Application Server
- b) 400 Mobile Clients
- 5.4. Service Fees and Travel Costs for Upgrade of RMS from Version 10.x to Version 11.x

Support services for ESRI 10.2 Upgrade Services include:

- a) ESRI Component Upgrade to 10.2
- b) Implementation Plan
  - Build new GIS Database
  - Install GIS Server
  - Install ESRI Data on Customer's Test Aegis 11 Environment
  - GIS Overview
- c) Up to three days of remote Aegis 11 upgrade assistance
  - Upgrade Test Environment to Aegis 11 including MSP, CAD Enterprise and Mobile
  - Upgrade Production Environment to Aegis 11 including MSP, CAD Enterprise and Mobile
- d) Test and Production environments (requires downtime)

The upgrade support services are typically performed remotely from our offices located in Troy, Michigan but may be provided at Client's premises with Client responsible for the travel expenses as set forth in the Amendment. Additional support services provided by us outside the scope of this Amendment will be provided at our daily rate in effect at that time.

### 6.5. Hardware Quality Assurance Service

We shall provide Hardware Systems Assurance of your .NET server(s).

- a) Hardware Quality Assurance Services (High Availability Environment):
- b) Hardware Systems Assurance and Software Installation:
  - Assist with High Level System Design/Layout
  - Validate Hardware Configuration and System Specifications
  - Validate Network Requirements, including Windows Domain
  - Physical Installation of our Application Servers
  - Install Operating System and Apply Updates
  - Install SQL Server and Apply Updates
  - Install New World Applications Software and Apply Updates
  - Establish Base SQL Database Structure
  - Configure System for Electronic Customer Support (i.e. NetMeeting)
  - Tune System Performance Including Operating System and SQL Resources
  - Test High Availability/Disaster Recovery Scenarios (if applicable)
  - Provide Basic System Administrator Training and Knowledge Transfer
  - Document Installation Process and System Configuration

7-6. Message Switch Operating System Assurance Service

We shall provide Message Switch Operating System Assurance, which includes:

**Comment [ML7]:** Note to Tyler: Can you explain to what item this refers?

**Comment [CS8]:** Nancy: please confirm with Scott what this is.

Comment [CS9]: Deleted per Craig N. and Scott Bitoff

- a) Message Switch Operating System Assurance Services:
- b) Operating System Assurance and Software Installation Services:
  - Unpack and assemble hardware
  - Verify core hardware functionality (network/video/storage devices/usb)
  - Install and update AIX Operating System
  - Install and update applicable system manual pages
  - Set AIX environment variables
  - Build system user-ids and applicable authorizations
  - Install and stage message handler and compilers
  - Verify and allocate disk space
  - Mirror hard drives and boot sequencing
  - Install customer-specific communication processes
  - Compile New World Message Switch programs
  - Install base Message Switch data tables
  - Install automated process restart script
  - Install full system backup processes
  - Install system support scripts
  - Install state specific programs and scripts
  - Install state specific data tables
  - Assure Message Switch operation
  - Disassemble, package, and ship to customer

# 8.7. Decision Support Systems (DSS) Implementation Services

We will provide you with implementation of licensed DSS software modules. The implementation will include installation, training, and configuration of DSS modules. The recommended implementation and training shall include:

- a) One or more consultative session(s) (onsite) with executive command staff to discuss data needs and information requirements for decision making. You are responsible for ensuring that appropriate command level personnel/decision makers are available for this session.
- b) Solution design and review sessions to document and collaboratively analyze tools and dashboards to assist with data needs and decision making as discussed during the consultative session(s). Your sign off will be required on agreed upon requirements of reporting cubes and dashboards.
- c) Installation and configuration of DSS software.
- d) On-site training session(s) to provide an overview of using each DSS licensed module including basic reporting and dashboard creation and other standard features.
- e) Installation of your specific reporting cube(s) and dashboard(s) as agreed upon during solution design and review. Enhanced package includes up to 12 reporting cube(s) or dashboard(s).



#### Exhibit E

### Schedule 2 – Data File Conversion Assistance

We will provide conversion assistance to you to help convert <u>data from the Hitech business file into the</u> <u>Tyler database</u>. Currently, 19,891 records exist in the Hitech database and the Client expects to reduce the number to around 15,000 after cleaning the database. The following fields from the Hitech business file will be mapped and converted into the Tyler database:

- Address we can export this as one field geo-validated field or as separate components.
- Business Name
- Business Phone
- Business Owner
- Owner Phone
- Responsible party (RP)
- RP Phone
- RP relationship to business
- Gate codes
- Security access
- Fire Dept Connection (FDC)
- Fire Alarm Panel
- Knox box
- Standpipes
- Sprinklers
- Hydrants (This is also a layer in GIS)
- Electrical shutoff
- Gas Shutoff
- Hazmat
- AED

contains the following fields the existing data files specified below. If additional files fields are identified after contract execution, estimates will be provided to you prior to us beginning work on those newly identified files fields. Any additional work will require a change order or amendment as prescribed in the Agreement, Section C(3) ("Additional Services").

General

- A data conversion analysis and assessment to verify the scope of effort for the project will be conducted. A revised cost estimate for the data conversion may be provided at the conclusion of the assessment. <u>The cost for the data conversion will not change if no additional fields are to be converted</u>. You may elect to cancel or proceed with the conversion effort based on the revised estimate.
- 2. This conversion effort includes data coming from <u>the business file of Client's Hitech database</u>. one unique database or source, not multiple sources.
- 3. No data cleansing, consolidation of records, or editing of data will be part of the data conversion

**Comment [ML10]:** Need to say something about needing a change order

effort. Any data cleansing, removal of duplicate records, or editing must take place by you prior to providing the data to us.

# Our Responsibilities

- 1. We will create and provide you with a conversion design document for signoff prior to beginning development work on the data conversion. No conversion programming by us will commence until you approve this document.
- We will provide the data conversion programs to convert your the specified data from the Hitech databaseja single data source to the Tyler Software for the specified files that contain 500 or more records.
- 3. As provided in the approved project plan for conversions, we will schedule on-site trips to your location in order to conduct the following:
  - Conversion Analysis,
  - Assistance for Mapping and Testing, and
  - Conversion Go-Live Implementation and Support

You will be responsible for travel expenses as set forth in the Invoicing and Payment Policy.

- 4. We will provide you up to three (3) test iterations of converted data. One test iteration consists of:
  - Running a conversion test in your test environment,
  - Your reviewing a conversion test and responding in writing to us (see Client responsibilities paragraph 3 below),
  - We correct or otherwise respond to issues discovered and reported by you,
  - We will conduct internal testing to verify corrections, and
  - Both parties planning for the next test iteration and/or the live implementation.

### **Client Responsibilities**

- 1. You will extract data from the legacy system to submit to us. Data will be submitted to us in one or more of the following formats:
  - AS/400 files (SAV files),
  - Microsoft SQL Server database,
  - Microsoft Access database,
  - Microsoft Excel spreadsheet,
  - Visual Fox Pro database or similar format (.dbf files),
  - An ASCII-format delimited text file (including embedded column headings and text delimiters), or
  - An ASCII-format fixed-width file (along with structured column definitions in an electronic format suitable for parsing, such as a spreadsheet or document table).

Data may be delivered using any common media or data-delivery format such as ¼-inch tape (AS400), Ultrium 1 Tape (AS/400), CD, DVD, USB device, hard drive, or FTP server.

In the event that you request data extraction assistance from us, data extraction services shall be billed at our then-current rates, according to the Agreement.

- 2. You will respond to each test iteration in writing, on a form provided by us, either:
  - Indicating acceptance that the Data Conversion Process is ready for the final conversion, or

 Indicating a list of changes that need to be applied to the Data Conversion Process for the next test iteration.

Up to three (3) test iterations are provided as part of the Data Conversion Process. After the third (3<sup>rd</sup>) test iteration, you shall pay our then-current flat fee for each additional test iteration. You will promptly review each test iteration when delivered by us. Prompt review by you will reduce the likelihood that a need for additional test iteration(s) may arise due to an extended delay between delivery of a test iteration and its review.

- 3. A data dictionary (data descriptors) containing all data elements must be provided to us for each file submitted with the media.
- 4. As provided in the project plan for conversions, you will provide a dedicated resource in each application area to focus on conversion mapping and testing. This includes dedicating a support person(s) whenever our staff is on site regarding conversions. Roughly a one to one ratio exists for your commitment and our commitment. You understand that thorough and timely testing of the converted data by your personnel is a key part of a successful data conversion.
- 5. You agree to promptly review and signoff on both the conversion design document, and on the final conversions after appropriate review.

Only one data source for each of the files described in the Investment Summary.

**Comment [ML11]:** Rick – do you have this information? Instead of a data dictionary, do you want to say something like field descriptions?

**Comment [ML12]:** Note to Tyler: something seems to be missing from this sentence.



Exhibit E

# Schedule 3 - Customer Requested Standard Software Enhancements and/or Custom Software

1. Definition

We will provide you requested standard software enhancements and/or custom software services as discussed below. You agree to cooperate in limiting the scope of those modifications and enhancements, as described below.

An analysis and assessment to verify the scope of effort for these services will be conducted. A revised estimate for the enhancements/customizations may be provided at the conclusion of the assessment. You may elect to cancel or proceed with the enhancements/customizations based on the revised estimate.

Capabilities included in the initial scope:

- (a) Enhancements to Tyler Software
  - The application will be on iOS at this time (leveraging existing code base from Logos CD App — visuals / offline mode / online incremental updates / GIS / etc.)
  - The application will contain the following high level functionality
    - ⊖ View Active Calls
      - <del>∞ Update Narratives</del>
    - View Active Unit Status
    - <del>⊯ Update Status</del>
    - ← View Active Incidents (Dispatch Form)
      - 😹 Location Info
    - <del>∞</del>—Alerts
    - Mapping

    - → RMS Inquiry (People, Vehicles)
  - The application will allow updates from the Application to CAD & Mobile

  - <u>The applicationenhancement would will be completed before Project Kickoff (Step 2,</u> Task A of the Statement of Work) in the projected project timeline

We will be reviewing the following application features for feasibility and inclusion. These features will be vetted on the ability to take traffic from a <sup>t</sup> third party application outside the secure network.

Messaging / Chat

- AVL

Assumptions:

The application would allow updates from the Application to CAD & Mobile

- The application would <u>will</u> require a cellular connection as updates would be in real timeWe will ensure the application itself adheres to CJIS requirement
- The client will be required to provide their <u>its</u> own MDM solution to remain in CJIS compliance

<u>Note that Wwe will look at the Android platform during this project but will focus on iOS</u> first. The application would be complete in the projected project timeline

(b) Custom Software

While we will provide reasonable consultation, you are responsible for obtaining technical contacts and/or technical specifications from the third parties involved.

- (1) Sansio ePCR interface (one-way):
  - Export call for service data from New World Public Safety CAD Enterprise to Sansio ePCR.
- (2) ImageTrend Incident Reporting System Interface (one-way):
  - Export call for service data from New World Public Safety CAD Enterprise to ImageTrend Incident Reporting.
- (3) Interra CFS (one-way)
  - Tyler Technologies will provide an interface that will export call for service data from New World Public Safety to Interra.
- (4) CAD to CAD State BUS Interface (two-way):
  - Tyler Technologies will provide an interface that allows requests for assistance to be transferred between New World CAD and the Oregon State CAD bus.
- (5) Hitech SafetyNet Interface (two-way)
  - Tyler Technologies will provide and an interface that will allow dispatch messages and unit status to be exchanged between Hi-tech CAD and NWPS mobile messaging

### 2. <u>Methodology to Provide Enhancements and/or Custom Software</u>

### a) Our Responsibility

As part of our delivery of these services, we will:

- (1) Review the required features for the items set forth in paragraph 1, above, with you.
- (2) Prepare a Requirements Document (RD) to include:
  - Detailed description of the required feature
  - menu samples
  - screen samples
  - report samples
- (3) Conduct the programming and programming test.
- (4) Provide the associated in-scope training, testing and/or other support services.

For an enhancement or custom software requiring over seven (7) days of services, we will utilize the

**Comment [ML13]:** Note to Tyler: See comment regarding pricing under the Investment Summary.

design document procedure described below. For enhancements or custom software that require less than seven (7) days of services, we will use a Request for Service (RFS) procedure. Both procedures are reviewed with you at a pre-installation planning meeting. The RFS procedure utilizes a form with a narrative description and supporting documentation if applicable to define the work to be done.

# b) Design and Development Procedure

	Activity	<u>Targeted Time</u> <u>Period</u>
(1)	We will work with your staff in completing the RD. You agree to be reasonable and flexible in not attempting to design the modifications to be more extensive than called for in the scope (cost and schedule) of this project.	To be determined
(2)	We submit completed RD to you.	To be determined
(3)	You will review and sign off on the RD. Once you sign off on the RD, any subsequent changes must be documented along with the impact on pricing and schedule, if any. No programming will be done by us until the formal sign-off and your authorization to proceed in writing.	To be determined
(4)	We complete programming from RD and provide the associated deliverable to you.	To be determined
(5)	You test software modification based on RD.	To be determined

# 3. Third Party Responsibilities

- a) The third-party will provide a documented API that will allow access to required data via a file transfer, web service, or TCP/IP.
- b) We will not be responsible for making any modification in the 3rd party software to support this interface.
- c) The third-party developer will work with us and you to test the interface.

The custom interfaces we agree to deliver to you under this Agreement are set forth in the Investment Summary and described in the following Interface Control Documents.

# Interface Control Document for Deschutes County 911, Oregon

# State CAD-to-CAD Interface

Direction	CAD to CAD
Third Party	State Bus
Aegis Record Type	Call for Service
Detailed Description	Tyler Technologies will provide an interface that allows requests for assistance to be transferred between New World CAD and the Oregon State CAD bus.
	The transferred call and the originating call will share updates through the call narrative as long as both calls are opened. Unit status and location will not be exchanged.
	Dispatchers will be allowed to accept or reject inbound requests using the standard assistance request functionality in CAD Enterprise
	From New World CAD, calls can be transferred using two methods 1. Manually using a button on the CAD call window 2. Automatically based on the call type.
	The following features will not be supported
	Chat/IM between NWPS users and non-NWPS users
	<ul> <li>Viewing of open calls on external systems (unless an assistance request has been accepted by a user on NWPS CAD)</li> </ul>
	The functionality that will be supported will depend on the Oregon Status CAD bus API.
Assumptions	1. The third-party will provide a documented API that will allow access to required data via a file transfer, web service, or TCP/IP.
	2. New World System will not be responsible for making any modification in the 3rd party software to support this interface.
	3. The third-party will work with New World Systems and the customer to test the interface.

# ImageTrend Call Export

Direction	Export
Third Party	ImageTrend Incident Reporting
Aegis Record Type	Call for Service

Detailed Description	Tyler Technologies will provide an interface that will export call for service data from New World Public Safety CAD Enterprise to ImageTrend Fire Incident Reporting.
	The export of data will be a batch process that will occur at a frequency, in minutes, configurable by the customer. The interface will support one transfer method and format. Data may be transmitted as a file, through a web service, as a TCP message or other agreed upon protocol.
	The interface can be developed to send call data when a status changes and/or when the call closes. Message sent when the call changes will include all data, not only changed data.
	The interface will be limited to fields that exist in the New World CAD Enterprise. No new fields will be added to the database or user screen.
Assumptions	<ol> <li>The third-party will provide a documented API that will allow access to required data via a file transfer, web service, or TCP/IP.</li> </ol>
	<ol><li>New World System will not be responsible for making any modification in the 3rd party software to support this interface.</li></ol>
	3. The third-party will work with New World Systems and the customer to test the interface.

# Interra CAD Export

Direction	Export
Direction	
Third Party	Interra
Aegis Record Type	Call for Service
Detailed Description	Tyler Technologies will provide an interface that will export call for service data from New World Public Safety to Interra.
	The export of data will be a batch process that will occur at a frequency, in minutes, configurable by the customer. The interface will support one transfer method and format. Data may be transmitted as a file, through a web service, as a TCP message or other agreed upon protocol.
	The interface can be developed to send call data when a status changes and/or when the call closes. Message sent when the call changes will include all data, not only changed data.
	The interface will be limited to fields that exist in the New World CAD Enterprise. No new fields will be added to the database or user screen.
Assumptions	<ol> <li>The third-party will provide a documented API that will allow access to required data via a file transfer, web service, or TCP/IP.</li> </ol>

<ol><li>New World System will not be responsible for making any modification in the 3rd party software to support this interface.</li></ol>
3. The third-party will work with New World Systems and the customer to test the interface.

# Sansio ePCR CAD Export

Direction	Export
Third Party	Sansio ePCR
Aegis Record Type	Call for Service
Detailed Description	Tyler Technologies will provide an interface that will export call for service data from New World Public Safety CAD Enterprise to Sansio ePCR. The export of data will be a batch process that will occur at a frequency configurable by the customer. The interface will support one transfer method and format. Data may be transmitted as a file, through a web service, as a TCP message or other agreed upon protocol. The interface can be developed to send call data when a status changes and/or when the call closes. Message sent when the call changes will include all data, not only changed data.
	The interface will be limited to fields that exist in the New World CAD Enterprise. No new fields will be added to the database or user screen.
Assumptions	<ol> <li>The third-party will provide a documented API that will allow access to required data via a file transfer, web service, or TCP/IP.</li> <li>New World System will not be responsible for making any</li> </ol>
	<ul><li>modification in the 3rd party software to support this interface.</li><li>3. The third-party will work with New World Systems and the customer to test the interface.</li></ul>

# Hitech Mobile Interface

Direction	Import & Export
Third Party	Hi-Tech CAD
Aegis Record Type	Call for Service; Unit Status and Location
Detailed Description	Tyler Technologies will provide and an interface that will allow dispatch messages and unit status to be exchanged between Hi-tech CAD and NWPS mobile messaging. The following messages are supported by the NWPS API:
	New World Mobile to CAD
	<ul> <li>Add Narrative Request</li> </ul>

	<ul> <li>Add Person to Call Request</li> </ul>
	<ul> <li>Add Vehicle to Call Request</li> </ul>
	<ul> <li>Get All Units Request</li> </ul>
	<ul> <li>AVL Update Request</li> </ul>
	<ul> <li>Cleared Call Inquiry Request</li> </ul>
	<ul> <li>Create New Call Request</li> </ul>
	<ul> <li>Get All Calls Request</li> </ul>
	<ul> <li>Get Call by CFS Number Request</li> </ul>
	<ul> <li>Get Call by External Reference ID Request</li> </ul>
	<ul> <li>Get Call by Incident Request</li> </ul>
	<ul> <li>Get Call by Unit Number Request</li> </ul>
	<ul> <li>Unit Check In Request</li> </ul>
	<ul> <li>Unit Clear From Call Request</li> </ul>
	<ul> <li>Unit Emergency Message Request</li> </ul>
	<ul> <li>Unit Secondary Location Update Request</li> </ul>
	<ul> <li>Unit Self Dispatch Request</li> </ul>
	<ul> <li>Unit Status Update Request</li> </ul>
	<ul> <li>Unit Register Request</li> </ul>
	<ul> <li>Unit Unregister Request</li> </ul>
	CAD to New World Mobile
	• Call Publication
	<ul> <li>Dispatch Clear Publication</li> </ul>
	<ul> <li>Dispatch Publication</li> </ul>
	• Unit Publication
	<ul> <li>Get All Calls Response</li> </ul>
	<ul> <li>Get All Units Response</li> </ul>
	<ul> <li>Call Information Response</li> </ul>
	<ul> <li>Cleared Call Inquiry Response</li> </ul>
	<ul> <li>Unit Register Response</li> </ul>
	The functionality provided will depend on the capabilities of the Hi-Tech API
Assumptions	1. The third-party will provide a documented API that will allow access
	to required data via a file transfer, web service, or TCP/IP.
	to required data via a me transier, web service, or TCP/IP.
	2. New World System will not be responsible for making any
	modification in the 3rd party software to support this interface.
	3. The third-party will work with New World Systems and the
	customer to test the interface.



Exhibit E

Schedule 4 – Hardware Specifications

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# DESCHUTES COUNTY 911 SERVICE DISTRICT, OR Public Safety Hardware Specifications - Servers Version 11.x 5/31/2016

#### **RECOMMENDED SYSTEM HARDWARE**

# SERVERS

# Host Servers

- (2) Dell PowerEdge R630 (1U) Rack Server (Or Similar)
  - (2) Intel Xeon E5-2650 2.3GHz, 2133MHz, 10C Processors - 128GB 2133MHz RDIMMs (Memory)
  - Internal Dual SD Module with 8GB SD Card
  - Embedded SATA Controller
  - (1) Intel X710 Quad Port 10GB NIC (Integrated)
  - (1) Intel X710 Dual Port 10GB NIC (PCIe)
  - Redundant 750W Hot Swappable Power Supplies
  - DVD/ROM, SATA, Internal
  - 3 Year ProSupport and Mission Critical 24X7X4 Hour Onsite

#### Storage Array (SAN)

(1) Dell EqualLogic PS4210XV 2U 10GB iSCSI SAN (Or Similar)

- (12) 600GB 15K-RPM 2.5" SAS Hot Swap Disk Drives (7.2TB RAW)
- Dual Controllers with 16GB Battery Backed Cache Memory
- Supports RAID 5, RAID 6, RAID 10, RAID 50
- (2) 10GB Ethernet Network Interfaces Per Controller (4 Total)
- Redundant Hot Swappable Controllers, Power Supplies, Cooling Fans
- Includes EqualLogic Array, Host, and Management Software
- 3 Year ProSupport and Mission Critical 24X7X4 Hour Onsite

#### SYSTEM SOFTWARE

#### Host Servers

- (6) Windows Server 2012 (R2) Standard Edition, 2 Processors (12 VMs Total)
- (100) Microsoft Windows Server 2012 User/Device CALs (Estimated)
- (4) SQL Server 2014 Standard Core Edition (8 vCPUs Total)
- (1) VMware Essentials Plus 6 Includes vSphere & vCenter for 3 Hosts, 1 Yr. SNS
- (2) Microsoft Word 2013 (Production and Test)
- (2) Microsoft Excel 2013 (Production and Test)

# RECOMMENDED VIRTUAL MACHINE SPECIFICATIONS

# SPECIFICATIONS

#### **CAD Enterprise Server**

- 4 vCPUs
- 12GB Memory
- 100GB Virtual Disk (OS)
- Windows Server 2012 (R2) Standard Edition

# **Application Server**

- 4 vCPUs
- 4GB Memory
- 100GB Virtual Disk (OS)
- 500GB Virtual Disk (Estimate File Storage)
- Windows Server 2012 (R2) Standard Edition

#### **Database Server**

- 4 vCPUs
- 16GB Memory
- 100GB Virtual Disk (OS)
- 250GB Virtual Disk (SQL)
- Windows Server 2012 (R2) Standard Edition
- SQL Server 2012 Standard Edition

#### **Decision Support Server**

- 4 vCPUs
- 16GB Memory
- 100GB Virtual Disk (OS)
- 100GB Virtual Disk (SQL)
- Windows Server 2012 (R2) Standard Edition
- SQL Server 2012 Standard Edition

# **GIS Server**

- 2 vCPUs
- 8GB Memory
- 100GB Virtual Disk (OS)
- Windows Server 2012 (R2) Standard Edition

#### **Enterprise Security Server**

- 2 vCPUs
- 4GB Memory
- 100GB Virtual Disk (OS)
- Windows Server 2012 (R2) Standard Edition

#### Mobile Server

- 2 vCPUs
- 4GB Memory
- 100GB Virtual Disk (OS)
- Windows Server 2012 (R2) Standard Edition

# CAD Enterprise Test/Training Server

- 2 vCPUs
- 8GB Memory
- 100GB Virtual Disk (OS)
- Windows Server 2012 (R2) Standard Edition

#### **Application Test/Training Server**

- 2 vCPUs
- 4GB Memory
- 100GB Virtual Disk (OS)
- 500GB Virtual Disk (File Storage)
- Windows Server 2012 (R2) Standard Edition

# Mobile Test/Training Server

- 2 vCPUs
- 4GB Memory
- 100GB Virtual Disk (OS)
- Windows Server 2012 (R2) Standard Edition

#### VMware vCenter Management Server

- 4 vCPUs
- 8GB Memory
- 100GB Virtual Disk (OS)
- Windows Server 2012 (R2) Standard Edition



# DESCHUTES COUNTY 911 SERVICE DISTRICT, OR Public Safety Hardware Specifications - Message Switch Version 11.x 5/31/2016

# MESSAGE SWITCH SYSTEM HARDWARE

- IBM POWER 8 Model S814 8286-41A 4U Form Factor
- PCIe2 LP 4-Port 1GbE Adapter
- (2) 146GB 15K-RPM SFF SAS Disk Drives
- Primary OS AIX
- 16GB System Memory
- Power GXT145 Graphics Adapter
- (2) 900W AC Power Supplies (Primary & Redundant)
- SATA Slimline DVD-RAM (System Backup)
- (2) 6' Power Cords, 125V, 15A Plug Type #4
- Chassis with One Processor Planar
- 4 Core 3.02GHz POWER 8 Processor Module
- (2) Factory Deconfiguration of 1-Core
- Language Group Specify US English
- Rack-mount Rail Kit

#### SYSTEM SOFTWARE

- IBM POWER 8 Model S814 8286-41A
- IBM AIX Express Edition Ver. 7.1
- Per Processor Activation, 2 Core
- DVD Process Charge

# **IBM SERVICES**

IBM POWER 8 Model S814 8286-41A

- 3 Year HW/SW Maintenance, 24X7X4 WSU



### DESCHUTES COUNTY 911 SERVICE DISTRICT, OR Public Safety Hardware Specifications - Workstations Version 11.x 5/31/2016

# **RECOMMENDED CLIENT SPECIFICATIONS**

# DESCRIPTION

## Call Taker/Dispatcher Workstation

- Intel Core i7 Processor
- Windows 7 Professional / Windows 8.1 Professional
- 8GB System Memory
- Keyboard, Mouse, DVD-ROM
- 25GB Available Hard Drive Space
- Integrated GB Ethernet
- Integrated Audio w/External Speakers (Audible Alerts)
- (3) 19" / 21" Flat Panel Color Monitors DVI/DP
- Dual/Quad Port Graphics with 2GB Memory and Shader Model Graphics

### **RMS/JMS Workstation**

- Intel Core i5/i7 Processor
- Windows 7 Professional / Windows 8.1 Professional
- 4GB System Memory
- Keyboard, Mouse, DVD-ROM
- 25GB Available Hard Drive Space
- Integrated GB Ethernet
- (1) 19" / 21" Flat Panel Color Monitor DVI/DP
- Standard/Integrated Graphics Adapter

### Mobile Data Computer

- Intel Core i5/i7 Processor
- Windows 7 Professional / Windows 8.1 Professional
- 4GB System Memory
- 25GB Available Hard Drive Space
- 13.3" LCD Display (Touchscreen Optional)
- Backlit Keyboard, DVD-ROM
- Optional Integrated 4G/LTE Mobile Broadband w/GPS

#### Windows Tablet

- Intel Core i5 Processor
- Windows 8.1 Professional
- 4GB System Memory
- 64GB Storage Capacity (SD/Micro SD)
- 10.1" 1920 X 1200 LED Display
- WiFi 802.11a/b/g/n
- Optional Integrated 4G/LTE Mobile Broadband w/GPS