



**MOTOROLA SOLUTIONS**

Firm Priced Proposal

**Albany County Sheriff's Department**

APX NEXT

September 9, 2022

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Section 1

# System Description

## 1.1 Introduction

Motorola Solutions, Inc. (hereinafter Motorola Solutions) is proposing a solution for Albany County to provide communications for 150 APX NEXT radios when they roam outside the LMR coverage.

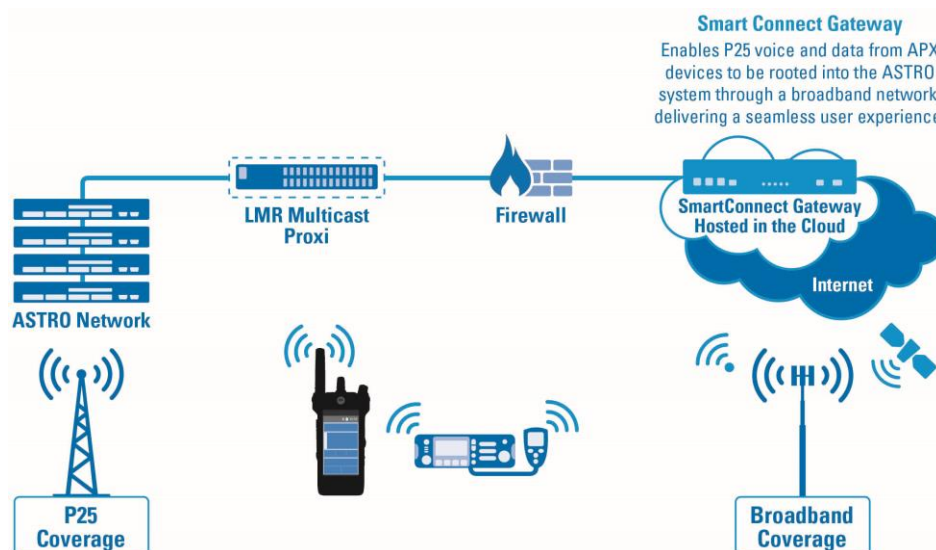
## 1.2 Proposed Solution

Motorola Solutions is proposing the use of the APX NEXT single band radio. Each radio will communicate via LTE coverage when the unit roams outside of the coverage of the home system.

The APX NEXT radios through LTE will communicate with the SmartConnect Gateway which in turn will link to the existing County's Core. New firewall will be added to the Core for the link to the SmartConnect Gateway.

### 1.2.1 SmartConnect Application Service

First responders need to know that they are covered and supported with critical intelligence no matter where the mission takes them. Leveraging APX NEXT and supported devices, SmartConnect keeps users connected and maintains critical LMR features through a broadband connection. By seamlessly switching between P25 LMR and LTE cellular networks, SmartConnect extends reliable PTT communications as radio users roam onto supported broadband networks. Authentication, status, talkgroups, and encryption are all preserved automatically, without interruptions or resets to ensure that end users continue to have access to the critical features they need in emergency situations.



APX NEXT Network Elements of SmartConnect

SmartConnect allows users to retain most P25 radio features when out of range of LMR, including the following:

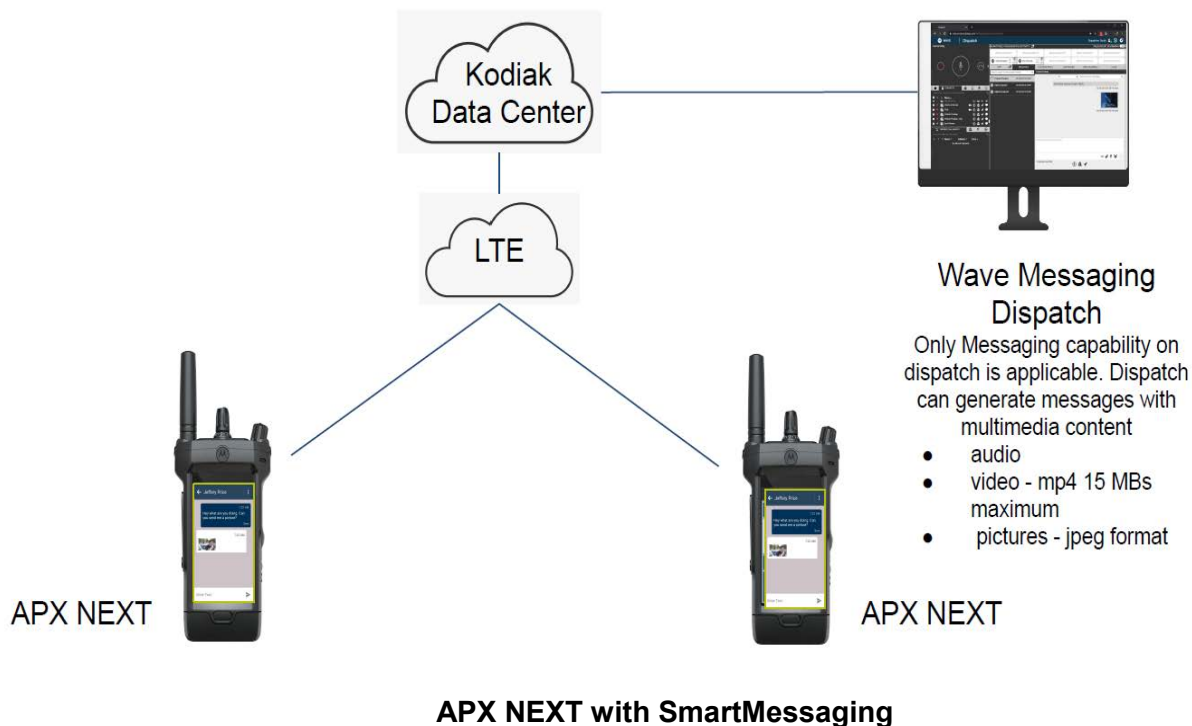
- Agency Groups.
- Dynamic Regrouping.
- Call Alert.
- Emergency Call & Alarm.
- FDMA/TDMA to/from LMR System.
- Group Call Clear/Encrypted.
- Group Regrouping.
- Multigroup.
- PTT ID.
- Priority Monitor Scan.
- Radio Authentication.
- Radio Check.
- Radio Inhibit/Uninhibit.
- Radio Interrupt/Console Takeover.
- Status Update.
- ViQi: Virtual Partner via LMR network (not proposed)

The SmartConnect Application Service is proposed as a subscription-based model to optimize budget and scale to meet evolving needs.

### 1.2.2 SmartMessaging Application

SmartMessaging is a per-device subscription service that allows an APX NEXT device to send and receive multimedia messages. SmartMessaging's enhanced messaging capabilities enable first responders to seamlessly and discretely communicate with key partners and improve situational awareness. This is accomplished by a broadband enabled messaging application operating on the APX Next subscriber. In addition to text messages, SmartMessaging features include multimedia attachments such as images, videos, and audio files, group messaging and search.

With the proposed solution, Albany County will be able to use smartmessaging between APX NEXT subscribers; also between APX NEXT and a WAVE Dispatch Client.



### 1.2.3 ASTRO25 Connectivity Service Solution Description

Public safety communications networks are complex, and require expert design to integrate components and technologies efficiently and securely. Without effective network data transport connecting components and technologies, Albany County's public safety network and applications can be impaired by slow traffic, bottlenecks, and poor connection security. Worse, if this equipment is not designed for public safety reliability, it could unexpectedly fail and leave users stranded without a communications lifeline.

Motorola Solutions addresses these concerns with the ASTRO® 25 Connectivity Service, a managed service that integrates Albany County's ASTRO 25 sites, core, and cloud services as an end-to-end solution. With this service, Motorola Solutions designs a transport solution tailored to the needs of Albany County's ASTRO 25 network, provides the solution equipment, and implements the solution.



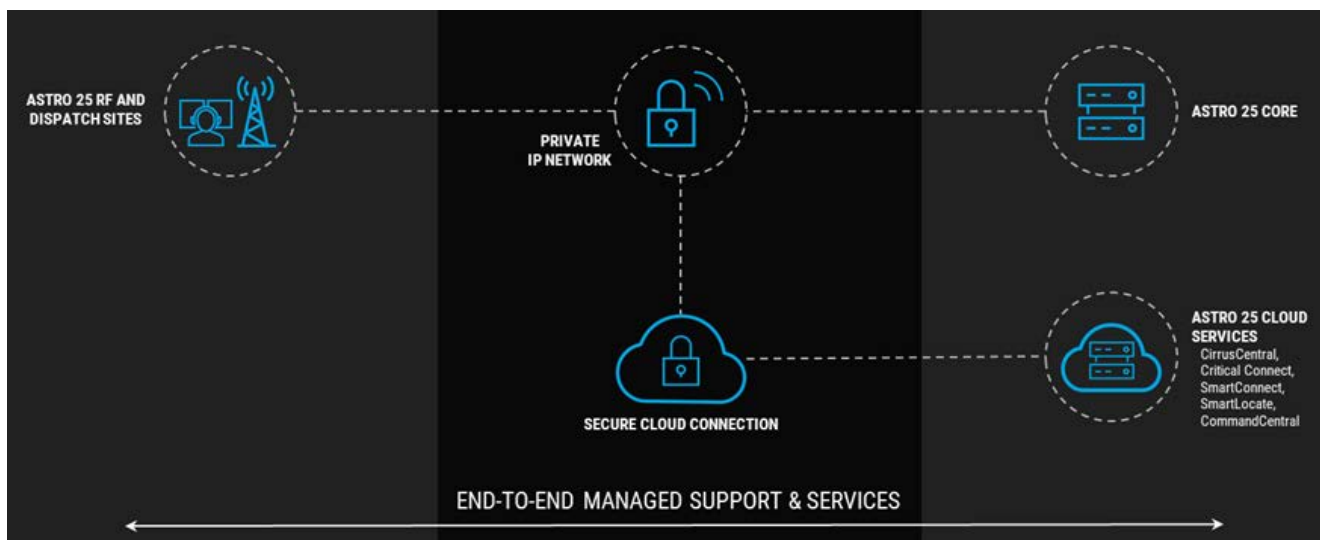


Figure 1-1: End-to-end Managed Services

The ASTRO 25 Connectivity Service provides a solution that is simple, robust, and secure. It integrates ASTRO 25 network elements via private IP network, and connects them with ASTRO 25 cloud services via a secure cloud connection. This avoids the complexity of a custom link solution and the low security of a public internet solution.

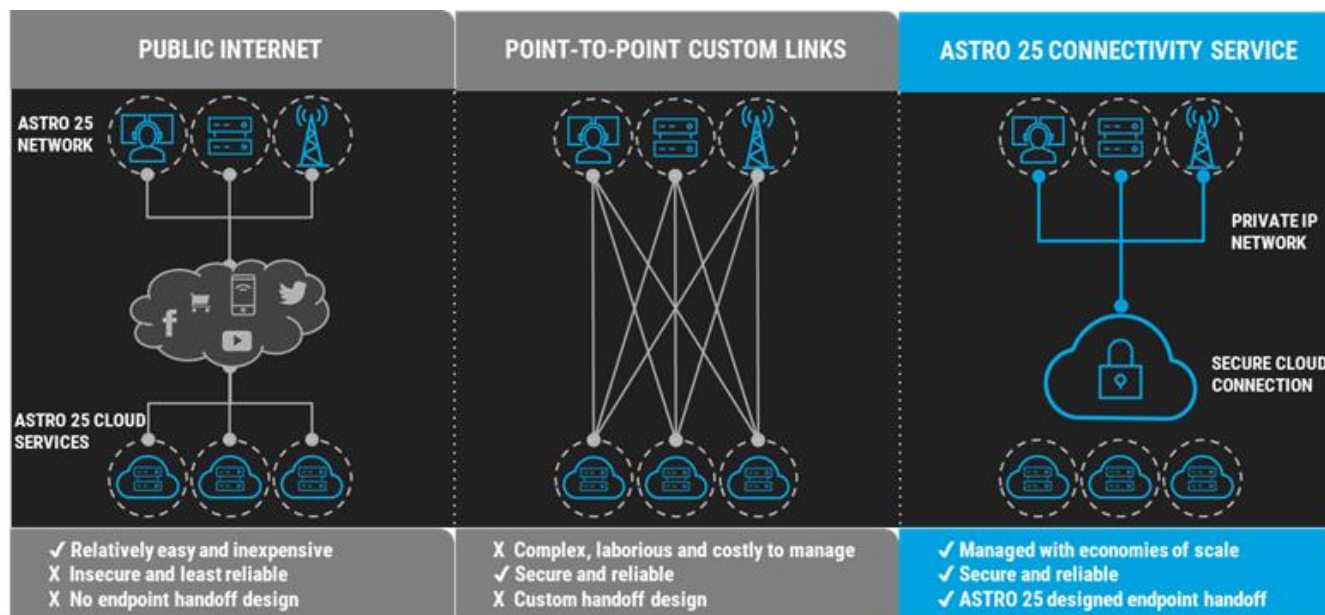


Figure 1-2: Connection Comparison

To best support ASTRO 25 networks, the ASTRO 25 Connectivity Service meets public safety specifications for reliability and performance, avoiding the pitfalls of off-the-shelf transport solutions. The service includes availability goals, supported by reliable components, design, and maintenance. Motorola Solutions handles the details of deploying and maintaining connectivity that meets public safety availability requirements.



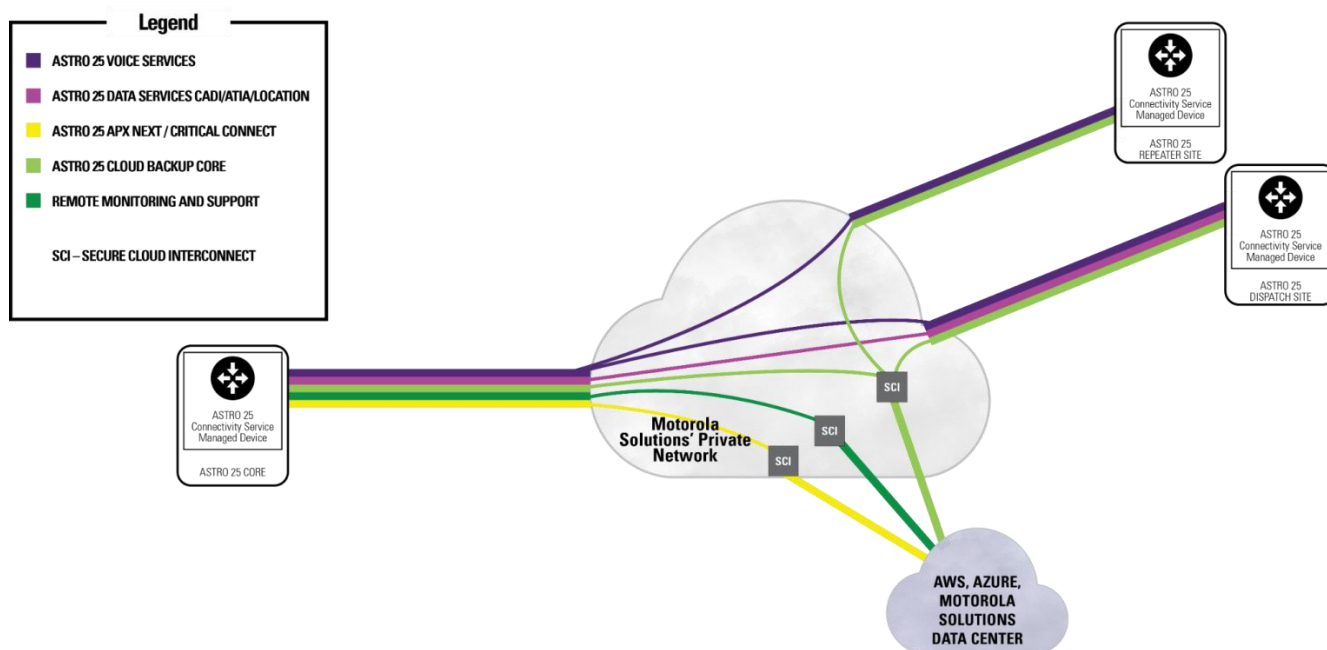
Since ASTRO 25 Connectivity Services bundles data transport into one service-based solution, it simplifies viewing and managing performance and availability. Service reporting provides a clear view of transport capabilities, better informing decisions to expand or alter service. When transport capabilities need to expand, Albany County can alter the ASTRO 25 Connectivity Service, avoiding the hassle of finding and procuring compatible new components.

In addition to simplicity, the service model replaces unexpected, variable expenses with one predictable service subscription. Motorola Solutions provides transport equipment, services, and maintenance, enabling Albany County to prepare clear and dependable budgets.

The following sections provide design and maintenance details.

## 1.2.4 ASTRO 25 Connectivity Design

The ASTRO 25 Connectivity Service serves as a single connection for multiple network services, including ASTRO 25 voice services, ASTRO 25 data services, and the services supporting Motorola Solutions cloud applications. The network services available at a site are governed by the site type, and by what equipment or applications Albany County needs to connect. A sample diagram below shows the network services sites can support. As needs change, Albany County can add more network services.



**Figure 1-3: Sample Connection Diagram**

Connections between sites and applications operate over Motorola Solutions' private network. On-premises managed devices terminate the network circuit, providing the connection point that joins Albany County's site equipment and applications to Albany County's network.

In addition to routing and network service demarcation, the on-premises device provides a firewall, controlling traffic flow in and out of Albany County's sites. This enables Albany County to control traffic traveling between Albany County's network and Cloud/Data Center resources.

For improved availability, some applications and site types can take advantage of public safety LTE backup connectivity. The solution includes this LTE connectivity with the on-premises device. With appropriate provisioning, the on-premises device can determine the best available path to use for traffic to maintain site operational status. Public safety priority and preemption will give priority to Albany County's public safety communications, helping to maintain operations during emergencies.

Motorola Solutions handles the steps to prepare and deploy the connections needed for Albany County's components. As part of this proposal, Albany County will receive connections to support the following:

- Cloud/Data Center Connections for the following applications:
  - SmartConnect
  - SmartMessaging

## 1.3 Proposed Equipment

### 1.3.1 Master Site

The following licenses will be added to the Albany County Master Site:

- Master Site SmartConnect Software
- One (1) Fortinet Firewall
- Master Site SmartMessaging Software
- One (1) WAVE Dispatch Client License (To be installed in a Customer provided PC)

### 1.3.2 Subscribers

- Qty 150 APX NEXT single band portables with:
  - TDMA Operation
  - P25 9600 Operation
  - WiFi Capability
  - AES and ADP encryption

## 1.4 APX NEXT

APX NEXT and APX NEXT XE are Motorola Solutions' next-generation P25 platforms purpose-built for first responders to access and act on information while maintaining their focus in critical situations. With natural and accessible touch interface, best-in-class audio optimized for high-noise environments, and extended coverage through broadband connectivity, APX NEXT and APX NEXT XE deliver actionable intelligence to the point of engagement for personnel to stay connected and in control wherever the mission takes them. In addition, APX NEXT XE delivers all of this in a form factor designed for extreme environments.

Equipped with broadband, LTE, WiFi, Bluetooth 5.0, and GPS capabilities, APX NEXT brings future-ready applications, services, and best-in-class connectivity to the field and control room. The APX NEXT platform's cloud-based provisioning system will allow your agency to quickly procure, provision, and update the APX NEXT fleet, reducing the downtime needed to get devices into the field and saving your support staff valuable time.

Key benefits and advanced capabilities of the APX NEXT device include the following:



- **SmartTouch Experience** – Easier operation with a redefined touch UI, centered around a new 3.6" impact resistant touch display and shallow menu hierarchy that offer more information at a glance and quicker engagement with critical applications. This cleaner and more intuitive visual layout increases the usability of the APX NEXT radio and helps your users find the information they need without pause or distraction.
- **Ruggedized, Ergonomic Design** – Increased personnel safety and efficiency with an improved T-Grip ergonomic design, full-color top display, and tactile knobs for efficient use in emergency situations. Patented touch technology enables for reliable gloved use, while also making the screen immune to false actuations from water, snow, ice, or debris. The APX Next device meets the same MIL standards for ruggedization achieved by our APX platform radios.
- **Interoperability** – Supports all public safety frequency bands (7/800 MHz, VHF, UHF) for full interoperability across radio systems with minimal intervention by the radio user.
- **Easy Fleet Management** – Easier and quicker radio provisioning, remote updates, and streamlined management for support staff, delivering greater awareness of your APX NEXT fleet. Using Motorola Solutions' cloud-based RadioCentral (RC) programming, APX NEXT supports faster provisioning and deployment to get devices in the hands of responders and out into the field.

Across all aspects of the radio experience — deployment, operation, maintenance, and evolution — APX NEXT brings critical advancements to usability and performance. This platform brings streamlined interfaces, accelerated workflows, and mission-critical reliability to your agency's operation, while the focus that responders, dispatchers, and technicians need to stay safe and effective is protected.

### 1.4.1 Evolving with Application Services

If proposed, a host of application services will enhance the APX NEXT device's capabilities in the following ways:

- Quick access to immediate, actionable intelligence via intuitive voice control and ViQi—a virtual partner that can run tags and provide detailed information through voice.
- Better coverage through automatic switching between LMR and broadband connectivity via SmartConnect.

- Accurate location data over a broadband network for more informed decision making via SmartLocate.
- Immediate software and security updates in the field using high-speed bandwidth and extended coverage of LTE networks via SmartProgramming.
- Precise and accessible location information for field users on a modernized map interface via SmartMapping.
- Seamless and discrete multimedia communications over a broadband connection via SmartMessaging.

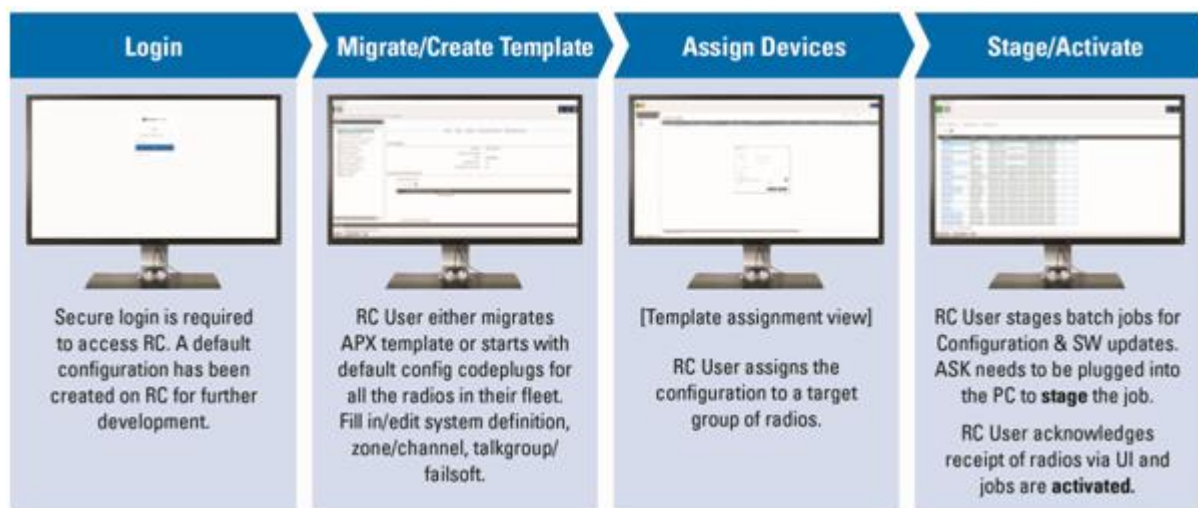
## 1.4.2 Managing and Provisioning Devices

APX NEXT delivers greater awareness and faster management of radio fleets with optimized provisioning, networking, and monitoring tools that transform accurate data into smarter action. These features enable dispatchers and network managers to make more informed operational decisions, keep radios in the field, and, above all, protect first responders' focus and safety.

Device Management Services (DMS) packages provide programming, management, and maintenance services to maximize the effectiveness of this APX NEXT solution, while reducing maintenance risk, workload, and total cost of ownership. The DMS packages are separated into tiers designed for a range of customer needs, whether the solution is self-maintained or managed by Motorola Solutions.

Using Motorola Solutions' cloud-based RadioCentral (RC) programming, APX NEXT supports faster provisioning and deployment to get devices in the hands of responders and out into the field. Parameters such as talk groups, interface options, and security keys can be programmed remotely within minutes. Access to RadioCentral is provided through the Device Management Service package.

The figure below illustrates the expedited RC provisioning process of APX NEXT.



**APX NEXT Provisioning Process via RadioCentral**

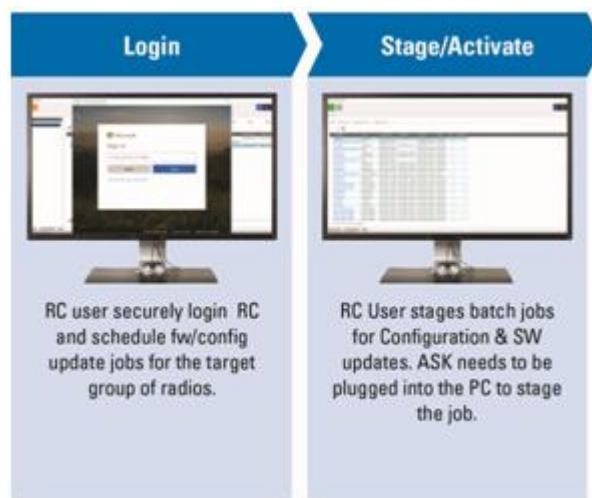
The APX NEXT out-of-the-box experience is streamlined with a few simple steps. Users will power on the device and view a boot-up animation with startup. Status bar icons on the front display indicate when a connection is made and an update download is initiated. If the APX NEXT device is being started for the first time, a "peek-in" device management notification will indicate that the default configuration is detected. When the update download is complete, the device reboots and installs the

update. When the install is complete, the device goes back to the full home screen and notifies the user that the update is complete. For Encryption and Authentication users, a KVL needs to be connected to the radio for those services. From power on to provisioning completion takes less than a minute.

### 1.4.3 Evolving with Updates and Upgrades

APX NEXT is a future-ready platform that will evolve alongside users through updates and upgrades, delivering expanded mission-critical capabilities while keeping personnel in the field where they are needed. To this end, APX NEXT eliminates the extended downtime and shop visits often associated with device upgrades; now, software patches can be automatically installed regardless of geographic location over a broadband connection, or, if proposed, immediately pushed to the field over LTE with Motorola Solutions' SmartProgramming service.

This streamlined process eliminates bottlenecks in the upgrade process and delivers important new features into users' hands. Firmware upgrades will also fit more seamlessly into workflows to avoid unnecessary disruptions. The figure below illustrates how feature updates are easily deployed to the entire radio fleet.



**Typical Firmware and Configuration Update Process via RadioCentral**

If a situation occurs where users do not have the time for an update, those updates can be delayed through a prompt until the next power cycle. This puts personnel directly in control of when updates work best for responders, especially in the chaotic environment of public safety. A snapshot of the APX NEXT device with "Install Update" prompt is shown below.



**APX NEXT In-Field Update on the Device**



## Section 2

# Statement of Work

## 2.1 Equipment Installation

Motorola Solutions is proposing to Albany County Sheriff's Department the installation and configuration of the following equipment at the specified locations.

Site Name	Major Equipment
Master Site	(1) LICENSE, SMARTCONNECT ENABLEMENT (1) FORTINET FIREWALL APPLIANCE
Portables	(150) APX NEXT

The document delineates the general responsibilities between Motorola Solutions and Albany County Sheriff's Department as agreed to by contract.

### Motorola Solutions Responsibilities

Motorola Solutions' general responsibilities include the following:

- Schedule the implementation in agreement with Albany County Sheriff's Department.
- Coordinate the activities of all Motorola Solutions subcontractors under this contract.
- Administer safe work procedures for installation.
- Receiving and inventory the equipment
- Installing, grounding, and bolting servers and firewall at (existing rack) the core
- Programming portable radios with Albany County Sheriff's Department supplied code plug (up to 10 code plugs conversions have been included).
- Verify the operational functionality and features of the solution.

### Albany County Sheriff's Department Responsibilities

Albany County Sheriff's Department will assume responsibility for the installation and performance of all other equipment and work necessary for completion of this project that is not provided by Motorola Solutions. General responsibilities for Albany County Sheriff's Department include the following:

- Provide access to the Master Site
- Provide code plugs to load on the new portables radios.
- Ensure communications sites meet space, grounding, power, and connectivity requirements for the installation of all equipment.
- Provide the necessary AC outlets needed at the master site for the new equipment at the top of the rack.

### Assumptions

Motorola Solutions has made several assumptions in preparing this proposal, which are noted below. In order to provide a firm quote, Motorola Solutions will need to verify all assumptions or seek alternate solutions in the case of invalid assumptions.



- All existing sites or equipment locations will have adequate electrical power in the proper phase and voltage, and site grounding to support the requirements of the system described.
- Any site/location upgrades or modifications are the responsibility of Albany County Sheriff's Department.
- Approved local, State, or Federal permits as may be required for the installation and operation of the proposed equipment are the responsibility of Albany County Sheriff's Department
- Any required system interconnections not specifically outlined here will be provided by Albany County Sheriff's Department. These may include dedicated phone circuits, microwave links, or other types of connectivity.
- No coverage guarantees and/or testing are included in this proposal.
- Motorola Solutions is not responsible for interference caused or received by the Motorola Solutions-provided equipment except for interference that is directly caused by the Motorola Solutions-provided transmitter(s) to the Motorola Solutions-provided receiver(s). Should the Albany County Sheriff's Department's system experience interference, Motorola Solutions can be contracted to investigate the source and recommend solutions to mitigate the issue.
- Link requirements to the SmartConnect Gateway (Cloud) will be supplied during Contract Design Review (CDR) if the optional ASTRO 25 Connectivity service subscription is not purchased.
- System is required to be on release 2021.1 prior to implementation of this proposed solution. Albany County Sheriff's Department
- The SmartMessaging feature only works between the APX NEXT subscribers provided under this proposal. SmartMessaging does not work between legacy APX radios.
- Link requirements to the SmartConnect Gateway (Cloud) will be supplied during the Contract Design Review (CDR).
- SmartConnect application will be installed in the existing VMS01/02 servers.
- SmartMessaging WAVE dispatch application will be installed on an Albany County provided PC with internet access.

## 2.2 ASTRO 25 Connectivity Service Overview (Optional)

Motorola Solutions' ASTRO® 25 Connectivity Service ("Service") provides network backhaul to support the Albany County Sheriff's Department's mission-critical ASTRO 25 communications. The backhaul connection will link ASTRO 25 core sites with ASTRO 25 remote sites and hosted data centers. The Service will also enable connection of Motorola Solutions applications on the cloud. The ASTRO 25 Connectivity Service removes the complexity of multi-vendor management for ASTRO 25 radio network and backhaul by establishing a fully-managed end-to-end backhaul service.

Motorola Solutions will provide and install equipment to support the Service, as described in Section 2.2.2.5: ASTRO 25 Connectivity Service Sites and Equipment. In addition to providing the backhaul equipment and installation services, Motorola Solutions will maintain and manage network elements required to provide the Service ("Managed Elements"). Motorola Solutions will provide these services as needed to meet Service Availability Goals described in this SOW. Services in the SOW are delivered by Motorola Solutions and its partners.

The ASTRO 25 Connectivity Service is offered and available exclusively to ASTRO 25 systems that provide Public Safety Radio Services. The service is designed specifically to enable single vendor

sourcing for Motorola Solutions' ASTRO 25 systems and Motorola Solutions information-based applications, including SmartConnect, SmartLocate, Critical Connect, and other cloud and hosted applications provided by Motorola Solutions. These applications must be licensed from Motorola Solutions under a separate agreement to access and use the respective services.

This Statement of Work ("SOW"), including all of its subsections and attachments is an integral part of the applicable agreement ("Agreement") between Motorola Solutions, Inc. ("Motorola Solutions") and the Albany County Sheriff's Department ("Albany County Sheriff's Department").

Notwithstanding, the connectivity contemplated in the ASTRO® 25 Connectivity Service will be provided by Vesta Solutions, Inc. ("Vesta"), a wholly owned subsidiary of Motorola Solutions. In order to enable delivery of these connectivity services, Albany County Sheriff's Department's must sign the Transport Connectivity Addendum ("TCA") attached to the Agreement. Any transport or connectivity will be provided by Vesta.

In order to receive the services as defined within this SOW, the Albany County Sheriff's Department is required to keep the ASTRO 25 system within a standard support period as described in Motorola Solutions' [Software Support Policy \("SwSP"\)](#).

## 2.2.1 Prerequisites

To connect the Albany County Sheriff's Department's on-premises ASTRO 25 infrastructure sites and cores, the Service requires the Albany County Sheriff's Department to have an ASTRO 25 infrastructure service package. When purchased, the Service is integrated with the Albany County Sheriff's Department's ASTRO 25 infrastructure service package as a supplemental service. The ASTRO 25 Connectivity Service to the Albany County Sheriff's Department's ASTRO 25 infrastructure sites and core will terminate upon Albany County Sheriff's Department's cancelation of its ASTRO 25 service package.

The ASTRO 25 Connectivity Service does not require separate service packages to support cloud-hosted Motorola Solutions software products like CirrusCentral Management. The ASTRO 25 Connectivity Service is available to support cloud-hosted applications Albany County Sheriff's Department purchases from Motorola Solutions.

## 2.2.2 Product and Installation

### 2.2.2.1 Scope

Motorola Solutions will provide and manage connectivity service between the Albany County Sheriff's Department's ASTRO 25 core sites and the ASTRO 25 remote sites, cloud data centers, or hosted data centers noted in Section 2.2.2.5: ASTRO 25 Connectivity Service Sites and Equipment.

### 2.2.2.2 Motorola Solutions Responsibilities

Motorola Solutions will fulfill the following responsibilities to provide the ASTRO 25 Connectivity Service:

- Provide Managed Elements noted in Section 2.2.2.5 ASTRO 25 Connectivity Service Sites and Equipment to establish connectivity between Albany County Sheriff's Department's provided equipment and wiring for sites noted in the same table. Such Managed Elements are included in the pricing for equipment and installation and is determined by Motorola Solutions.

- Perform a site survey prior to installation to assess that all the conditions for a proper site installation can be met, including, but not limited to the presence of network facilities necessary to provide the necessary connectivity. Motorola Solutions will note any variations of the site that would affect the hardware specifications or estimated labor involved for a standard installation. If the site survey indicates a non-standard installation (for example, the need for construction of "last mile" network facilities), then a mutually-agreed change order may be required.
- Install equipment supplied by Motorola Solutions. Installation period is within 45 business days from the time Motorola Solutions and Albany County Sheriff's Department execute the Agreement and related addendum or addenda.
- When available and approved by the Albany County Sheriff's Department in writing, Motorola Solutions may use Albany County Sheriff's Department-owned or Albany County Sheriff's Department-managed resources at no additional cost to Motorola Solutions. Albany County Sheriff's Department is solely responsible for maintenance and replacement of such resources and Motorola Solutions bears no responsibility for such resources. Motorola Solutions is further not responsible for any failures in such resources.
- Cooperate with the Albany County Sheriff's Department to schedule the implementation of the ASTRO 25 Connectivity Service.
- Coordinate the activities of any Motorola Solutions subcontractors necessary to provide this service.
- Administer safe work procedures for installation.
- Assist the Albany County Sheriff's Department with operating and using the system during cutover.
- Motorola Solutions may, in its sole discretion, choose to modify the backhaul design. These changes will result in equivalent or improved capacity, cost, reliability, or availability.

### 2.2.2.3 Albany County Sheriff's Department Responsibilities

The Albany County Sheriff's Department will fulfill the following responsibilities to provide the ASTRO 25 Connectivity Service:

- Provide buildings, equipment shelters, and towers required for system installation, including building sites for backhaul equipment.
- Ensure communications sites meet space, grounding, power, and connectivity requirements for equipment installation.
- Obtain all licensing, site access, or permitting required for project implementation.
- Provide a dedicated delivery point, such as a warehouse, for receipt, inventory, and storage of equipment prior to delivery to the site(s) if requested by Motorola Solutions.
- Ensure existing sites or equipment locations have sufficient space available for the system, as specified by Motorola's R56 Standards and Guidelines for Communication.
- Ensure that existing sites or equipment locations have adequate electrical power in the proper phase, in the proper voltage, and with necessary site grounding to support the requirements of the equipment provided with the ASTRO 25 Connectivity Service.
- Perform any location upgrades or modifications.
- Obtain and maintain approved local, State, or Federal permits necessary for installing and operating the proposed equipment.

- Provide any required system interconnections not specifically included in the ASTRO 25 Connectivity Service. Links provided by the ASTRO 25 Connectivity Service are outlined in Section 2.2.2.5: ASTRO 25 Connectivity Service Sites and Equipment.
- Install demarcation equipment, air conditioning, and other equipment that is not provided by Motorola Solutions and is necessary to support the project.
- Perform work that is necessary to complete the project and is outside the scope of the installation services provided by Motorola Solutions.
- If Motorola Solutions' design requires wireless backup and out-of-band ("OOB") monitoring, Motorola Solutions may provide a wireless modem at the Albany County Sheriff's Department location for OOB monitoring for Motorola Solutions Managed Elements. The Albany County Sheriff's Department shall provide access and accommodations to install the modem.
- The Albany County Sheriff's Department will notify Motorola Solutions of any maintenance that may affect the operating status of the Managed Elements using a Albany County Sheriff's Department Maintenance Change Management Request via the Helpdesk or MyView Portal. Examples of maintenance activities include: powering down the site, a Motorola Solutions' Managed Element, or a third-party Network Terminating Unit, or resetting, re-cabling, or moving equipment components.
- If a Motorola Solutions representative visits the Albany County Sheriff's Department Site or works remotely, at Albany County Sheriff's Department's request, to investigate an issue with the Service, and the Motorola Solutions representative determines the Service is functioning properly or is prevented from resolving the issue because the Albany County Sheriff's Department did not provide access or reasonable assistance, the Albany County Sheriff's Department will be charged at published or negotiated time and material rates.
- In the event Motorola Solutions agrees to manage any of the Albany County Sheriff's Department's equipment components and determines that those components need to be upgraded before Motorola Solutions can manage them, the Albany County Sheriff's Department will need to perform any upgrades required to support Motorola Solutions' management. Potential upgrades that might be necessary include: upgrades for Managed Elements Enhanced Features, end-of-life conditions, and the like. Motorola Solutions will manage those Albany County Sheriff's Department equipment components after the necessary upgrade is complete.
- Upon Motorola Solutions request, the Albany County Sheriff's Department or designated field service technician will reboot the Managed Elements, provide the LED light statuses of the third-party provider Network Terminating Unit where applicable, verify equipment power, verify that cables are securely connected, and insert a loopback plug.

## 2.2.2.4 Availability Goals

### 2.2.2.4.1 Service Level Availability Objectives

Motorola Solutions' ASTRO 25 Connectivity Service includes service level goals, calculated using a standard formula as described below. Availability calculations include only active network sites during the reporting period. Inactive mobile sites are not factored into availability calculations. Motorola Solutions will monitor service availability 24 hours a day, 7 days a week.

## Availability Calculation

For the ASTRO 25 Connectivity Service, Motorola Solutions will provide the Albany County Sheriff's Department with availability metrics for active sites. ASTRO 25 Connectivity Service availability is the percentage of time that the circuit is available within a given calendar month.

Motorola Solutions will determine connection availability individually for each of the Albany County Sheriff's Department's ASTRO 25 Connectivity Service connections. Availability is calculated monthly by computing the total number of Critical P1 priority incident outage minutes, as defined in Table 2-2, in a calendar month and dividing that sum by the total number of minutes in a 30-day calendar month. Availability is calculated after a Critical P1 incident ticket is opened. If the site has backup connectivity, this is factored into the availability calculation. The formula for computing target availability goals is as follows:

$$\text{Availability (\%)} = (1 - (\text{Total minutes of site Hard Outage per month} \div \text{Number of days in month} \times 24 \text{ hours/day} \times 60 \text{ minutes/hour})) \times 100.$$

Table 2-1 provides Motorola Solutions' availability goals for specific site types. This table contains Motorola Solutions' Service Level Goals.

**Table 2-1: ASTRO 25 Connectivity Service Level Goals**

Site Type	Link Count	Handoff (NID to SRX)	Hardware (per link)	Wireless Backup (VRF)	Service Level Goals
ASTRO 25 Core (Primary)	2	1000 – LC Fiber	SRX	MPLS LTE	99.999%

## Outages

Availability is influenced by multiple factors, including network design, equipment, backhaul, and environmental factors. This section defines outage types, and how they factor into service availability calculations.

### Hard Outage

A hard outage, classified as a Critical P1 incident, is a complete loss of Motorola Solutions-provided backhaul connectivity, during which the Albany County Sheriff's Department cannot use the service and is prepared to release it for immediate testing. Motorola Solutions factors hard outages into availability calculations and would impact the service level goals.

### Planned Outages

Planned outages are pauses in service delivery that Motorola Solutions can notify the Albany County Sheriff's Department of in advance, with a scheduled time for when the outage will end. If a planned outage exceeds the time that was predicted by 10% of the time scheduled, then the outage will be included as an agenda item for discussion at the next meeting between Motorola Solutions and the Albany County Sheriff's Department. Motorola Solutions and the Albany County Sheriff's Department will re-categorize the outage during the meeting. Motorola Solutions does not include planned outages in connectivity availability calculations.



## *Force Majeure*

An outage resulting from a *Force Majeure* event as defined in the Agreement is not included in availability calculations, but Motorola Solutions will provide continuous commercially reasonable effort to restore system components affected by such event.

## **Availability Exclusions**

The following items are excluded from Motorola Solutions' availability calculations:

- Periods of Soft Outage, during which the Albany County Sheriff's Department is able to use the ASTRO 25 Connectivity Service, and is not prepared to release the service for immediate testing.
- Sites installed for less than one full calendar month.
- Albany County Sheriff's Department Premises Equipment ("CPE") not under Motorola Solutions 24/7 monitoring coverage.
- Sites with wireless primary access.
- Albany County Sheriff's Department sites with wireless backup access, where wireless signal strength does not meet wireless signal strength guidelines as required by Motorola Solutions.
- Any delay, act, or omission by the Albany County Sheriff's Department or a third-party, other than the local access provider, that causes or extends an outage is excluded from the availability calculation. In addition, periods of service degradation, such as slow data transmission, where a Critical P1 trouble ticket has not been opened with Motorola Solutions and Albany County Sheriff's Department has not released its Service for immediate testing are excluded.
- IN ADDITION TO THE EXCLUSIONS FROM DAMAGES SET FORTH IN THE AGREEMENT, AND NOTWITHSTANDING ANY PROVISION OF THE AGREEMENT TO THE CONTRARY, MOTOROLA SOLUTIONS WILL HAVE NO LIABILITY FOR (A) INTERRUPTION OR FAILURE OF CONNECTIVITY, VULNERABILITIES, OR SECURITY EVENTS; (B) DISRUPTION OF OR DAMAGE TO ALBANY COUNTY SHERIFF'S DEPARTMENT'S OR THIRD PARTIES' SYSTEMS, EQUIPMENT, OR DATA, INCLUDING DENIAL OF ACCESS TO USERS, OR SHUTDOWN OF SYSTEMS CAUSED BY INTRUSION DETECTION SOFTWARE OR HARDWARE; (C) AVAILABILITY OR ACCURACY OF ANY DATA AVAILABLE THROUGH THE SERVICE, OR INTERPRETATION, USE, OR MISUSE THEREOF; (D) TRACKING AND LOCATION-BASED SERVICES; OR (E) BETA SERVICES.
- **"AS IS"**. THE SOLUTION AND SUBSCRIPTION SERVICES DESCRIBED HEREIN ARE PROVIDED "AS IS". MOTOROLA SOLUTIONS DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED
- **Availability and Accuracy**. Albany County Sheriff's Department acknowledges that functionality, availability, and accuracy of the services described herein is dependent on many elements beyond Motorola Solutions' control, including databases managed by Albany County Sheriff's Department or third parties and Albany County Sheriff's Department's existing equipment, software, and Albany County Sheriff's Department Data. Therefore, Motorola Solutions does not guarantee availability or accuracy of data, or any minimum level of coverage or connectivity. Albany County Sheriff's Department agrees not to represent to any third party that Motorola Solutions has provided such guarantee. Interruption or interference with the services described herein may periodically occur.
- The Service and/or features may not be available in all areas.

#### 2.2.2.4.2 Incident Priority Definitions and Response Times

This section describes incident priority levels that support availability measurements.

**Table 2-2: ASTRO 25 Connectivity Incident Priority Definitions and Response Time Goals**

Incident Priority	Incident Definition	Primary Link Response Time Goals	Secondary Link Response Times
<b>Critical P1</b>	Hard Outage. The ASTRO 25 Connectivity Service is completely inoperable or degraded to the extent that it is unusable by the Albany County Sheriff's Department. The Albany County Sheriff's Department is prepared to release the service for immediate testing.	Monitored 24/7. Response within 15 minutes. Restoration in 3.5 hours.	8x5
<b>High P2</b>	ASTRO 25 Connectivity Service performance is degraded, but the Albany County Sheriff's Department is able to use the Service. Incidents are assigned this priority if the Albany County Sheriff's Department is not prepared to release the service for immediate testing.	Monitored 24/7. Response within 15 minutes. Restoration in 3.5 hours.	8x5
<b>Medium P3</b>	A problem is affecting an ASTRO 25 Connectivity Service component, and that problem does not impact service functionality or availability.	Monitored 24/7. Response within 15 minutes. Restoration in 3.5 hours.	8x5
<b>Low P4</b>	<ul style="list-style-type: none"> <li>Albany County Sheriff's Department's requests that do not impact the ASTRO 25 Connectivity Service, such as a Albany County Sheriff's Department request for an incident report</li> <li>Service incidents not covered by other priority levels.</li> <li>Scheduled maintenance.</li> </ul>	Monitored 24/7. Response within 15 minutes. Restoration in 3.5 hours.	8x5

#### 2.2.2.5 ASTRO 25 Connectivity Service Sites and Equipment

Table 2-3 describes sites included in the proposed backhaul design, notes their location, and lists the critical solution equipment provided for them.

**Table 2-3: ASTRO 25 Connectivity Service Interconnected Site Locations**

Site Name	Site Address
Master Site	312 Wolf Road Latham NY 12100



## 2.2.3 Availability Reports

### 2.2.3.1 Description of Service

Motorola Solutions will track the availability of the Albany County Sheriff's Department's ASTRO 25 Connectivity Service components using standardized availability reports, and will endeavor to achieve availability goals based on those reports. Motorola Solutions automatically collects and collates availability data from network elements, and uses that data to determine system health and if any maintenance or improvements are needed. Trend analysis can indicate capacity, availability, or reliability issues before they significantly affect services.

### 2.2.3.2 Scope

Each month, Motorola Solutions will create and distribute a network availability report to compare with availability levels described in Section 2.2.2.4: Availability Goals.

This service includes the following tasks:

- Data Collection—Availability data is remotely collected and stored for reporting purposes.
- Data Reporting—A suite of availability reports is generated and uploaded to MyView Portal.

### 2.2.3.3 Inclusions

Availability reports will be provided for Motorola Solutions-provided site connections included as part of the ASTRO 25 Connectivity Service.

### 2.2.3.4 Motorola Solutions Responsibilities

- Collect availability data through defined interfaces.
- Provide the availability reports within MyView Portal.
- Provide a Motorola Solutions point of contact for questions the Albany County Sheriff's Department has about the findings or service reports provided by Motorola Solutions.

### 2.2.3.5 Limitations and Exclusions

- Motorola Solutions' availability target objectives, and related availability calculations, exclude availability degradation resulting from Albany County Sheriff's Department's failure to promptly take necessary actions.

### 2.2.3.6 Albany County Sheriff's Department Responsibilities

- Designate an authorized reporting contact to work with Motorola Solutions to address any questions.
- When necessary, perform corrective actions identified by Motorola Solutions' project team as outside the scope of Motorola Solutions' responsibilities.

## 2.2.4 Backhaul Event Monitoring

### 2.2.4.1 Description of Service

Backhaul Event Monitoring provides real-time end-to-end event monitoring and fault isolation for ASTRO 25 Connectivity Service backhaul components and links. A set of sophisticated tools support remote detection and classification of events on the Albany County Sheriff's Department's backhaul network. When an event is detected, Motorola Solutions will determine the status of impacted backhaul links and engage with other service teams as needed to isolate the cause and resolve the incident. Motorola Solutions will respond to incidents in accordance with Section 2.2.2.4.2: Incident Priority Definitions and Response Times.

### 2.2.4.2 Scope

Backhaul Event Monitoring is available 24 hours a day, 7 days a week. Motorola Solutions' tools and processes for monitoring ASTRO 25 radio networks will be leveraged to monitor the backhaul endpoints effectively, and to provide a consistent monitoring experience if receiving both services. Incidents that are generated by the monitoring service will be handled in accordance with Section 2.2.2.4.2: Incident Priority Definitions and Response Times.

### 2.2.4.3 Inclusions

Backhaul Event Monitoring is provided for the links and equipment listed in Section 2.2.2.5: ASTRO 25 Connectivity Service Sites and Equipment.

### 2.2.4.4 Motorola Solutions Responsibilities

- Use concurrent connectivity through the network connection established to support Backhaul Event Monitoring.
- Verify connectivity and event monitoring after system installation is complete.
- Monitor backhaul links continuously 24 hours per day, 7 days per week.
- Create incident tickets when necessary. Identify and classify the link associated with the incident. Gather information to perform the following:
  - Characterize the issue.
  - Determine a plan of action.
  - Assign and track the incident to resolution.
- Remotely access the Albany County Sheriff's Department's backhaul to perform remote diagnosis and fault isolation as permitted by the Albany County Sheriff's Department pursuant to Section 2.2.4.6: Albany County Sheriff's Department Responsibilities.
- Dispatch the Albany County Sheriff's Department's field service technician designated in the CSP when necessary, and maintain communications with the Albany County Sheriff's Department until the incident is resolved. Provide updates in accordance with the agreed frequency, until resolution.

### 2.2.4.5 Limitations and Exclusions

- Monitoring excludes Albany County Sheriff's Department Enterprise Network ("CEN") components.

- Additional support charges beyond the contracted service rates may apply if Motorola Solutions determines that system faults were caused by the Albany County Sheriff's Department making changes to critical system parameters.
- Motorola Solutions is not responsible for system faults or deficiencies that are caused by changes or modifications to the system not performed by Motorola Solutions.

#### 2.2.4.6 Albany County Sheriff's Department Responsibilities

- Provide Motorola Solutions with continuous remote access to enable the monitoring service.
- Provide continuous utility service to any Motorola Solutions backhaul equipment installed or used at the Albany County Sheriff's Department's premises to support delivery of the service. The Albany County Sheriff's Department agrees to take reasonable due care to secure the Motorola Solutions equipment from theft or damage while on the Albany County Sheriff's Department's premises.
- Prior to contract start date, provide Motorola Solutions with pre-defined information necessary to complete a CSP, including:
  - Incident notification preferences and procedure.
  - Repair verification preference and procedure.
  - Database and escalation procedure forms.
- Submit changes in any information supplied to Motorola Solutions and included in the CSP to the Albany County Sheriff's Department Support Manager ("CSM").
- Notify the CMSO when the Albany County Sheriff's Department performs any activity that impacts the backhaul components. Activity that impacts the backhaul components may include, but is not limited to: installing software or hardware upgrades, performing upgrades to the network, renaming elements or devices within the network, and taking down part of the system to perform maintenance.
- Allow Motorola Solutions' field service technician, designated in the CSP, access to equipment, including any connectivity or monitoring equipment, if remote service is not possible.
- Allow Motorola Solutions' field service technician, designated in the CSP, access to remove Motorola Solutions-owned monitoring equipment upon cancellation of service.
- Provide Motorola Solutions with all Albany County Sheriff's Department-managed passwords required to access the Albany County Sheriff's Department's system upon request, when opening a request for service support, or when needed to enable response to a technical issue.
- Pay additional support charges above the contracted service agreements that may apply if it is determined that backhaul faults were caused by the Albany County Sheriff's Department making changes to critical system parameters without written agreement from Motorola Solutions.
- Cooperate with Motorola Solutions and perform reasonable or necessary acts to enable Motorola Solutions to provide these services.
- Acknowledge that incidents will be handled in accordance with Section 2.2.2.4.2: Incident Priority Definitions and Response Times.

## 2.2.5 Remote Technical Support

### 2.2.5.1 Description of Service

Motorola Solutions' Remote Technical Support service provides telephone consultation for technical issues that require ASTRO 25 Connectivity Service backhaul knowledge and troubleshooting capabilities. As with ASTRO 25 incidents, the CMSO Service Desk will respond to ASTRO 25 Connectivity Service incidents.

### 2.2.5.2 Scope

The CMSO Service Desk is available via telephone 24 hours per day, 7 days per week, and 365 days per year to receive and log requests for technical support. Remote Technical Support service is provided in accordance with Section 2.2.2.4.2: Incident Priority Definitions and Response Times. Any unresolved incidents will be escalated to Motorola Solutions engineering and Original Equipment Manufacturers (OEM) for further assistance.

### 2.2.5.3 Motorola Solutions Responsibilities

- Maintain availability of the Motorola Solutions CMSO Service Desk via telephone (800-221-7144) 24 hours per day, 7 days per week, and 365 days per year to receive, log, and classify Albany County Sheriff's Department requests for support.
- Respond to requests for service in accordance with Section 2.2.2.4.2: Incident Priority Definitions and Response Times.
- Provide caller a plan of action outlining additional requirements, activities, or information required to achieve restoral/fulfillment.
- Maintain communication with the Albany County Sheriff's Department in the field as needed until resolution of the incident.
- Coordinate technical resolutions with agreed upon third-party vendors, as needed.
- Escalate support issues to additional Motorola Solutions technical resources, as applicable.
- Determine, in its sole discretion, when an incident requires more than the Remote Technical Support services described in this SOW and notify the Albany County Sheriff's Department of an alternative course of action.

### 2.2.5.4 Limitations and Exclusions

The following activities are outside the scope of the Remote Technical Support service:

- Albany County Sheriff's Department training.
- Remote Technical Support for network transport equipment or third-party products not sold by Motorola Solutions.
- Any maintenance and/or remediation required as a result of a virus or unwanted cyber intrusion.

### 2.2.5.5 Albany County Sheriff's Department Responsibilities

- Submit changes in any information supplied in the CSP to the Albany County Sheriff's Department Support Manager ("CSM").

- Contact the CMSO Service Desk to engage the Remote Technical Support service when needed, providing the necessary information for proper entitlement services. This information includes, but is not limited to, the name of contact, name of Albany County Sheriff's Department, system ID number, site(s) in question, and a brief description of the problem that contains pertinent information for initial issue classification.
- Maintain suitably trained technical resources familiar with the operation of the Albany County Sheriff's Department's system to provide field maintenance and technical maintenance services for the system.
- Supply suitably skilled and trained on-site presence when requested.
- Validate issue resolution in a timely manner prior to close of the incident.
- Acknowledge that incidents will be handled in accordance with Section 2.2.2.4.2: Incident Priority Definitions and Response Times.
- Cooperate with Motorola Solutions, performing acts that are reasonable or necessary to enable Motorola Solutions to provide Remote Technical Support. These actions include, but are not limited to, providing System IP information, local hardware logs, software versions, and Albany County Sheriff's Department change management information.

## 2.2.6 On-site Response

Motorola Solutions' On-site Response service provides incident management and escalation for on-site technical service requests. The service is delivered by Motorola Solutions' Centralized Managed Support Operations ("CMSO") organization in cooperation with a local service provider.

### 2.2.6.1 Description of Service

The Motorola Solutions CMSO Service Desk will receive the Albany County Sheriff's Department's request for on-site service.

The CMSO Dispatch Operations team is responsible for opening incidents, dispatching on-site resources, monitoring issue resolution, and escalating as needed to achieve response time goals.

The dispatched field service technician will travel to the Albany County Sheriff's Department's location to restore the system in accordance with Section 2.2.2.4.2: Incident Priority Definitions and Response Times.

Motorola Solutions will manage incidents as described in this SOW. The CMSO Service Desk will maintain contact with the field service technician until incident closure.

### 2.2.6.2 Scope

On-site Response is available as needed to support the availability described in Section 2.2.2.4: Availability Goals.

### 2.2.6.3 Inclusions

On-site Response is provided for hardware included with ASTRO 25 Connectivity Service.

### 2.2.6.4 Motorola Solutions Responsibilities

- Receive service requests.

- Create an incident when service requests are received. Gather information to characterize the issue, determine a plan of action, and assign and track the incident to resolution.
- Dispatch a field service technician, as required by Motorola Solutions' standard procedures, and provide necessary incident information.
- Provide the required personnel access to relevant Albany County Sheriff's Department information, as needed.
- Motorola Solutions designated field service technician will perform the following on-site:
  - Run diagnostics on the component.
  - Perform physical fault restoration and hardware maintenance to restore component functions.
  - Provide materials, tools, documentation, physical planning manuals, diagnostic and test equipment, and any other material required to perform the maintenance service.
  - If a third-party vendor is needed to restore the system, the vendor can be accompanied onto the Albany County Sheriff's Department's premises.
  - If required by the Albany County Sheriff's Department's repair verification in the Albany County Sheriff's Department Support Plan ("CSP"), verify with the Albany County Sheriff's Department that restoration is complete or system is functional. If verification by the Albany County Sheriff's Department cannot be completed within 20 minutes of restoration, the incident will be closed and the field service technician will be released.
  - Escalate the incident to the appropriate party upon expiration of a response time.
- Close the incident upon receiving notification from the Albany County Sheriff's Department or Motorola Solutions on-site service technician, indicating the incident is resolved.
- Notify the Albany County Sheriff's Department of incident status, as defined in the CSP and Service Configuration Portal ("SCP"):
  - Open and closed.
  - Open, assigned to the Motorola Solutions field service technician, arrival of the service technician on-site, delayed, or closed.
- Provide incident activity reports to the Albany County Sheriff's Department, if requested.

#### 2.2.6.5 Albany County Sheriff's Department Responsibilities

- Contact Motorola Solutions, as necessary, to request service.
- Prior to start date, provide Motorola Solutions with the following pre-defined Albany County Sheriff's Department information and preferences necessary to complete CSP:
  - Incident notification preferences and procedure.
  - Repair verification preference and procedure.
  - Database and escalation procedure forms.
- Submit changes in any information supplied in the CSP to the Albany County Sheriff's Department Support Manager ("CSM").
- Provide the following information when initiating a service request:
  - Assigned system ID number.
  - Problem description and site location.
  - Other pertinent information requested by Motorola Solutions to open an incident.
- Provide field service technician with access to equipment.
- Supply spare or FRU, as applicable, in order for Motorola Solutions to restore the system.

- Maintain and store software needed to restore the system in an easily accessible location.
- Maintain and store proper system backups in an easily accessible location.
- If required by repair verification preference provided by the Albany County Sheriff's Department, verify with the CMSO Service Desk and dispatch that restoration is complete or system is functional.
- Cooperate with Motorola Solutions and perform reasonable or necessary acts to enable Motorola Solutions to provide these services.
- In the event that Motorola Solutions agrees to provide On-site Response to Albany County Sheriff's Department-provided third-party elements, the Albany County Sheriff's Department agrees to obtain and provide applicable third-party consents or licenses to enable Motorola Solutions to provide the service.

## 2.2.7 Software Updates

### 2.2.7.1 Description of Service

Each quarter, Motorola Solutions will provide relevant Original Equipment Manufacturer ("OEM") software patches for backhaul equipment included as part of the ASTRO 25 Connectivity Service. These patches will update equipment when required to maintain compatibility with components or will address security vulnerabilities.

### 2.2.7.2 Scope

Motorola Solutions will update network components when it determines it is necessary to maintain the ASTRO 25 Connectivity Service, and will provide security updates as needed to address identified security vulnerabilities.

Software Updates follow Motorola Solutions' defined change management process to avoid potential disruption. Once an OEM software update is available, Motorola Solutions initiates the change process to define the update's impact and work with the Albany County Sheriff's Department to schedule its implementation.

### 2.2.7.3 Inclusions

Motorola Solutions will provide relevant software patches and updates as provided by OEMs based on a schedule mutually agreed by the parties.

### 2.2.7.4 Motorola Solutions Responsibilities

- Provide relevant software and security patches to the Albany County Sheriff's Department when provided by the OEM.
- Notify the Albany County Sheriff's Department if an update will require network downtime to implement.
- Work with the Albany County Sheriff's Department to schedule installation of disruptive software patches.



### 2.2.7.5 Limitations and Exclusions

- Motorola Solutions does not provide warranties on software updates. Warranties on software updates, if available, will be provided directly by the OEM.

### 2.2.7.6 Albany County Sheriff's Department Responsibilities

- Work with Motorola Solutions to schedule installation of disruptive software patches.

## 2.3 SmartConnect Overview

The Statement of Work defines the principal activities and responsibilities of Motorola Solutions and the Albany County Sheriff's Department during SmartConnect deployment. The deployment process is a collaborative effort between Albany County Sheriff's Department system administrators, subject matter experts, and the Motorola Solutions deployment team.

Motorola Solutions' project manager will use the Statement of Work to guide the deployment process and coordinate the activities of all Motorola Solutions resources and teams. The project manager will also work closely with the Albany County Sheriff's Department's project manager to clearly communicate the required deployment activities and schedule tasks involving Albany County Sheriff's Department resources.

### 2.3.1 Project Roles

#### Motorola Solutions Project Manager

The Motorola Solutions Project Manager is the single point of contact with the Albany County Sheriff's Department Project Manager and is responsible for scheduling and coordinating Motorola Solutions resources and task completion. The Motorola Solutions Project Manager assures the delivery of contracted components in accordance with the project schedule and is responsible for the transition of the Albany County Sheriff's Department to Motorola Solutions Albany County Sheriff's Department Support post deployment.

#### Motorola Solutions ASTRO Field Engineer

Installs and configures the ASTRO software components of the system. Configures ASTRO network components to provide connectivity to the cloud platform.

#### Motorola Solutions Support

Motorola Solutions Support organization provides varying levels of service up to and including technical support services. Following project finalization, ongoing service will be provided by Motorola Solutions Support in accordance with the Albany County Sheriff's Department support plan.

#### Albany County Sheriff's Department Project Manager

The Albany County Sheriff's Department Project Manager is responsible for scheduling and coordinating Albany County Sheriff's Department/agency resources and task completion. The Albany County Sheriff's Department Project Manager works collaboratively with the Motorola Solutions PM to assure completion of Albany County Sheriff's Department tasks in accordance with the project schedule.

#### Albany County Sheriff's Department System Administrator(s)

Responsible for SmartConnect User and radio subscriber provisioning via CommandCentral Admin and ongoing coordination with Motorola Solutions System Support.

#### Albany County Sheriff's Department Network Administrator

Responsible for network and firewall configuration. Works with ASTRO Field Engineer to provide and verify network connectivity between the ASTRO system and the cloud platform.

### 2.3.2 Data Collection and Planning Session

Motorola Solutions will conduct a remote working session with the Albany County Sheriff's Department System Administrators and agency user representatives to provide an overview of SmartConnect operation and collect provisioning data. This activity is performed via teleconference.

#### **Motorola Solutions Responsibilities**

1. Conduct a remote, one to two hour, planning session with representatives of each agency using SmartConnect.
2. Review SmartConnect functionality and configuration options.
3. Document each agency's configuration, admin users, initial subscribers and users.

#### **Albany County Sheriff's Department Responsibilities**

1. Schedule planning session with representatives of each agency.
2. Provide Administrator, User, Subscriber, and Group information for provisioning.

#### **Completion Criteria**

Planning sessions completed.

### 2.3.3 Domain and Device Setup

The Radio Subscribers must be provisioned within the CommandCentral Cloud Platform using the Command Central Admin tool. Motorola Solutions will provision the Albany County Sheriff's Department's current inventory of APX subscribers. The Albany County Sheriff's Department will assume responsibility to provision all subsequently procured APX devices.

#### **Motorola Solutions Responsibilities**

1. If a SmartConnect agency has not been previously established for the ASTRO system, use the CommandCentral Admin tool to establish the Albany County Sheriff's Department Domain within the CommandCentral cloud platform. This activity will be initiated during the order process.
2. Use the CommandCentral Admin tool to provision SmartConnect based on the information collected during the Data Collection and Planning Session activity:
  - a. Setup Command Central administration and user passwords
  - b. Provision radio subscriber devices (radio serial number and ASTRO Unit ID). All subscriber devices on an ASTRO system are provisioned by a single CC Admin agency account. This may be performed individually or by importing the device information from

a .csv file.

### **Albany County Sheriff's Department Responsibilities**

1. Identify System Administrator(s)
2. Assure all System Administrators complete the CommandCentral Admin training
3. Use the CommandCentral Admin tool to provision all APX subscribers procured after the completion of the SmartConnect enablement project.

### **Completion Criteria**

All agencies, users and devices are provisioned.

## **2.3.4 SmartConnect Gateway Configuration**

The SmartConnect Gateway enables the connection between the Albany County Sheriff's Department's ASTRO system and the SmartConnect cloud services and broadband service. The SmartConnect Gateway must be configured to accept a connection from the ASTRO system's LMP proxy.

### **Motorola Solutions Responsibilities**

1. Enable SmartConnect Gateway service.
2. Generate the passphrase for the LMPs using CCAdmin.

### **Albany County Sheriff's Department Responsibilities**

- None

### **Completion Criteria**

SmartConnect Gateway connection enabled.

## **2.3.5 ASTRO Infrastructure Preparation**

Operation of SmartConnect requires a minimum ASTRO infrastructure software version and specific hardware components. These elements are not included with SmartConnect and must be in place prior to SmartConnect deployment. SmartConnect requires the following ASTRO infrastructure version and equipment:

- ASTRO version: 2021.1
- Internetworking Firewall hardware and software (shared component)

### **Motorola Solutions Responsibilities**

- Review the current ASTRO system and document the availability and configuration of the components required for SmartConnect deployment.
- Identify any software upgrades or additional equipment required to support SmartConnect.

### **Albany County Sheriff's Department Responsibilities**

- Procure ASTRO infrastructure upgrades and equipment required for SmartConnect operation.

### **Completion Criteria**

- Albany County Sheriff's Department's ASTRO infrastructure is operational with the required software version and equipment required for SmartConnect deployment.

## 2.3.6 ASTRO System Configuration

SmartConnect specific software components and network configurations must be added to the ASTRO System. Motorola Solutions will install and configure these items during the SmartConnect deployment.

### Motorola Solutions Responsibilities

- Cable and configure the transport (existing: core LAN switch, DMZ switch, DMZ firewall, internetworking firewall) using TNCT.
- Verify connectivity with SmartConnect Cloud Gateway via Internetworking Firewall.
- Configure NM with pseudo-site for Backup PTT using a UNC configlet for each Zone Controller and ATR in the target zone.
- Assess the number of Talk Groups and Calls to determine the required backhaul capacity. Provide backhaul capacity requirements to Albany County Sheriff's Department admin.

### Albany County Sheriff's Department Responsibilities

- Coordinate and schedule ASTRO component software installation to minimize the impact on production operation.
- Provide dedicated internet connection for Internetworking Firewall. Assure that the network connection meets the following service level:
  - The internet connection between ASTRO system (LMP) and the SmartConnect Gateway in the cloud require a base bandwidth of 25Kbps plus a bandwidth of 20k bits per second per group call. NOTE: If the SmartConnect Gateway is configured as "requested site" for groups in the ASTRO system, all calls on that group are routed to the SmartConnect Gateway independent whether radios have affiliated to the group or not in the broadband domain. The configuration as "requested site" ensures that the radio will be offered calls from scanned groups, but it also increases the load on the connection between the LMP and the SmartConnect Gateway.
  - 1/1 Mbps symmetric Internet connection is required for 36 simultaneous calls (for release prior to 2019.2).
  - 5/5 Mbps symmetric Internet connection is required for 200 simultaneous calls.( for release 2019.2 and onwards)
  - Availability > 99.99%. A lower performance will decrease the SmartConnect feature reliability proportionality.
  - Packet loss less than 0.5%. A higher packet loss will lower the reliability and the audio quality.
  - Average delay introduced by the Internet Service Provider less than 20ms.
  - Average jitter introduced on the Internet Service Provider is less than 10ms.

### Completion Criteria

Albany County Sheriff's Department ASTRO infrastructure is operational with the required software versions and configured to support SmartConnect operation.

## 2.3.7 Subscriber Provisioning

APX subscribers must be provisioned on the Albany County Sheriff's Department's ASTRO system prior to operation. Subscriber provisioning must include specific parameters to enable SmartConnect operation.

### **Motorola Solutions Responsibilities**

- Provide SmartConnect provisioning parameters (FQDN for SmartConnect GW, ports)
- Provision one APX subscriber to validate the parameters.
- Demonstrate the provisioning process and required parameters to Albany County Sheriff's Department System Administrator.
- Assure that APX subscribers have been previously provisioned on the ASTRO system

### **Albany County Sheriff's Department Responsibilities**

- 
- Assure that APX subscribers' code plug configurations have been provisioned in RadioCentral and that the APX Subscribers have been programmed.
- Download and install the latest version of the RadioCentral programming client.
- Provision balance of APX subscribers for SmartConnect using the RadioCentral client.
- Provision balance of APX subscribers for SmartConnect using CPS software.
- Update the provisioning parameters of any existing subscribers that will utilize SmartConnect capability.

### **Completion Criteria**

All subscribers covered by a SmartConnect feature subscription are provisioned with SmartConnect parameters.

## 2.3.8 Operational Demonstration

After the solution deployment, Motorola Solutions will provide an operational demonstration to the Albany County Sheriff's Department project manager, system administrator, and end user representatives.

### **Motorola Solutions Responsibilities**

- Provide the Operational Demonstration Script
- Demonstrate SmartConnect operation.

### **Albany County Sheriff's Department Responsibilities**

- Participate in SmartConnect demonstration.

### **Completion Criteria**

Complete after successful demonstration of SmartConnect operation.

## 2.3.9 Project Finalization and Handover to Support

Finalization is the process of confirming that all project activities have been completed and project documentation has been delivered. During this activity, Motorola Solutions will transition responsibility

for SmartConnect from the Project Manager to the Motorola Solutions support team. The Albany County Sheriff's Department's Project Manager will transition support to the System Administrator(s).

### **Motorola Solutions Responsibilities**

1. Verify project deliverables have been received by the Albany County Sheriff's Department Project Manager
2. Confirm with Albany County Sheriff's Department that SmartConnect is available for Albany County Sheriff's Department's beneficial use.
3. Provide the SmartConnect Configuration Document.
4. Conduct a teleconference introducing Albany County Sheriff's Department to Motorola Solutions Support organization. The purpose of the teleconference is to review the SmartConnect support process and obtain contact information with the Albany County Sheriff's Department's assigned system administrator(s) and the Motorola Solutions Support Team
5. Provide on-going support in accordance with the terms and conditions of the support agreement

### **Albany County Sheriff's Department Responsibilities**

1. Provide confirmation of receipt of project deliverables with the Motorola Solutions Project Manager
2. Participate in the support hand over teleconference. Assure that System Administrator(s) understand the support process and have the correct contact information

### **Completion Criteria**

Project finalization is complete upon delivery of the final SmartConnect Configuration Document and the conclusion of the teleconference with Motorola Solutions Support organization.

Section 3

# Equipment List

0	Item Number	Description	Quantity	Term	Unit List Price	Ext. List Price	Unit Sale Price	Ext. Sale Price
1	H45TGT9PW8AN	APX NEXT SINGLE BAND MODEL 4.5 PORTABLE.	170		6641	1128970	3491	593470
1a	QA00569AP	ADD: 7/800MHZ BAND.	170		0	0	0	0
1b	BD00001AA	ADD: CORE BUNDLE.	170		2824	480080	2118	360060
1c	H499KC	ENH: SUBMERSIBLE (DELTA T).	170		0	0	0	0
1d	H38DA	ADD: SMARTZONE OPERATION.	170		0	0	0	0
1e	Q806CH	ADD: ASTRO DIGITAL CAI OPERATION.	170		0	0	0	0
1f	Q361CD	ADD: P25 9600 BAUD TRUNKING.	170		0	0	0	0
1g	QA09028AA	ADD: VIQI VC RADIO OPERATION.	170		0	0	0	0
1h	QA03399AK	ADD: ENHANCED DATA.	170		0	0	0	0
1i	Q387CB	ADD: MULTICAST VOTING SCAN.	170		0	0	0	0
1j	QA00580BA	ADD: TDMA OPERATION.	170		0	0	0	0
1k	QA09001AM	ADD: WIFI CAPABILITY.	170		0	0	0	0
1l	Q629BD	ENH: AES ENCRYPTION AND ADP.	170		0	0	0	0
1m	QA07710AA	ALT: STUBBY 7-800MHZ 6CM ANTENNA.	170		0	0	0	0
1n	QA09030AA	ADD: CPS/RM ONLY.	170		0	0	0	0
1o	H637AA	ADD: APX NEXT DMS BUNDLE PROMO.	170		-22.95	-3901.5	-22.95	-3901.5
1p	H636AB	ADD: APX NEXT APPLICATION BUNDLE PROMO.	170		-300	-51000	-300	-51000
1r	QA09017AA	ADD: LTE WITH ACTIVE SERVICE AT&T US.	170		0	0	0	0
2	LSV01P01414A	APX NEXT DMS ADVANCED W ACC DMG-PROMO.	170	12 MONTHS	179.4	30498	179.4	30498
3	SSV01S01407A	APX NEXT SMART PROG-PROMO.	170	1 YEAR	75	12750	9	1530
4	SSV01S01406A	APX NEXT SMART CONNECT - PROMO.	170	1 YEAR	75	12750	9	1530
5	SSV01S01476A	APX NEXT SMART LOCATE-PROMO.	170	1 YEAR	75	12750	9	1530
6	SSV01S01408B	APX NEXT VIQI	170	1 YEAR	75	12750	9	1530
8	PSV00S01424A	APX NEXT PROVISIONING.	170		0	0	0	0
9	PSV01S02941A	SMARTMESSAGING ENABLEMENT.	170		0	0	0	0
10	PSV01S02944A	PROVISIONING SUPPORT.	170		0	0	0	0
11	DLN8011	Astro Connectivity to the Core (year)	1	1 YEAR	22,000.00	22,000	17,600	17,600



Section 4

# Pricing Summary

Motorola Solutions is pleased to provide the following equipment and services to Albany County Sheriff's Department.

## Equipment and Installation

Description	Price (\$)
Equipment MSRP	\$1,657,646.50
Engineering and Implementation	\$38,098.00
Template Build and Subscriber Programming	\$66,000.00
Equipment Discount	(\$725,800.00)
Additional Discount	(\$38,098.00)
<b>Total System</b>	<b>\$997,846.50</b>

Section 5

# Contractual Documentation

Provided on the following pages.