



500 W Monroe St  
Chicago, IL 60661  
(800) 247-2346

Date: 02-DEC-2025

## SERVICE AGREEMENT

Contract Number: USC000020664  
Contract Modifier: R17-FEB-2025 19:50:12

Company Name: Dakota County
Attn.: Ron Jansen Dakota County
Billing Address: 1590 Hwy 55
City, State, Zip Code: Hastings, MN 55033
Customer Contact: Ron Jansen Dakota County
Phone:

P.O.#: N/A  
Customer #: 1036397108  
Bill to Tag#: 0001  
Contract Start Date: 01-JAN-2026  
Contract End Date: 31-DEC-2028  
Payment Cycle: ANNUALLY  
Currency: USD

QTY	MODEL/OPTION	SERVICES DESCRIPTION	MONTHLY EXT	EXTENDED AMT
		***** Recurring Services *****		
	LSV01S01107A	ASTRO SYSTEM ESSENTIAL PLUS PACKAGE	\$44,545.30	\$534,542.40
	SVC02SVC0201A	ASTRO SUA II UO IMPLEMENTATION SERVICES	\$0.00	\$0.00
	SVC02SVC0343A	RELEASE IMPACT TRAINING	\$0.00	\$0.00
	SVC02SVC0344A	RELEASE IMPLEMENTATION TRAINING	\$0.00	\$0.00
	SVC02SVC0433A	ASTRO SUA II FIELD IMPLEMENTATN SVC	\$0.00	\$0.00
	SVC04SVC0169A	SYSTEM UPGRADE AGREEMENT II	\$0.00	\$0.00
Sub Total			\$44,545.20	\$534,542.40
Taxes			\$0.00	\$0.00
Grand Total			\$44,545.20	\$534,542.40
<div> <div> <b>SPECIAL INSTRUCTIONS - ATTACH STATEMENT OF WORK FOR PERFORMANCE DESCRIPTIONS</b>   Dakota County is part of the ARMER System. Special taxation terms apply. Customer receives TS, SUA, and SUS under the pricing, terms and conditions of Minnesota State Support Contract, D.O.A. Contract No. 104183 (formerly Contract No. 16494), Release No. S-914(5)** pending updated #s for 2026-2030 contract term. MSI contract # USC000007373 will remain the same.   3 yr 2026-2028  ESS+ wNetMon  (Adv Exchange REMOVED)  RF Site SZ740F10301 - SZ740F10310 </div> <div> THIS SERVICE AMOUNT IS SUBJECT TO STATE AND LOCAL TAXING JURISDICTIONS WHERE APPLICABLE, TO BE VERIFIED BY MOTOROLA SOLUTIONS </div> </div>				

I have received Applicable Statements of Work which describe the Services provided on this Agreement. Motorola's Terms and Conditions are attached hereto and incorporated herein by reference. By signing below, Customer acknowledges these terms and conditions govern all Services under this Agreement.

AUTHORIZED CUSTOMER SIGNATURE	TITLE	DATE
CUSTOMER (PRINT NAME)		
Ted Hutson	CSM	12/04/2025
MOTOROLA REPRESENTATIVE (SIGNATURE)	TITLE	DATE
TED HUTSON	847-281-6746	

---

MOTOROLA REPRESENTATIVE (PRINT NAME)

PHONE

Company Name : Dakota County  
Contract Number : USC000020664  
Contract Modifier : R17-FEB-2025 19:50:12  
Contract Start Date : 01-JAN-2026  
Contract End Date : 31-DEC-2028

## **Service Terms and Conditions**

Motorola Solutions, Inc. ("Motorola") and the County of Dakota, Minnesota ("Customer"), which entered into a Motorola Service Agreement on or about August 4, 2006 to construct an 800 MHz public safety radio system, hereby agree as follows:

### **Section 1 APPLICABILITY**

These Service Terms and Conditions apply to the services that Motorola will provide to Customer for and support of the 800 MHz public safety radio system in Dakota County.

### **Section 2 DEFINITIONS AND INTERPRETATION**

2.1 "Agreement" means these Service Terms and Conditions; the Service Agreement; Change Orders and Amendments executed by Motorola and the Customer after execution of the original Service Agreement; and any other attachments to any of them, all of which are incorporated herein by this reference. In interpreting this Agreement and resolving any ambiguities, these Service Terms and Conditions take precedence over any provisions of the Service Agreement, and the Service Agreement takes precedence over any attachments, unless the Service Agreement or attachment states otherwise.

2.2 "Effective Date" is the date this Agreement is fully executed by both parties.

2.3 "Equipment" means the equipment that is specified in the attachments or is subsequently added to this Agreement by way of Amendment.

2.4 "Modification" - Consists of a written amendment to this Agreement or Change Order signed by both parties.

2.7 "Services" means those maintenance and support and other services described in this Agreement.

### **Section 3 ACCEPTANCE**

Customer accepts these Service Terms and Conditions and agrees to pay the prices set forth in this Agreement. This Agreement becomes binding upon execution by both Motorola and the Customer. The term of this Agreement begins on the "Start Date" which is January 1, 2026.

### **Section 4 SCOPE OF SERVICES**

4.1. Motorola will provide the Services described in the more detailed statement of work or attached to the Agreement. At Customer's request, Motorola may also provide additional services at Motorola's then- applicable rates for the Services. However, Motorola shall not provide additional services until the parties have executed an Amendment to the Agreement or a Change Order.

4.2. If Motorola is providing Services for Equipment, Motorola parts or parts of equal quality will be used; the Equipment will be serviced at levels set forth in the manufacturer's product manuals; and routine service procedures that are prescribed by Motorola will be followed.

4.3. If Customer purchases from Motorola additional Equipment that becomes part of the same system as the initial Equipment, the additional Equipment may be added to this Agreement by written Amendment to the Agreement and will be billed at the same rate applicable to similar equipment covered under this agreement after the warranty for that additional equipment expires.

4.4. All Equipment must be in good working order on the Start Date or when additional Equipment is added to the Agreement. Upon reasonable request by Motorola, Customer will provide a complete serial and model number list of the Equipment. Customer must promptly notify Motorola in writing when any Equipment is lost, damaged, stolen or taken out of service. Customer's obligation to pay Service fees for this Equipment will terminate at the end of the month in which Motorola receives the written notice, or another date agreed to in writing by the Parties.

4.5. Customer must specifically identify any Equipment that is labeled intrinsically safe for use in hazardous environments.

4.6. If Equipment cannot, in Motorola's reasonable opinion, be properly or economically serviced for any reason, Motorola shall notify Customer and the parties will execute an amendment to the Agreement to either modify the scope of Services related to that Equipment; remove that Equipment from the Agreement; or adjust the price to Service that Equipment.

4.7. Customer must promptly notify Motorola of any Equipment failure. Motorola will respond to Customer's notification in a manner consistent with the level of Service purchased as indicated in the Agreement.

### **Section 5 EXCLUDED SERVICES**

5.1. Service excludes the repair or replacement of Equipment that has become defective or damaged from use in other than the normal, customary, intended, and authorized manner; use not in compliance with applicable industry standards; excessive wear and tear; or accident, liquids, power surges, neglect, acts of God or other force majeure events.

5.2. Unless specifically included in this Agreement, Services exclude items that are consumed in the normal operation of the Equipment, such as batteries or magnetic tapes; upgrading or reprogramming Equipment; accessories, belt clips, battery chargers, custom or special products, modified units, or software; and repair or maintenance of any transmission line, antenna, microwave equipment, tower or tower lighting, duplexer, combiner, or multicoupler. Motorola has no obligations for any transmission medium, such as telephone lines, computer networks, the Internet or the worldwide web, or for Equipment malfunction caused by the transmission medium.

### **Section 6 TIME AND PLACE OF SERVICE**

Service will be provided at the location(s) specified in the Agreement. When Motorola performs Services at Customer's location, Customer will provide Motorola, at no charge, a non-hazardous work environment with adequate shelter, heat, light, and power and with full and free access to the Equipment. Waivers of liability from Motorola or its subcontractors will not be imposed as a site access requirement. Customer will provide all information pertaining to the hardware and software elements of any system with which the Equipment is interfacing so that Motorola may perform its Services. Unless otherwise stated in the Agreement, the hours of Service will be 8:30 a.m. to 4:30 p.m., local time, excluding weekends and holidays. Unless otherwise stated in the Agreement, the price for the Services exclude any charges or expenses associated with unusual access requirements; if these charges or expenses are reasonably incurred by Motorola in rendering the Services, Motorola must first receive Customer's approval. Unless the unusual access requirements are an emergency, the agreement of the parties for the additional cost must be reduced to writing in the form of an amendment before Customer will be liable to reimburse Motorola for those charges and expenses.

### **Section 7 CUSTOMER CONTACT**

Customer will provide Motorola with designated points of contact (list of names and phone numbers) that will be available twenty-four (24) hours per day, seven (7) days per week, and an escalation procedure to enable Customer's personnel to maintain contact, as needed, with Motorola.

### **Section 8 PAYMENT**

Motorola shall invoice the Customer on an annual basis in advance for the Services to be provided. The initial invoice will be for January 1, 2026 through December 31, 2026 then each year thereafter. Customer must pay each invoice in U.S. dollars within thirty (30) days of receipt of the invoice. Minnesota Statutes Section

471.425 shall apply to overdue undisputed invoices and payments to subcontractors.

## **Section 9 WARRANTY**

Motorola warrants that the Services provided under this Agreement will be free of defects in materials and workmanship for a period of ninety (90) days from the date the performance of the Services is completed. In the event of a breach of this warranty, Customer's sole remedy is to require Motorola to re-perform the non-conforming Service or to refund, on a pro-rata basis, the fees paid for the non-conforming Service. MOTOROLA DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

## **Section 10 DEFAULT/TERMINATION**

10.1. If either party commits a material breach of the Agreement, the other party will give to the non-performing party a written and detailed notice of the default. The non-performing party will have thirty (30) days after receipt of the notice to provide a written plan to cure the default that is acceptable to the other party; upon plan approval the non-performing party shall promptly begin implementing the cure plan. If the non-performing party fails to provide or implement the cure plan, then the other party, in addition to any other rights available to it under law, may immediately terminate the Agreement effective upon giving a written notice of termination to the non-performing party. If Motorola is the non-performing party and the Customer terminates the Agreement due to Motorola's failure to implement or complete a cure plan, Motorola shall refund to the Customer a prorated share of annual fee paid by Customer for the Services for the year in which the default occurred.

10.2. Customer may terminate the performance of Services under the Agreement in whole or in part for any reason Customer shall determine is in the interests of the Customer. If Customer elects to terminate the Agreement pursuant to this provision, Customer shall notify Motorola by certified mail, return receipt requested, (30) calendar days prior to the effective date of such termination.

10.3 Any termination of the Agreement will not relieve either party of obligations previously incurred pursuant to the Agreement, including payments which may be due and owing at the time of termination for all services provided in a timely and professional manner consistent with the provisions of the Agreement, but excluding any prorated portion of the annual fee refunded pursuant to Section 10.1. All sums owed by Customer to Motorola will become due and payable upon receipt of an invoice from Motorola following termination of the Agreement. Upon the effective date of termination, Motorola will have no further obligation to provide Services.

## **Section 11 LIMITATION OF LIABILITY**

Except for bodily injury, personal injury or death, or direct damage to tangible property, Motorola's total liability, whether for breach of contract, warranty, negligence, strict liability in tort, or otherwise, will be limited to the direct damages recoverable under law but not to exceed the price of twelve (12) months of Service provided under this Agreement. ALTHOUGH THE PARTIES ACKNOWLEDGE THE POSSIBILITY OF SUCH LOSSES OR DAMAGES, THEY AGREE THAT MOTOROLA WILL NOT BE LIABLE FOR ANY COMMERCIAL LOSS; INCONVENIENCE; LOSS OF USE, TIME, DATA, GOOD WILL, REVENUES, PROFITS OR SAVINGS; OR OTHER SPECIAL, INCIDENTAL, INDIRECT, OR CONSEQUENTIAL DAMAGES IN ANY WAY RELATED TO OR ARISING FROM THE AGREEMENT OR THE PERFORMANCE OF SERVICES BY MOTOROLA PURSUANT TO THE AGREEMENT. This limitation of liability will survive the expiration or termination of this Agreement and applies notwithstanding any contrary provision.

## **Section 12 EXCLUSIVE TERMS AND CONDITIONS**

12.1. The Agreement supersedes all prior and concurrent agreements and understandings between the parties, whether written or oral, related to the Services, and there are no agreements or representations concerning the subject matter of the Agreement except for those expressed herein. The Agreement may not be amended or modified except by a written amendment signed by authorized representatives of both parties.

12.2. Customer agrees to reference the Agreement on any purchase order issued in furtherance of the Agreement, however, an omission of the reference to the Agreement will not affect its applicability.

### **Section 13 PROPRIETARY INFORMATION; CONFIDENTIALITY; INTELLECTUAL PROPERTY RIGHTS**

13.1. Customer will not disclose any material or information identified by Motorola as proprietary and confidential to third parties without Motorola's prior written permission, unless Motorola makes such material or information public or disclosure is required by applicable law, specifically including the Minnesota Government Data Practices Act, Minnesota Statutes Chapter 13. If Customer is required by law to disclose such material or information, Customer will notify Motorola, in writing, prior to such disclosure.

13.2. This Agreement does not grant directly or by implication, estoppel, or otherwise, any ownership right or license under any Motorola patent, copyright, trade secret, or other intellectual property, including any intellectual property created as a result of or related to the Equipment sold or Services performed under this Agreement.

### **Section 14 FCC LICENSES AND OTHER AUTHORIZATIONS**

Customer is solely responsible for obtaining licenses or other authorizations required by the Federal Communications Commission or any other federal, state, or local government agency and for complying with all rules and regulations required by governmental agencies. Neither Motorola nor any of its employees is an agent or representative of Customer in any governmental matters.

### **Section 15 COVENANT NOT TO SOLICIT EMPLOYMENT**

During the term of this Agreement and continuing for a period of two (2) years thereafter, Customer will not solicit the employment of, or recommend employment to any third party of any employee of Motorola or its subcontractors without the prior written authorization of Motorola. This provision applies only to those employees of Motorola or its subcontractors who are responsible for rendering Services under this Agreement. If this provision is found to be overly broad under applicable law, it will be modified as necessary to conform to applicable law.

### **Section 16 MATERIALS, TOOLS AND EQUIPMENT**

All tools, equipment, dies, gauges, models, drawings or other materials paid for or furnished by Motorola for the purpose of this Agreement will be and remain the sole property of Motorola. Customer will safeguard all such property while it is in Customer's custody or control, be liable for any loss or damage to such property that Customer has agreed to safeguard for Motorola, and return it to Motorola upon request. This property will be held by Customer for Motorola's use without charge and may be removed from Customer's premises by Motorola at any time without restriction.

### **Section 17 GENERAL TERMS**

17.1. If any court renders any portion of this Agreement unenforceable, the remaining terms will continue in full force and effect.

17.2. This Agreement and the rights and duties of the parties will be governed and interpreted in accordance with the laws of the State Minnesota. All litigation regarding this Agreement shall be venued in the appropriate state or federal district court in the State of Minnesota.

17.3. Failure to exercise any right will not operate as a waiver of that right, power, or privilege.

17.4. Neither party is liable for delays or lack of performance resulting from any causes that are beyond that party's reasonable control, such as strikes or material shortages.

17.5. Motorola may subcontract any of the work, but subcontracting will not relieve Motorola of its duties under this Agreement. Motorola's subcontractors must comply with the requirements of Sections

17.15 through 17.15.6.

17.6. Except as provided herein, neither Party may assign this Agreement or any of its rights or obligations hereunder without the prior written consent of the other Party, which consent will not be

unreasonably withheld. Any attempted assignment, delegation, or transfer without the necessary consent will be void. Notwithstanding the foregoing, Motorola may assign this Agreement to any of its affiliates or its right to receive payment without the prior consent of Customer. In addition, in the event Motorola separates one or more of its businesses (each a "Separated Business"), whether by way of a sale, establishment of a joint venture, spin-off or otherwise (each a "Separation Event"), Motorola may, without the prior written consent of the other Party and at no additional cost to Motorola, assign this Agreement such that it will continue to benefit the Separated Business and its affiliates (and Motorola and its affiliates, to the extent applicable) following the Separation Event.

17.9. Motorola agrees to indemnify, defend and hold harmless the Customer, its agents, employees, and officials from and against all liabilities, losses, and damages which may accrue against them to the extent that such liabilities, losses, and direct damages to tangible property are caused by Motorola's negligence, recklessness, intentional tortious act or omission or that of its employees, subcontractors, or agents in connection with the performance of the Agreement. Notwithstanding the above, neither party shall be liable for claims for commercial losses, special, incidental, nor consequential damages concerning third party claims, which are brought against Customer and are covered by this indemnity provision, any damages actually paid by Customer to such third parties shall be deemed to be direct and not consequential damages. Motorola will not be obligated to indemnify, defend, or hold the Customer harmless from the negligence of Customer, its agents, employees, and officials. If a court determines in a final adjudication that both Motorola and Customer are jointly liable, Motorola and Customer shall each pay their respective attorney's fees, costs of litigation and percentage liabilities.

17.10 Motorola and Customer each agree to comply with all Minnesota and Federal laws and regulations that are applicable to this Agreement.

17.11 Motorola shall not discriminate against any employee or applicant for employment because of race, color, creed, religion, sex, national origin, age (except as provided by law), marital status, political affiliation, status with regard to public assistance, sexual orientation, or disability. Motorola shall take affirmative action to ensure that employees as well as applicants for employment are treated without regard to their race, color, creed, religion, sex, national origin, age (except as provided by law), marital status, political affiliation, status with regard to public assistance, sexual orientation, or disability. Motorola, its officers, employees, Subcontractors, or any other agent of Motorola in performance of this Agreement shall act in an independent capacity and not as an officer or employee of Customer. This Agreement shall not be construed as a partnership or joint venture between Motorola or any Subcontractor and Customer.

17.12 Notices authorized or required under this Agreement must be in writing and sent to the below address:

Jenny Groskopf  
Director  
Risk & Emergency  
Management  
1590 Highway 55  
Hastings, Minnesota  
55033  
(651) 438-4532  
[Jenny.Groskopf@co.dakota.mn.us](mailto:Jenny.Groskopf@co.dakota.mn.us)

Motorola Solutions, Inc.  
Attn: Ted Hutson  
Customer Support Manager  
2000 Progress Parkway  
Schaumburg, IL 60196  
(847) 281-6746

With a copy to:  
Civil Division  
Dakota County Attorney's  
Office 1560 Highway 55  
Hastings, MN 55033  
(651) 438-4564

With a copy to:  
Legal Department  
Motorola Solutions,  
Inc. 500 West Monroe  
St, Chicago, Illinois  
60661  
(312) 728-0218

17.13 As applicable to Motorola's performance under this Agreement, Motorola shall comply with the provisions of the Minnesota prevailing wage law, Minnesota Statutes sections 177.21 through 177.44, as well as Customer's policy as follows: All Contractors and subcontractors shall conform to the labor laws of the State of Minnesota, and all other laws, ordinances, and legal requirements affecting the work in Dakota County and Minnesota.

17.14 Motorola shall make all reasonable efforts to ensure that Motorola's employees, officers and subcontractors do not engage in violence while performing under this contract. Violence, is defined as words and actions that hurt or attempt to threaten or hurt people; it is any action involving the use of physical force, harassment, intimidation, disrespect, or misuse of power and authority, where the impact is to cause pain, fear or injury.

17.15 Motorola shall purchase and maintain such insurance as will protect Motorola from claims which may arise out of, or result from, Motorola's performance under this Agreement. Motorola shall secure the following coverages. Certificates of Insurance shall be issued evidencing such coverage to the County throughout the term of this Agreement.

17.15.1 Commercial General Liability Insurance  
\$2,000,000 per occurrence including Independent Contractors  
and products/completed operations total limit

\$2,000,000 general aggregate  
\$2,000,000 personal injury and advertising liability

All policies shall be written on an occurrence basis using ISO form CG 00 01 and the Commercial General Liability policy shall be primary.

Commercial General Liability insurance shall provide that Dakota County, its officials, employees, and agents, are included as additional insured on a primary basis with respect to the operations of Motorola, using ISO endorsement form CG 20 10 .

17.15.2 Automobile Insurance  
Coverage shall be provided for hired, non-owned and owned auto.

limits: \$2,000,000 per accident, combined single limit.

17.15.3 Workers' Compensation and Employer's Liability  
Workers' Compensation as required by Minnesota Statutes

Employer's Liability limits:  
\$500,000 per accident/\$500,000 per disease/\$500,000 per disease policy limit

17.15.4 Network Security and Privacy Liability  
Network security and privacy liability insurance, including first-party costs for Contractor, for a breach that compromises data obtained while providing services under this Agreement. This insurance should to cover claims which may arise from



failure of Contractor's security resulting in computer attacks, unauthorized access, disclosure of not public data including confidential or private information, transmission of a computer virus or denial of service. The required limit shall not be \$2,000,000 per claim with a \$4,000,000 annual aggregate limit. Claims-made coverage is acceptable.. The policy shall provide an extended reporting period of thirty-six (36) months from the expiration date of the policy, if the policy if not renewed.

- 17.15.5. Motorola's Commercial General Liability, Automobile Liability and Workers Compensation policies shall provide the County with a thirty (30) days prior written notice of cancellation.

- 17.15.6        The above sub-paragraphs establish insurance requirements.
- 17.15.7        Motorola shall not commence work until Motorola has obtained the required insurance and filed an acceptable Certificate of Insurance with the County.
- 17.15.8        Nothing in this Agreement shall constitute a waiver by the County of any statutory or common law immunities, limits, or exceptions on liability.

**COUNTY OF DAKOTA  
STATE OF MINNESOTA**

Approved as to form.

\_\_\_\_\_  
Assistant County Attorney

Date: \_\_\_\_\_

Date: \_\_\_\_\_

By: \_\_\_\_\_  
Dakota County  
Deputy County Manager

Date: \_\_\_\_\_  
Clerk of the Board

ATTEST By: \_\_\_\_\_

Title: \_\_\_\_\_

**MOTOROLA SOLUTIONS, INC.**

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_



## DakotaCountySheriffDept Budgetary Quote

Date: 11/22/2025

Contract: USC000020664

Customer# 1036397108

Contract Start: 1/1/2026

### Scope:

Essential Plus Package w/ Monitoring:

- Technical Support (24x7x365) - (ARMER state covered)
- Security Update Service - (ARMER state covered)
- Infrastructure Repair
- Dispatch and Onsite Support - Standard
- Preventive Maintenance
- Network Monitoring

System Consists of:	
1	Prime sites
9	Remote Sites
160	GTR Stations

IB System Number	Description
SZ740F10301	SZ740F10301 EMPIRE-REMOTE
SZ740F10302	SZ740F10302 ARBOR POINT-REMOTE
SZ740F10303	SZ740F10303 BUCK HILL-REMOTE
SZ740F10304	SZ740F10304 FAIRFIELD-REMOTE
SZ740F10305	SZ740F10305 HASTINGS DAKOTA
SZ740F10306	SZ740F10306 MARIE-REMOTE
SZ740F10307	SZ740F10307 PALOMINO-REMOTE
SZ740F10308	SZ740F10308 SPERRY TANK-REMOTE
SZ740F10309	SZ740F10309 VERIZON-REMOTE
SZ740F10310	SZ740F10310-Welch

CSM: Ted Hutson

AE: Kelly Ordorff

### Summary:

Dakota County - Sheriff FNE RF 3 year contract USC000020664 ESS+ w/Out Adv Exchange				
Fiscal Year	2026	2027	2028	3 year Total
<b>Support and Maintain</b>				
<b>Essential Plus package**</b>				
Dispatch Service				
Network Subsystem Monitoring				
Onsite - Regular				
Preventive Maintenance Level 1				
Infrastructure Repair				
Advanced Exchange (REMOVED)				
<b>**Technical Support, SUS, SUAll covered by the State Contract USC000007373</b>				
<b>Total</b>	<b>\$157,653.00</b>	<b>\$177,359.70</b>	<b>\$199,529.70</b>	<b>\$534,542.40</b>

\* Budgetary pricing pending Motorola Service Management approval and is **subject to change**.

\* 3 Year term (2026 - 2028)

\* 2026 (yr1) has 7% price increase with higher ~ 12 % increases in years 2 and 3 to account for pricing alignments

\* NO Advanced Exchange / Replacement (Removed for cost savings)

\* Assumes ARMER State contract will continue to cover Tech Support and SUS

## Section 1

# ASTRO 25 Essential Plus Statement of Work

## 1.1 Overview

Motorola Solutions' ASTRO® 25 Essential Plus Services (Essential Plus Services) provide an integrated and comprehensive sustainment program for fixed end network infrastructure equipment located at the network core, RF sites, and dispatch sites. Essential Services do not include maintenance for mobile devices, portable devices, or network backhaul equipment.

Essential Services consist of the following elements:

- Remote Technical Support – provided by ARMER USC000007373
- Network Hardware Repair.
- Security Update Service – provided by ARMER USC000007373
- On-site Infrastructure Response.
- Annual Preventative Maintenance.
- Network Event Monitoring.

Each of these elements is summarized below and expanded upon in Section [Essential Plus Services Detailed Description](#). In the event of a conflict between the descriptions below and an individual subsection of Section [Essential Plus Services Detailed Description](#), the individual subsection prevails.

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 customer (Dakota County).

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



### *Remote Technical Support – provided by ARMER USC000007373*

Motorola Solutions will provide telephone consultation with specialists skilled at diagnosing and swiftly resolving infrastructure operational technical issues that require a high level of ASTRO 25 network experience and troubleshooting capabilities.

### *Network Hardware Repair*

Motorola Solutions will repair Motorola Solutions-manufactured infrastructure equipment and select third-party manufactured infrastructure equipment supplied by Motorola Solutions. Motorola Solutions coordinates the equipment repair logistics process.

### *Security Update Service – provided by ARMER USC000007373*

Motorola Solutions will pre-test third-party security updates to verify they are compatible with the ASTRO 25 network. Once tested, Motorola Solutions posts the updates to a secured extranet website, along with any recommended configuration changes, warnings, or workarounds.

### *On-site Infrastructure Response*

When needed to resolve equipment malfunctions, Motorola Solutions will dispatch qualified local technicians to the Customer's location to diagnose and restore the communications network. Technicians will perform diagnostics on impacted hardware and replace defective components. The service technician's response time will be based on pre-defined incident priority levels.

### *Annual Preventive Maintenance*

Qualified field service technicians will perform regularly scheduled operational testing and alignment of infrastructure and network components to verify those components comply with the original manufacturer's specifications.

### *Network Event Monitoring*

Real-time, continuous ASTRO 25 radio communications network monitoring and event management. Using sophisticated tools for remote monitoring and event characterization, Motorola will assess events, determine the appropriate response, and initiate that response. Possible responses include remotely addressing the issue, escalation to product technical support groups, and dispatch of designated field technical resources.



## 1.2 Motorola Solutions Service Delivery Ecosystem

Essential Plus Services are delivered through a tailored combination of local field service personnel, centralized teams equipped with a sophisticated service delivery platform, product repair depots, and Customer Hub. These service entities will collaborate to swiftly analyze issues, accurately diagnose root causes, and promptly resolve issues to restore the Customer's network to normal operations.

### 1.2.1 Centralized Managed Support Operations

The cornerstone of Motorola Solutions' support process is the Centralized Managed Support Operations (CMSO) organization, which includes the Service Desk and technical support teams. The CMSO is staffed 24/7/365 by experienced personnel, including service desk specialists, security analysts, and operations managers.

The Service Desk provides a single point of contact for all service related items, including communications between the Customer, Motorola Solutions, and third-party subcontractors. The Service Desk processes service requests, service incidents, change requests, and dispatching, and communicates with stakeholders in accordance with pre-defined response times.

All incoming transactions through the Service Desk are recorded, tracked, and updated through the Motorola Solutions Customer Relationship Management (CRM) system. The Service Desk also documents Customer inquiries, requests, concerns, and related tickets.

The CMSO coordinates with the field service organization that will serve the Customer locally.

### 1.2.2 Field Service

Motorola Solutions authorized and qualified field service technicians perform on-site infrastructure response, field repair, and preventive maintenance tasks. These technicians are integrated with the Service Desk and with technical support teams and product engineering as required to resolve repair and maintenance requests.

### 1.2.3 Customer Support Manager

A Motorola Solutions Customer Support Manager (CSM) will be the Customer's key point of contact for defining and administering services. The CSM's initial responsibility is to create the Customer Support Plan (CSP) in collaboration with the Customer.

The CSP functions as an operating document that personalizes the services described in this document. The CSP contains Customer-specific information, such as site names, site access directions, key contact persons, incident handling instructions, and escalation paths for special issues. The CSP also defines the division of responsibilities between the Customer and Motorola Solutions so response protocols are pre-defined and well understood when the need arises.



The CSP governs how the services will be performed and will be automatically integrated into this Statement of Work by this reference. The CSM and Customer will review and amend the CSP on a mutually agreed cadence so the CSP remains current and effective in governing the Essential Services.

### 1.2.4 Repair Depot

The Motorola Solutions Repair Depot provides the Customer with a central repair location, eliminating the need to send network equipment to multiple vendor locations for repair. All products sent to the Depot are tracked throughout the repair process, from inbound shipment to return, through a case management system that enables Customer representatives to see repair status.

### 1.2.5 Customer Hub

Supplementing the CSM and the Service Desk as the Customer points of contact, Customer Hub is a web-based platform that provides network maintenance and operations information. The portal is accessed from a desktop, laptop, tablet, or smartphone web browser. The information available includes:

- **Remote Technical Support:** Manage incidents and view self-service reports. Observe incident details by incident priority level, and track the progress of issue resolution.
- **Network Hardware Repair:** Track return material authorizations (RMA) shipped to Motorola Solutions' repair depot and eliminate the need to call for status updates. In certain countries, customers will also have the ability to create new RMA requests online.
- **Security Update Service:** View available security updates. Access available security update downloads.
- **On-site Infrastructure Response:** Manage incidents and view self-service reports. Observe incident details by incident priority level, and track the progress of issue resolution.
- **Annual Preventive Maintenance:** View incident status and details of each annual change request for preventive maintenance, including completed checklist information for the incident.
- **Orders and Contract Information:** View available information regarding orders, service contracts, and service coverage details.
- **Network Event Monitoring (Optional):** Manage incidents and view self-service reports. Observe incident details by incident priority level, and track the progress of issue resolution.

The data presented in Customer Hub is provided to support the services described in the following sections, which define the terms of any service delivery commitments associated with this data.

### 1.2.6 Connectivity Specifications

A monitored access link is provided with sufficient bandwidth to support the optional Network Event Monitoring and Remote Security Update Services, if included as part of the Essential Plus offering.



## 1.3 Essential Plus Services Detailed Description

Due to the interdependence between deliverables within the detailed sections, any changes to or any cancellation of any individual section may require a scope review and price revision.

### 1.3.1 Remote Technical Support – provided by ARMER USC000007373

Motorola Solutions' Remote Technical Support service provides telephone consultation for technical issues that require a high level of ASTRO 25 network knowledge and troubleshooting capabilities. Remote Technical Support is delivered through the Motorola Solutions CMSO organization by a staff of technical support specialists skilled in diagnosis and swift resolution of infrastructure performance and operational issues.

Motorola Solutions applies leading industry standards in recording, monitoring, escalating, and reporting for technical support calls from its contracted customers to provide the support needed to maintain mission-critical systems.

#### 1.3.1.1 Description of Service

The CMSO organization's primary goal is Customer Issue Resolution (CIR), providing incident restoration and service request fulfillment for Motorola Solutions' currently supported infrastructure. This team of highly skilled, knowledgeable, and experienced specialists is an integral part of the support and technical issue resolution process. The CMSO supports the Customer remotely using a variety of tools, including fault diagnostics tools, simulation networks, and fault database search engines.

Calls requiring incidents or service requests will be logged in Motorola Solutions' CRM system, and Motorola Solutions will track the progress of each incident from initial capture to resolution. This helps ensure that technical issues are prioritized, updated, tracked, and escalated as necessary, until resolution. Motorola Solutions will advise and inform Customer of incident resolution progress and tasks that require further investigation and assistance from the Customer's technical resources.

The CMSO Operations Center classifies and responds to each technical support request in accordance with Section [Priority Level Definitions and Response Times](#).

This service requires the Customer to provide a suitably trained technical resource that delivers maintenance and support to the Customer's system, and who is familiar with the operation of that system. Motorola Solutions provides technical consultants to support the local resource in the timely closure of infrastructure, performance, and operational issues.

#### 1.3.1.2 Scope

The CMSO Service Desk is available via telephone 24/7/365 to receive and log requests for technical support. Remote Technical Support service is provided in accordance with Section [Priority Level Definitions and Response Times](#).





### 1.3.1.3 Inclusions

Remote Technical Support service will be delivered for Motorola Solutions-provided infrastructure, including integrated third-party products.

### 1.3.1.4 Motorola Solutions Responsibilities

- Maintain availability of the Motorola Solutions CMSO Service Desk via telephone (800-MSI-HELP) 24/7/365 to receive, log, and classify Customer requests for support.
- Respond to incidents and technical service requests in accordance with Section [Priority Level 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 Customer 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 Customer of an alternative course of action.

### 1.3.1.5 Limitations and Exclusions

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

- Customer 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.

### 1.3.1.6 Customer Responsibilities

- Prior to contract start date, provide Motorola Solutions with pre-defined information necessary to complete CSP.
- Submit timely changes in any information supplied in the CSP to the 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 Customer, 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 Customer'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 addressed in accordance with Section [Priority Level Definitions and Response Times](#).
- Cooperate with Motorola Solutions, and perform all acts that are reasonable or necessary to enable Motorola Solutions to provide Remote Technical Support.
- In the event that Motorola Solutions agrees in writing to provide supplemental Remote Technical Support to third-party elements provided by the Customer, the Customer agrees to obtain all third-party consents or licenses required to enable Motorola Solutions to provide the service.

## 1.3.2 Network Hardware Repair

Motorola Solutions will provide hardware repair for Motorola Solutions and select third-party infrastructure equipment supplied by Motorola Solutions. A Motorola Solutions authorized repair depot manages and performs the repair of Motorola Solutions supplied equipment, and coordinates equipment repair logistics.

### 1.3.2.1 Description of Service

Infrastructure components are repaired at Motorola Solutions-authorized Infrastructure Depot Operations (IDO). At Motorola Solutions' discretion, select third-party infrastructure may be sent to the original equipment manufacturer or third-party vendor for repair.

Network Hardware Repair is also known as Infrastructure Repair.

### 1.3.2.2 Scope

Repair authorizations are obtained by contacting the CMSO organization Service Desk, which is available 24/7/365. Repair authorizations can also be obtained by contacting the CSM.

### 1.3.2.3 Inclusions

This service is available on Motorola Solutions-provided infrastructure components, including integrated third-party products. Motorola Solutions will make a commercially reasonable effort to repair Motorola Solutions manufactured infrastructure products after product cancellation. The post-cancellation support period of the product will be noted in the product's end-of-life (EOL) notification.

### 1.3.2.4 Motorola Solutions Responsibilities

- Provide the Customer access to the CMSO Service Desk, operational 24/7, to request repair service.
- Provide repair return authorization numbers when requested by the Customer.



- Receive malfunctioning infrastructure components from the Customer and document its arrival, repair, and return.
- Conduct the following services for Motorola Solutions infrastructure:
  - Perform an operational check on infrastructure components to determine the nature of the problem.
  - Replace malfunctioning components.
  - Verify that Motorola Solutions infrastructure components are returned to applicable Motorola Solutions factory specifications.
  - Perform a box unit test on serviced infrastructure components.
  - Perform a system test on select infrastructure components.
- Conduct the following services for select third-party infrastructure:
  - When applicable, perform pre-diagnostic and repair services to confirm infrastructure component malfunctions and prevent sending infrastructure components with No Trouble Found (NTF) to third-party vendor for repair.
  - When applicable, ship malfunctioning infrastructure components to the original equipment manufacturer or third-party vendor for repair service.
  - Track infrastructure components sent to the original equipment manufacturer or third-party vendor for service.
  - When applicable, perform a post-test after repair by original equipment manufacturer or third-party vendor to confirm malfunctioning infrastructure components have been repaired and function properly in a Motorola Solutions system configuration.
- Reprogram repaired infrastructure components to original operating parameters based on software and firmware provided by the Customer, as required in Section [Customer Responsibilities](#). If the Customer's software version and configuration are not provided, shipping will be delayed. If the repair depot determines that infrastructure components are malfunctioning due to a software defect, the repair depot reserves the right to reload these components with a different but equivalent software version.
- Properly package repaired infrastructure components.
- Ship repaired infrastructure components to Customer-specified address during normal operating hours of Monday through Friday from 7:00 a.m. to 7:00 p.m. Central Standard Time (CST), excluding holidays. Infrastructure component will be sent using two-day air shipping unless the Customer requests otherwise. Motorola Solutions will pay for shipping unless the Customer requests shipments outside of the above mentioned standard business hours or carrier programs, such as next flight out (NFO). In such cases, the Customer will be responsible for paying shipping and handling charges.



### 1.3.2.5 Limitations and Exclusions

Motorola Solutions may return infrastructure equipment that is no longer supported by Motorola Solutions, the original equipment manufacturer, or a third-party vendor without repairing or replacing it. The following items are excluded from this service:

- All Motorola Solutions infrastructure components over the post-cancellation support period.
- All third-party infrastructure components over the post-cancellation support period.
- All broadband infrastructure components over the post-cancellation support period.
- Physically damaged infrastructure components.
- Third-party equipment not shipped by Motorola Solutions.
- Consumable items including, but not limited to, batteries, connectors, cables, toner or ink cartridges, tower lighting, laptop computers, monitors, keyboards, and mouse.
- Video retrieval from digital in-car video equipment.
- RF infrastructure and backhaul components, including but not limited to, antennas, transmission lines, antenna dehydrators, microwave, line boosters, amplifiers (such as tower top amplifiers and bi-directional amplifiers), logging recorders, data talker wireless transmitters, short haul modems, combiners, multicouplers, duplexers, shelters, shelter HVAC, generators, UPSs, dropship non-standard items and test equipment.
- Racks, furniture, and cabinets.
- Non-standard configurations, customer-modified infrastructure, and certain third party infrastructure.
- Firmware or software upgrades.

### 1.3.2.6 Customer Responsibilities

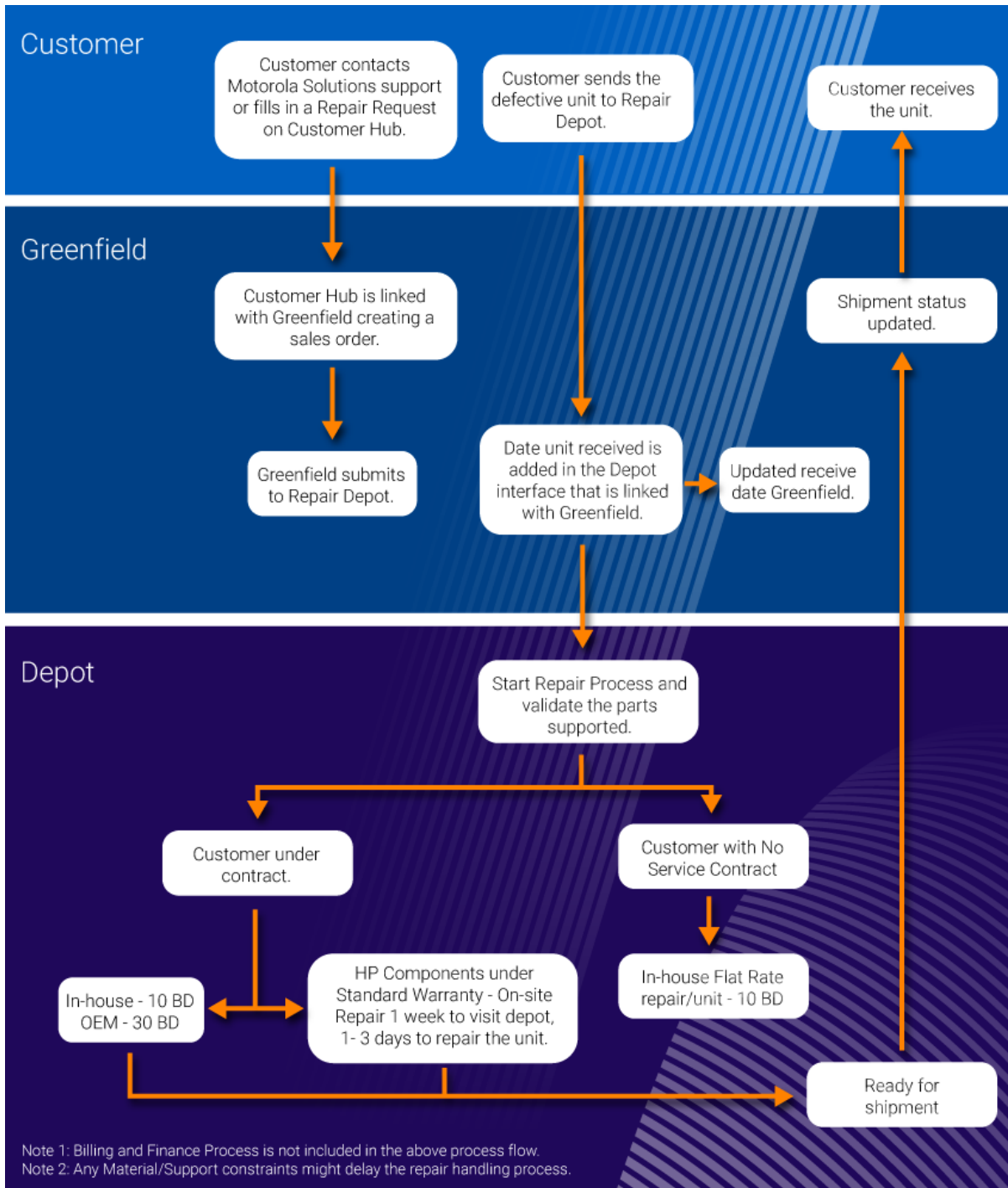
- Contact or instruct servicer to contact the Motorola Solutions CMSO organization, and request a return authorization number prior to shipping malfunctioning infrastructure components.
- Provide model description, model number, serial number, type of system, software and firmware version, symptom of problem, and address of site location for spare infrastructure components.
- Indicate if Motorola Solutions or third-party infrastructure components being sent in for service were subjected to physical damage or lightning damage.
- Follow Motorola Solutions instructions regarding including or removing firmware and software applications on infrastructure components being sent in for service.



- In the event that the Customer requires repair of equipment that is not contracted under this service at the time of request, the Customer acknowledges that charges may apply to cover shipping, labor, and parts. Motorola Solutions and the Customer will collaborate to agree on payment vehicle that most efficiently facilitates the work, commensurate with the level of urgency that is needed to complete the repair.
- Properly package and ship the malfunctioning component, at the Customer's expense. The Customer is responsible for properly packaging the malfunctioning infrastructure component to ensure it is not damaged in-transit and arrives in repairable condition.
  - Clearly print the return authorization number on the outside of the packaging.
- Maintain versions and configurations for software, applications, and firmware to be installed on repaired equipment.
- Provide Motorola Solutions with proper software and firmware information to reprogram equipment after repair, unless current software has caused this malfunction.
- Cooperate with Motorola Solutions and perform reasonable or necessary acts to enable Motorola Solutions to provide hardware repair services to the Customer.
- At the Customer's cost, obtain all third-party consents or licenses required to enable Motorola Solutions to provide the service.



### 1.3.2.7 Repair Process



**Figure 1-1: Repair Decision Process**



### 1.3.3 Security Update Service – provided by ARMER USC000007373

Motorola Solutions' ASTRO 25 Security Update Service (SUS) provides pretested security updates, minimizing cyber risk and software conflicts. These security updates contain operating system security patches and antivirus definitions that have been validated for compatibility with ASTRO 25 systems. Security update delivery is determined by the options included as part of this service. Section [Inclusions](#) indicates if options are included as part of this service.

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

#### 1.3.3.1 Description of Service

Motorola Solutions uses a dedicated information assurance lab to test and validate security updates. Motorola Solutions deploys and tests security updates in the lab to check for and prevent potential service degradation.

Motorola Solutions releases tested, compatible security updates for download and installation. Once security updates are verified by the SUS team, Motorola Solutions uploads them to a secure website and sends a release notification email to the Customer contact to inform them that the security update release is available. If there are any recommended configuration changes, warnings, or workarounds, the SUS team will provide documentation with the security updates on the secure website.

With the base service, the Customer will be responsible for downloading security updates, installing them on applicable components, and rebooting updated components. Additional options are available for Motorola Solutions to deploy security updates, reboot servers and workstations, or both.

##### 1.3.3.1.1 On-site Delivery

If On-site Delivery is included with SUS, Motorola Solutions provides trained technician(s) to install security updates at the Customer's location. The technician downloads and installs available security updates and coordinates any subsequent server and workstation reboots. On-Site delivery is not available for the optional transport network updates for routers, firewalls and switches. If on-site transport network updates are required please discuss this with your Motorola Solutions Customer Support Manager.

##### 1.3.3.1.2 Reboot Support

If Reboot Support is included with SUS, Motorola Solutions provides technician support to reboot impacted Microsoft Windows servers and workstations after operating system security patches have been installed.



### 1.3.3.2 Scope

SUS includes pretested security updates for the software listed in [Table 1-2: Update Cadence](#). This table also describes the release cadence for security updates.

**Table 1-2: Update Cadence**

Software	Update Release Cadence
Antivirus Definition Files	Weekly
Microsoft Windows	Monthly
Microsoft SQL Server	Quarterly
Microsoft Windows third party (i.e. Adobe Reader)	Monthly
Red Hat Linux (RHEL)	Quarterly
VMWare ESXi Hypervisor (A2024 or earlier only)	Quarterly
PostgreSQL	Quarterly
Antivirus Software Patch(es)	Quarterly
Server Firmware Updates	Quarterly
QNAP Firmware	Quarterly
Juniper Firewall Updates	Bi-Annually*
Juniper Router Updates	Bi-annually*
Fortinet Firewall Updates	As required - no regular cadence*
Juniper Switch Updates	As required - no regular cadence*
Aruba Switch Updates	As required - no regular cadence*

*\*To receive the updates for ASTRO Transport Network devices, the Customer is required to "Opt-In". Please see Section 1.4 below.*

### 1.3.3.3 Transport Network Updates

Updates to the transport network devices, which includes routers, firewalls and switches, will be issued up to twice a year (subject to applicability of vendor updates). See Table 1.

These updates require customer specific network device configurations which can only be prepared by Motorola Solutions.

#### 1.3.3.3.1 Opt-In

To receive configuration files for updating their transport network devices, customers must actively choose to "Opt-In."





If customers choose to perform these updates themselves, it will involve a certain level of interaction and shared responsibilities between the customer and Motorola Solutions.

The customer's decision and requirements for opting in are documented during the initial service onboarding process.

#### 1.3.3.3.2 *Configuration Files*

When Customers “Opt-In”, their assigned Motorola Solutions engineer will provide any network configuration file updates needed for Customers to self-deploy the new device software release.

#### 1.3.3.3.3 *Deployment Options*

The download and installation of the transport network updates are the responsibility of the Customer, with remote support from Motorola to provide configuration file updates.

An alternative option available, should the Customer require Motorola Solutions to deploy the updates, is an onsite deployment service, which is quoted separately. Please discuss this with your CSM.

Note that transport network updates are not included in the ASTRO 25 Remote Security Update Service.

#### 1.3.3.3.4 *Change Management*

Customers are required to notify Motorola Solutions prior to deploying the updates (by calling the service desk). Your assigned MSI engineer who is supporting you with configuration changes will also raise/close the necessary Change Requests using the Motorola Solutions Change Management process.

#### 1.3.3.4 **Inclusions**

Supported ASTRO 25 core types and security update delivery methods are included in [Table 1-3: SUS Package](#). This table indicates if Motorola Solutions will provide any SUS optional services to the Customer. SUS supports the current Motorola Solutions ASTRO 25 system release and aligns with the established [Software Support Policy \(SwSP\)](#).

Motorola Solutions reserves the right to determine, which releases are supported as business conditions dictate. Additional charges may apply in the event of supporting older releases. Contact Motorola Solutions’ assigned CSM for the latest supported releases.

**Table 1-3: SUS Package**

Service	ASTRO 25 Core Type	Included
Security Update Service Customer Self-installed	Standard Core	X



Service	ASTRO 25 Core Type	Included
Security Update Service Customer Self-installed (Transport Network Updates)*	Standard Core Simplified Core	
Security Update Service with Reboot Support	Standard Core Simplified Core	
Security Update Service with On-site Delivery	Standard Core Simplified Core	

*\*To receive the updates for ASTRO Transport Network devices, the Customer is required to “Opt-In”. Please see Section 1.4.*

Responsibilities for downloading and installing security updates and rebooting applicable hardware are detailed in [Section Installation and Reboot Responsibilities](#).

#### 1.3.3.5 Motorola Solutions Responsibilities

- On the release schedule in [Section Scope](#), review relevant and appropriate security patches released by Original Equipment Manufacturer (OEM) vendors.
- Release tested and verified security patches to Motorola Solutions’ secure website.
- Publish documentation for installation, recommended configuration changes, any identified issue(s), and remediation instructions for each security update release.
- Send notifications by email when security updates are available to download from the secure website.
- For Customers who opt in to receive Transport Network Device Updates (Routers, Firewalls, Switches), Motorola Solutions shall:
  - Coordinate with the Customer to determine when Transport Network Configuration Tool (TNCT) files need to be updated.
  - Coordinate the retrieval of the current TNCT configurations from the Customer’s system.
  - Update TNCT files (where applicable) to ensure compatibility with updated device software.
  - Coordinate the deposit of the updated configurations to the Customer’s system (prior to the Customer’s planned update deployment activity).

#### 1.3.3.6 Limitations and Exclusions

- Systems with non-standard configurations that have not been certified by Motorola Solutions’ Systems Integration and Test (SIT) team are specifically excluded from this service, unless otherwise agreed in writing by Motorola Solutions.
- Interim or unplanned releases outside the supported release cadence.



- Service does not include pretested intrusion detection system (IDS) signature updates for IDS solutions. However, select vendor IDS signature updates are made available via the secure website. The available vendors may change pursuant to Motorola Solutions' business decisions. The Customer is responsible for complying with all IDS licensing requirements and fees, if any.
- This service does not include releases for Motorola Solutions products that are not ASTRO 25 Standard and Simplified Core radio network infrastructure equipment. The following are examples of excluded products: WAVE PTX, Critical Connect, and VESTA solutions.
- K Core ASTRO 25 systems are excluded.
- Motorola Solutions product updates are not included in these services.
- Shared network infrastructure firmware, such as transport and firewall firmware, are not included in these services, unless the Customer has opted-in to deploy them and receive configuration support.
- Workstation firmware, BIOS and drivers are not included in these services.
- Motorola Solutions does not represent that it will identify, fully recognize, discover, or resolve all security events or threats, system vulnerabilities, malicious codes or data, backdoors, or other system threats or incompatibilities as part of the service, or that the agreed upon cadence/time of delivery will be sufficient to identify, mitigate or prevent any cyber incident.

#### 1.3.3.7 Customer Responsibilities

- Provide Motorola Solutions with predefined information necessary to complete a Customer Support Plan (CSP) prior to the Agreement start date.
- Provide timely updates on changes of information supplied in the CSP to Motorola Solutions' assigned CSM.
- Update Motorola Solutions with any changes in contact information, specifically for authorized users of Motorola Solutions' secure website.
- Provide means for accessing Motorola Solutions' secure website to collect the pretested files.
- Download and apply only to the Customer's system as applicable, based on the Customer Agreement and the scope of the purchased service. Distribution to any other system or user other than the system/user contemplated by the Customer Agreement is not permitted.
- Implement Motorola Technical Notices (MTN) to keep the system current and patchable.
- Adhere closely to the Motorola Solutions CMSO troubleshooting guidelines provided upon system acquisition. Failure to follow CMSO guidelines may cause the Customer and Motorola Solutions unnecessary or overly burdensome remediation efforts. In such cases, Motorola Solutions reserves the right to charge an additional fee for the remediation effort.
- Upgrade system to a supported system release when needed to continue service. Contact Motorola Solutions' assigned CSM for the latest supported releases.



- For Customers who opt in to receive Transport Network Device Updates (Routers, Firewalls, Switches), the Customer shall:
  - Provide required information regarding the Customer's planned deployment schedule, including proposed update period.
  - Coordinate with Motorola Solutions engineers to provide current network configuration files.
  - Coordinate with Motorola Solutions to upload replacement configuration files (where applicable).
  - Provide the information necessary for to raise a Change Request to cover the period of the transport network update activity prior to deployment of updates.
  - Notify Motorola Solutions when updates are completed.
- Comply with the terms of applicable license agreements between the Customer and non-Motorola Solutions software copyright owners.

### 1.3.3.8 Installation and Reboot Responsibilities

Installation and Reboot responsibilities are determined by the specific SUS package being purchased. [Table 1-4: Installation and Reboot Responsibilities Matrix](#) contains the breakdown of responsibilities. Section [Inclusions](#) indicates which services are included.

Microsoft Windows servers and workstations often need to be rebooted before security updates take full effect and mitigate vulnerabilities.

**Table 1-4: Installation and Reboot Responsibilities Matrix**

SUS Package	Motorola Solutions Responsibilities	Customer Responsibilities
Security Update Service Customer Self-installed		<ul style="list-style-type: none"> <li>● Deploy pretested files to the Customer's system as instructed in the "Read Me" text provided on Motorola Solutions' secure website.</li> <li>● When a security update requires a reboot, reboot servers and workstations after security updates are installed.</li> </ul>



SUS Package	Motorola Solutions Responsibilities	Customer Responsibilities
Customer Self-installed with Transport Network Opt-In	<ul style="list-style-type: none"> <li>Update TNCT configurations for compatibility with device updates</li> <li>Raise Change requests prior to deployment of updates</li> <li>Close Change requests on completion of updates</li> </ul>	<ul style="list-style-type: none"> <li>Deploy files to the Customer's system as instructed in the installation procedures provided on Motorola Solutions' secure website.</li> <li>Deploy updates and restart devices (where applicable)</li> </ul>
Security Update Service with On-site Delivery	<ul style="list-style-type: none"> <li>Dispatch a technician to deploy pretested files to the Customer's system.</li> <li>When a security update requires a reboot, reboot servers and workstations after security updates are installed.</li> </ul>	<ul style="list-style-type: none"> <li>Acknowledge Motorola Solutions will reboot servers and workstations, and agree to timing.</li> </ul>
Security Update Service with Reboot Support	<ul style="list-style-type: none"> <li>When a security update requires a reboot, dispatch a technician to reboot servers and workstations after security updates are installed.</li> </ul>	<ul style="list-style-type: none"> <li>Deploy pretested files to the Customer's system as instructed in the "Read Me" text provided on Motorola Solutions' secure website.</li> </ul>

### 1.3.3.9 Disclaimer

This service tests OEM security updates. Delivering security updates for specific software depends on OEM support for that software. If an OEM removes support (e.g. end-of-life) from deployed software, Motorola Solutions may work with the OEM to reduce the impact, but may remove support for the affected software from this service without notice.

OEMs determine security update schedules, supportability, or release availability without consultation from Motorola Solutions. Motorola Solutions will obtain and test security updates when they are made available, and incorporate those security updates into the next appropriate release.

All security updates are important. This service is intended to balance the security and compatibility of tested updates with agreed upon time/cadence of delivery. Customer assumes the risk of this inherent tradeoff.

Motorola Solutions disclaims any warranty with respect to pretested database security updates, hypervisor patches, operating system software patches, intrusion detection sensor signature files, or other third-party files, express or implied. Further, Motorola Solutions disclaims any warranty concerning non-Motorola Solutions software and does not guarantee Customers' systems will be error-free or immune to security breaches as a result of these services.



Additionally, Customers who opt-in to receive configuration files for updating their transport network devices, and that elect to self-install those updates, understand and agree to accept responsibility for and the risks associated with self-installation, which may include service interruptions or system downtime.

### 1.3.4 On-site Infrastructure Response

Motorola Solutions' On-site Infrastructure Response service provides incident management and escalation for on-site technical service requests. The service is delivered by Motorola Solutions' CMSO organization in cooperation with a local service provider.

On-site Infrastructure Response may also be referred to as On-site Support.

#### 1.3.4.1 Description of Service

The Motorola Solutions CMSO Service Desk will receive the Customer'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 ensure strict compliance to committed response times.

The dispatched field service technician will travel to the Customer's location to restore the system in accordance with Section [Priority Level 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.

#### 1.3.4.2 Scope

On-site Infrastructure Response is available in accordance with Section [Priority Level Definitions and Response Times](#). Customer's Response Time Classification is designated in the Customer Support Plan.

#### 1.3.4.3 Geographical Availability

On-site Infrastructure Response is available worldwide where Motorola Solutions servicers are present. Response times are based on the Customer's local time zone and site location.

#### 1.3.4.4 Inclusions

On-site Infrastructure Response is provided for Motorola Solutions-provided infrastructure.

#### 1.3.4.5 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 Customer information, as needed.
- Motorola Solutions field service technician will perform the following on-site:
  - Run diagnostics on the infrastructure component.
  - Replace defective infrastructure components, as supplied by the Customer.
  - 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 Customer's premises.
  - If required by the Customer's repair verification in the CSP, verify with the Customer that restoration is complete or system is functional. If verification by the Customer 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 Customer or Motorola Solutions field service technician, indicating the incident is resolved.
- Notify the Customer 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 field service technician on-site, delayed, or closed.
- Provide incident activity reports to the Customer, if requested.

#### 1.3.4.6 Limitations and Exclusions

The following items are excluded from this service:

- All Motorola Solutions infrastructure components beyond the post-cancellation support period.
- All third-party infrastructure components beyond the post-cancellation support period.
- All broadband infrastructure components beyond the post-cancellation support period.
- Physically damaged infrastructure components.
- Third-party equipment not shipped by Motorola Solutions.



- Consumable items including, but not limited to, batteries, connectors, cables, toner or ink cartridges, tower lighting, laptop computers, monitors, keyboards, and mouse.
- Video retrieval from digital in-car video equipment.
- RF infrastructure and backhaul components, including but not limited to, antennas, transmission lines, antenna dehydrators, microwave, line boosters, amplifiers (such as tower top amplifiers and bi-directional amplifiers), logging recorders, data talker wireless transmitters, short haul modems, combiners, multicouplers, duplexers, shelters, shelter HVAC, generators, UPSs, and test equipment.
- Racks, furniture, and cabinets.
- Tower and tower mounted equipment.
- Non-standard configurations, customer-modified infrastructure, and certain third party infrastructure.
- Firmware or software upgrades.

#### 1.3.4.7 Customer Responsibilities

- Contact Motorola Solutions, as necessary, to request service.
- Prior to start date, provide Motorola Solutions with the following pre-defined Customer information and preferences necessary to complete CSP:
  - Incident notification preferences and procedure.
  - Repair verification preference and procedure.
  - Database and escalation procedure forms.
- Submit timely changes in any information supplied in the CSP to the 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 infrastructure 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 Customer, 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 in writing to provide supplemental On-site Infrastructure Response to Customer-provided third-party elements, the Customer agrees to obtain and provide applicable third-party consents or licenses to enable Motorola Solutions to provide the service.

#### 1.3.4.8 Priority Level Definitions and Response Times

This section describes the criteria Motorola Solutions used to prioritize incidents and service requests, and lists the response times for those priority levels.

**Table 1-6: Standard Level Definitions and Response Times**

Incident Priority	Incident Definition	On-site Response Time
<b>Critical P1</b>	<p><b>Core:</b> Core server or core link failure. No redundant server or link available.</p> <p><b>Sites/Subsites:</b> Primary site down. Two RF sites or more than 10% of RF sites down, whichever is greater.</p> <p><b>Consoles:</b> More than 40% of a site's console positions down.</p> <p><b>Conventional Channels:</b> Conventional Channel Gateways (CCGW) down without redundant gateways available.</p> <p><b>Security Features:</b> Security is non-functional or degraded.</p>	<p>Response provided 24/7 until service restoration.</p> <p>Field service technician arrival on-site within 4 hours of receiving dispatch notification.</p>
<b>High P2</b>	<p><b>Core:</b> Core server or link failures. Redundant server or link available.</p> <p><b>Consoles:</b> Between 20% and 40% of a site's console positions down.</p> <p><b>Sites/Subsites:</b> One RF site or up to 10% of RF sites down, whichever is greater.</p> <p><b>Conventional Channels:</b> Up to 50% of CCGWs down. Redundant gateways available.</p> <p><b>Network Elements:</b> Site router, site switch, or GPS server down. No redundant networking element available.</p>	<p>Response provided 24/7 until service restoration.</p> <p>Field service technician arrival on-site within 4 hours of receiving dispatch notification.</p>
<b>Medium P3</b>	<p><b>Consoles:</b> Up to 20% of a site's console positions down.</p> <p><b>Conventional Channels:</b> Single channel down. Redundant gateway available.</p> <p><b>Network Elements:</b> Site router/switch or GPS server down. Redundant networking element available.</p>	<p>Response provided during normal business hours until service restoration.</p> <p>Field service technician arrival on-site within 8 hours of receiving dispatch notification.</p>



Incident Priority	Incident Definition	On-site Response Time
<b>Low P4</b>	<b>Service Requests:</b> Minor events and warnings in the system. Preventative and planned maintenance activities (scheduled work).	Not applicable.

**Table 1-7: Premier Priority Level Definitions and Response Times**

Incident Priority	Incident Definition	On-site Response Time
<b>Critical P1</b>	<p><b>Core:</b> Core server or core link failure. No redundant server or link available.</p> <p><b>Sites/Subsites:</b> Primary site down. Two RF sites or more than 10% of RF sites down, whichever is greater.</p> <p><b>Consoles:</b> More than 40% of a site's console positions down.</p> <p><b>Conventional Channels:</b> Conventional Channel Gateways (CCGW) down without redundant gateways available.</p> <p><b>Security Features:</b> Security is non-functional or degraded.</p>	<p>Response provided 24/7 until service restoration.</p> <p>Field service technician arrival on-site within 2 hours of receiving dispatch notification.</p>
<b>High P2</b>	<p><b>Core:</b> Core server or link failures. Redundant server or link available.</p> <p><b>Consoles:</b> Between 20% and 40% of a site's console positions down.</p> <p><b>Sites/Subsites:</b> One RF site or up to 10% of RF sites down, whichever is greater.</p> <p><b>Conventional Channels:</b> Up to 50% of CCGWs down. Redundant gateways available.</p> <p><b>Network Elements:</b> Site router, site switch, or GPS server down. No redundant networking element available.</p>	<p>Response provided 24/7 until service restoration.</p> <p>Field service technician arrival on-site within 2 hours of receiving dispatch notification.</p>
<b>Medium P3</b>	<p><b>Consoles:</b> Up to 20% of a site's console positions down.</p> <p><b>Conventional Channels:</b> Single channel down. Redundant gateway available.</p> <p><b>Network Elements:</b> Site router/switch or GPS server down. Redundant networking element available.</p>	<p>Response provided during normal business hours until service restoration.</p> <p>Field service technician arrival on-site within 8 hours of receiving dispatch notification.</p>
<b>Low P4</b>	<b>Service Requests:</b> Minor events and warnings in the system. Preventative and planned maintenance activities (scheduled work).	Not applicable.

**Table 1-8: Limited Priority Level Definitions and Response Times**

Incident Priority	Incident Definition	On-site Response Time
<b>Critical P1</b>	<p><b>Core:</b> Core server or core link failure. No redundant server or link available.</p> <p><b>Sites/Subsites:</b> Primary site down. Two RF sites or more than 10% of RF sites down, whichever is greater.</p> <p><b>Consoles:</b> More than 40% of a site's console positions down.</p> <p><b>Conventional Channels:</b> Conventional Channel Gateways (CCGW) down without redundant gateways available.</p> <p><b>Security Features:</b> Security is non-functional or degraded.</p>	<p>Response provided during normal business hours until service restoration.</p> <p>Field service technician arrival on-site within 4 hours of receiving dispatch notification.</p>
<b>High P2</b>	<p><b>Core:</b> Core server or link failures. Redundant server or link available.</p> <p><b>Consoles:</b> Between 20% and 40% of a site's console positions down.</p> <p><b>Sites/Subsites:</b> One RF site or up to 10% of RF sites down, whichever is greater.</p> <p><b>Conventional Channels:</b> Up to 50% of CCGWs down. Redundant gateways available.</p> <p><b>Network Elements:</b> Site router, site switch, or GPS server down. No redundant networking element available.</p>	<p>Response provided during normal business hours until service restoration.</p> <p>Field service technician arrival on-site within 4 hours of receiving dispatch notification.</p>
<b>Medium P3</b>	<p><b>Consoles:</b> Up to 20% of a site's console positions down.</p> <p><b>Conventional Channels:</b> Single channel down. Redundant gateway available.</p> <p><b>Network Elements:</b> Site router/switch or GPS server down. Redundant networking element available.</p>	<p>Response provided during normal business hours until service restoration.</p> <p>Field service technician arrival on-site within 8 hours of receiving dispatch notification.</p>
<b>Low P4</b>	<p><b>Service Requests:</b> Minor events and warnings in the system. Preventative and planned maintenance activities (scheduled work).</p>	Not applicable.

### 1.3.5 Annual Preventative Maintenance

Motorola Solutions personnel will perform a series of maintenance tasks to keep network equipment functioning correctly.

#### 1.3.5.1 Description of Service

Annual Preventative Maintenance provides annual operational tests on the Customer's infrastructure equipment to monitor its conformance to specifications.



### 1.3.5.2 Scope

Annual Preventive Maintenance will be performed during standard business hours, unless otherwise agreed to in writing. After the service starts, if the system or Customer requirements dictate that the service must occur outside of standard business hours, an additional quotation will be provided. The Customer is responsible for any charges associated with unusual access requirements or expenses.

### 1.3.5.3 Inclusions

Annual Preventive Maintenance service will be delivered for Motorola Solutions-provided infrastructure, including integrated third-party products, per the level of service marked in [Table 1-9: Preventive Maintenance Level](#).

**Table 1-9: Preventive Maintenance Level**

Service Level	Included
Level 1 Preventive Maintenance	X
Level 2 Preventive Maintenance	

### 1.3.5.4 Motorola Solutions Responsibilities

- Notify the Customer of any planned system downtime needed to perform this service.
- Maintain communication with the Customer as needed until completion of the Annual Preventive Maintenance.
- Determine, in its sole discretion, when an incident requires more than the Annual Preventive Maintenance services described in this SOW, and notify the Customer of an alternative course of action.
- Provide the Customer with a report in Customer Hub, or as otherwise agreed in the CSP, comparing system performance with expected parameters, along with any recommended actions. Time allotment for report completion is to be mutually agreed.
- Provide trained and qualified personnel with proper security clearance required to complete Annual Preventive Maintenance services.
- Field service technician will perform the following on-site:
- Perform the tasks defined in Section [Preventative Maintenance Tasks](#).
  - Perform the procedures defined in Section [Site Performance Evaluation Procedures](#) for each site type on the system.
  - Provide diagnostic and test equipment necessary to perform the Preventive Maintenance service.
  - As applicable, use the Method of Procedure (MOP) defined for each task.



### 1.3.5.5 Limitations and Exclusions

The following activities are outside the scope of the Annual Preventive Maintenance service:

- Preventive maintenance for third-party equipment not sold by Motorola Solutions as part of the original system.
- Network transport link performance verification.
- Verification or assessment of Information Assurance.
- Any maintenance and/or remediation required as a result of a virus or unwanted cyber intrusion.
- Tower climbs, tower mapping analysis, or tower structure analysis.

### 1.3.5.6 Customer Responsibilities

- Provide preferred schedule for Annual Preventative Maintenance to Motorola Solutions.
- Authorize and acknowledge any scheduled system downtime.
- Maintain periodic backup of databases, software applications, and firmware.
- Establish and maintain a suitable environment (heat, light, and power) for the equipment location as described in equipment specifications, and provide Motorola Solutions full, free, and safe access to the equipment so that Motorola Solutions may provide services. All sites shall be accessible by standard service vehicles.
- Submit timely changes in any information supplied in the CSP to the CSM.
- Provide site escorts, if required, in a timely manner.
- Provide Motorola Solutions with requirements necessary for access to secure facilities.
- In the event that Motorola Solutions agrees in writing to provide supplemental Annual Preventive Maintenance to third-party elements provided by Customer, the Customer agrees to obtain any third-party consents or licenses required to enable Motorola Solutions field service technician to access the sites to provide the service.

### 1.3.5.7 Preventative Maintenance Tasks

The Preventive Maintenance service includes the tasks listed in this section. Tasks will be performed based on the level of service noted in Section [Inclusions](#).

MASTER SITE CHECKLIST – LEVEL 1	
Servers	
Equipment Alarms	Check LED and/or other status indicators for fault conditions.
Capture Diagnostics	Perform recommended diagnostic tests based on server type. Capture available diagnostic logs.



MASTER SITE CHECKLIST – LEVEL 1	
Network Management (NM) Client Applications	Review Unified Event Manager (UEM) events and verify backhaul links are reported as operational. Review event log for persistent types. Verify all NM client applications are operating correctly.
Verify System software physical media	Perform audit of software media on site. Verify that versions, KC numbers, and types match what is deployed to Customer server.
Complete Backup	Verify backups have been completed or scheduled, and that data has been stored in accordance with the Customer's backup plan. Check that adequate storage space is available for backups.
Network Time Protocol (NTP)	Verify operation and syncing all devices.
Data Collection Devices (DCD) check (if present)	Verify data collection.
Anti-Virus	Verify anti-virus is enabled and that definition files on core security management server were updated within two weeks of current date.
Routers	
Equipment Alarms	Check LED and/or other status indicators for fault conditions.
Capture Diagnostics	Perform recommended diagnostic tests based on router type. Capture available diagnostic logs.
Verify Redundant Routers	Test redundancy in cooperative WAN routers. Carry out core router switchover in coordination with Customer.
Switches	
Equipment Alarms	Check LED and/or other status indicators for fault conditions.
Capture Diagnostics	Perform recommended diagnostic tests based on switch type. Capture available diagnostic logs.
Verify Redundant Switches	Test redundancy in backhaul switches. Carry out core router switchover in coordination with Customer.

MASTER SITE CHECKLIST – LEVEL 1	
Domain Controllers (non-Common Server Architecture)	
Equipment Alarms	Check LED and/or other status indicators for fault conditions.
Capture Diagnostics	Perform recommended diagnostic tests based on server type. Capture available diagnostic logs.
Verify System software physical media	Perform audit of software media on site. Verify that versions, KC numbers, and types match what is deployed to Customer server.
Firewalls	



MASTER SITE CHECKLIST – LEVEL 1	
Equipment Alarms	Check LED and/or other status indicators for fault conditions.
Capture Diagnostics	Perform recommended diagnostic tests based on server type. Capture available diagnostic logs.
Logging Equipment	
Equipment Alarms	Check LED and/or other status indicators for fault conditions.
Capture Diagnostics	Perform recommended diagnostic tests based on server type. Capture available diagnostic logs.
Server CPU Health	Check memory, HDD, CPU, and disk space utilization.

PRIME SITE CHECKLIST – LEVEL 1	
Software	
Verify System software physical media	Perform audit of software media on site. Verify that versions, KC numbers, and types match what is deployed to Customer server.
Switches	
Equipment Alarms	Check LED and/or other status indicators for fault conditions.
Capture Diagnostics	Perform recommended diagnostic tests based on switch type. Capture available diagnostic logs.
Clean Fans and Equipment	Use antistatic vacuum to clean cooling pathways.
Routers	
Equipment Alarms	Check LED and/or other status indicators for fault conditions.
Capture Diagnostics	Perform recommended diagnostic tests based on router type. Capture available diagnostic logs.
Clean Fans and Equipment	Use antistatic vacuum to clean cooling pathways.
Miscellaneous Equipment	
Equipment Alarms	Check LED and/or other status indicators for fault conditions.
Capture Diagnostics	Perform recommended diagnostic tests based on server type. Capture available diagnostic logs.
Site Frequency Standard Check (Timing Reference Unit)	Check LEDs for proper operation.
Site Controllers	



PRIME SITE CHECKLIST – LEVEL 1	
Capture Diagnostics	Perform recommended diagnostic tests based on server type. Capture available diagnostic logs.
Equipment Alarms	Check LED and/or other status indicators for fault conditions.
Clean Fans and Equipment	Use antistatic vacuum to clean cooling pathways.
Site Controller Redundancy (Trunking)	Roll site controllers with no dropped audio.
Comparators	
Equipment Alarms	Verify no warning/alarm indicators.
Capture Diagnostics	Perform recommended diagnostic tests based on server type. Capture available diagnostic logs.
Clean Fans and Equipment	Use antistatic vacuum to clean cooling pathways.

DISPATCH SITE CHECKLIST – LEVEL 1	
General	
Inspect all Cables	Inspect all cables and connections to external interfaces are secure.
Mouse and Keyboard	Verify operation of mouse and keyboard.
Configuration File	Verify each operator position has access to required configuration files.
Console Operator Position Time	Verify console operator position time is consistent across all operator positions.
Screensaver	Verify screensaver set as Customer prefers.
Screen Performance	Verify screen operational and is not suffering from dead pixels or image burn-in that prevent user operation.
Touchscreen	Verify touchscreen operation, if present.
Cabling/Lights/Fans	Visual inspection of all equipment cabling, lights, and fans
Filters/Fans/Dust	Clean all equipment filters and fans and remove dust.
Monitor and Hard Drive	Confirm monitor and hard drive do not "sleep".
DVD/CD	Verify and clean DVD or CD drive.
Time Synchronization	Verify console time is synchronized with NTP server





DISPATCH SITE CHECKLIST – LEVEL 1	
Anti-Virus	Verify anti-virus is enabled and that definition files have been updated within two weeks of current date.
Headset Unplugged Testing	
Speakers	Test all speakers for audio quality, volume, static, drop-outs, and excess hiss when turned up.
Channel Audio in Speaker	Verify selected channel audio in select speaker only.
Footswitch Pedals	Verify both footswitch pedals operational.
Radio On-Air Light	Verify radio on-air light comes on with TX (if applicable).
Headset Plugged In Testing	
Radio TX and RX	Verify radio TX/RX from both headset jacks. Verify levels OK. Check volume controls for noise, static, or drop-outs.
Speaker Mute	Verify speaker mutes when muted.
Telephone Operation	Verify telephone operational through both headset jacks. Check volume controls for noise, static, or drop-outs.
Audio Switches	Verify audio switches to speaker when phone off-hook if interfaced to phones.
Radio Takeover in Headset	Verify radio-takeover in headset mic when phone is off-hook, with mic switching to radio and muting phone during push-to-talk.
Other Tests	
Phone Status Light	Verify phone status light comes on when phone is off-hook (if applicable).
Desk Microphone Operation	Confirm desk mic operation (if applicable).
Radio Instant Recall Recorder (IRR) Operation	Verify radio IRR operational on Motorola Solutions dispatch (if applicable).
Telephone IRR Operation	Verify telephone IRR operational on Motorola Solutions dispatch, if on radio computer.
Recording	Verify operator position being recorded on long term logging recorder, if included in service agreement
Computer Performance Testing	
Computer Reboot	Reboot operator position computer.
Computer Operational	Confirm client computer is fully operational (if applicable).
Audio Testing	
Conventional Resources	Confirm all conventional resources are functional, with adequate audio levels and quality.
Secure Mode	Confirm any secure talkgroups are operational in secure mode.



DISPATCH SITE CHECKLIST – LEVEL 1	
Trunked Resources	Confirm all trunked resources on screen are functioning by placing a call in both directions, at the Customer's discretion, and at a single operator position
Backup Resources	Confirm backup resources are operational.
Logging Equipment Testing	
Recording - AIS Test	Verify audio logging of trunked calls.
Recording	With Customer assistance, test operator position logging on recorder.
System Alarms	Review alarm system on all logging equipment for errors.
Capture Diagnostics	Perform recommended diagnostic tests based on equipment, and capture available diagnostic logs.
Verify System software Physical media	Perform audit of software media on site. Verify that versions, KC numbers, and types match what is deployed to Customer server.
Playback Station (Motorola Solutions Provided)	
Capture Diagnostics	Perform recommended diagnostic tests based on equipment, and capture available diagnostic logs.
Recall Audio	Verify that radio and telephone audio can be recalled.

RF SITE CHECKLIST – LEVEL 1	
RF PM Checklist	
Equipment Alarms	Verify no warning or alarm indicators.
Clean Fans and Equipment	Use an antistatic vacuum to clean cooling pathways.
Site Frequency Standard Check	Check LEDs for proper operation, PCA screens indicating potential faults for proper operation
Basic Voice Call Check	Voice test each voice path, radio to radio.
Trunking Control Channel Redundancy	Roll control channel, test, and roll back if the site has GTR stations. This test is not applicable for D series stations.
Trunking Site Controller Redundancy, ASTRO® 25 Site Repeater only	Roll site controllers with no dropped audio if the site has GTR stations. This test is not applicable for D series stations.



**RF SITE CHECKLIST – LEVEL 1**

PM Optimization Workbook (See Section 1.3.20.8: Site Performance Evaluation Procedures for GTR tests)	Complete Base Station Evaluation tests - Frequency Error, Modulation Fidelity, Forward at Set Power, Reverse at Set Power, and Gen Level Desense no TX. Update station logs.
---	--

**MOSCAD CHECKLIST – LEVEL1**

<b>MOSCAD Server</b>	
Equipment Alarms	Verify no warning or alarm indicators.
Check Alarm/Event History	Review MOSCAD alarm and events to find if there are chronic issues.
Windows Event Logs	Review Windows event logs. Save and clear if full.
Password Verification	Log in to site devices to verify passwords. Document changes if any found.
<b>MOSCAD Client</b>	
Equipment Alarms	Verify no warning or alarm indicators.
Check Alarm / Event History	Review MOSCAD alarm and events to find if there are chronic issues.
Windows Event Logs	Review Windows event logs. Save and clear if full.
Password Verification	Site devices to verify passwords. Document changes if any found.
Verify System software Physical media	Perform audit of software media on site. Verify that versions, KC numbers, and types match what is deployed to Customer server.
<b>MOSCAD RTUs</b>	
Equipment Alarms	Verify no warning or alarm indicators.
Verify Connectivity	Verify connectivity
Password Verification	Site devices to verify passwords. Document changes if any found.
Check Alarm/Event History	Review MOSCAD alarms and events to find if there are chronic issues.



**MOSCAD CHECKLIST – LEVEL1**

Verify System software Physical media	Perform audit of software media on site. Verify that versions, KC numbers, and types match what is deployed to Customer server.
---------------------------------------	---

**FACILITIES CHECKLIST – LEVEL 1****Visual Inspection Exterior**

Antenna Site Registration Sign	Verify that the Antenna Site Registration sign is posted.
Warning Sign - Tower	Verify that a warning sign is posted on the tower.
Warning Sign - Gate	Verify that a warning sign is posted at the compound gate entrance.
10 Rule Sign	Verify that a 10 rules sign is posted on the inside of the shelter door.
Outdoor Lighting	Verify operation of outdoor lighting and photocell.
Exterior of Building	Check exterior of building for damage and disrepair.
Fences / Gates	Check fences and gates for damage and disrepair.
Landscape / Access Road	Check landscape and access road for accessibility.

**Visual Inspection Interior**

Electrical Surge Protectors	Check electrical surge protectors for alarms.
Emergency Lighting	Verify emergency lighting operation.
Indoor Lighting	Verify indoor lighting.
Equipment Inspection	Visually inspect that all hardware, including equipment, cables, panels, batteries, and racks, is in acceptable physical condition for normal operation.
Regulatory Compliance (License, ERP, Frequency, Deviation)	Check for site and station FCC licensing indicating regulatory compliance.
Clean Fans and Equipment	Use antistatic vacuum to clean cooling pathways.

**UPS**

Visual inspection (condition, cabling)	Check for damage, corrosion, physical connections, dirt and dust, and error indications.
--	--

**Generator**

FACILITIES CHECKLIST – LEVEL 1	
Visual Inspection	Check panel housing for cracks, rust, and weathering. Check physical connections for corrosion, dirt and dust, or other abnormal conditions.
Fuel	Verify fuel levels in backup generators, document date of last fuel delivered from fuel service provider.
Oil	Check the oil dipstick for proper level. Note condition of oil.
Verify operation (no switchover)	Verify generator running and check ease or difficulty of start. Is generator "throttling" or running smooth? Any loud unusual noise? Document any concerns or abnormal conditions.
Motorized Dampers	Check operation
HVAC	
Air Filter	Check air filter and recommend replacement if required.
Coils	Check coils for dirt and straightness.
Outdoor Unit	Check that outdoor unit is unobstructed.
Wiring	Check wiring for insect and rodent damage.
Cooling / Heating	Check each HVAC unit for cooling/heating.
Motorized Dampers	Check operation.

TOWER CHECKLIST – LEVEL 1	
Structure Condition	
Rust	Check structure for rust.
Cross Members	Check for damaged or missing cross members.
Safety Climb	Check safety climb for damage.
Ladder	Verify that ladder system is secured to tower.
Welds	Check for cracks or damaged welds.
Outdoor lighting/photocell	Test outdoor lighting and photocell.
Drainage Holes	Check that drainage holes are clear of debris.
Paint	Check paint condition.
Tower Lighting	
Lights/Markers	Verify all lights and markers are operational.
Day/Night Mode	Verify day and night mode operation.



TOWER CHECKLIST – LEVEL 1	
Power Cabling	Verify that power cables are secured to tower.
Antennas and Lines	
Antennas	Visually inspect antennas for physical damage from ground using binoculars.
Transmission Lines	Verify that all transmission lines are secure on the tower.
Grounding	
Structure Grounds	Inspect grounding for damage or corrosion
Guy Wires	
Tower Guys	Visually inspect guy wires for fraying, loss of tension, or loss of connection.
Guy Wire Hardware	Check hardware for rust.
Concrete Condition	
Tower Base	Check for chips or cracks.

### 1.3.5.8 Site Performance Evaluation Procedures

The Preventive Maintenance service includes the site performance evaluation procedures listed in this section.

ASTRO 25 SITE PERFORMANCE
Antennas
Transmit Antenna Data
Receive Antenna System Data
Tower Top Amplifier Data



ASTRO 25 SITE PERFORMANCE	
FDMA Mode	
Base Radio Transmitter Tests	
Base Radio Receiver Tests	
Base Radio Transmit RFDS Tests	
Receive RFDS Tests with TTA (if applicable)	
Receive RFDS Tests without TTA (if applicable)	
TDMA Mode	
Base Radio TDMA Transmitter Tests	
Base Radio TDMA Receiver Tests	
TDMA Transmit RFDS Tests	
TDMA Receive RFDS Tests with 432 Diversity TTA	
TDMA Receive RFDS Tests with 2 Independent TTAs (if applicable)	
TDMA Receive RFDS Tests without TTA (if applicable)	

## 1.4 Priority Level Definitions and Response Times

[Table 1-10: Priority Level Definitions and Response Times](#) describes the criteria Motorola Solutions CMSO uses to prioritize incidents and service requests, and lists the response times for those priority levels.

**Table 1-10: Priority Level Definitions and Response Times**

Incident Priority	Incident Definition	Initial Response Time
<b>Critical P1</b>	<p><b>Core:</b> Core server or core link failure. No redundant server or link available.</p> <p><b>Sites/Subsites:</b> Primary site down. Two RF sites or more than 10% of RF sites down, whichever is greater.</p> <p><b>Consoles:</b> More than 40% of a site's console positions down.</p> <p><b>Conventional Channels:</b> Conventional Channel Gateways (CCGW) down without redundant gateways available.</p> <p><b>Security Features:</b> Security is non-functional or degraded.</p>	<p>Response provided 24/7 until service restoration.</p> <p>Technical resource will acknowledge incident and respond within 1 hour of CMSO logging incident.</p>



Incident Priority	Incident Definition	Initial Response Time
<b>High P2</b>	<b>Core:</b> Core server or link failures. Redundant server or link available. <b>Consoles:</b> Between 20% and 40% of a site's console positions down. <b>Sites/Subsites:</b> One RF site or up to 10% of RF sites down, whichever is greater. <b>Conventional Channels:</b> Up to 50% of CCGWs down. Redundant gateways available. <b>Network Elements:</b> Site router, site switch, or GPS server down. No redundant networking element available.	Response provided 24/7 until service restoration.  Technical resource will acknowledge incident and respond within 4 hours of CMSO logging incident.
<b>Medium P3</b>	<b>Consoles:</b> Up to 20% of a site's console positions down. <b>Conventional Channels:</b> Single channel down. Redundant gateway available. <b>Network Elements:</b> Site router/switch or GPS server down. Redundant networking element available.	Response provided during normal business hours until service restoration.  Technical resource will acknowledge incident and respond within 1 Business Day of CMSO logging incident.
<b>Low P4</b>	<b>Service Requests:</b> Minor events and warnings in the system. Preventative and planned maintenance activities (scheduled work).	Response provided during normal business hours.  Motorola Solutions will acknowledge and respond within 1 Business Day.

## 1.5 Network Event Monitoring

Network Event Monitoring provides continuous real-time fault monitoring for radio communications networks. Motorola uses a defined set of tools to remotely monitor the Customer's ASTRO 25 radio network and characterize network events. When an actionable event takes place, it becomes an incident. CMSO technologists acknowledge and assess these incidents, and initiate a defined response.

With Network Event Monitoring, Motorola uses a Managed Services Suite of Tools (MSST) to detect events 24/7 as they occur, analyze them, and escalate them to the Network Operation Center (NOC). Incidents will be generated automatically based on the criteria shown in [Table 1-11: Alarm Threshold Rule Options for All Event Types](#).

**Table 1-11: Alarm Threshold Rule Options for All Event Types**





Standard Threshold	Optional Threshold
<p>An incident will be triggered if an event fulfills one of the two following criteria:</p> <ul style="list-style-type: none"> <li>• Event occurs 5 times in 30 minutes.</li> <li>• Event causes 10 minutes of continuous downtime for a monitored component.</li> </ul>	<p>An incident will be triggered if an event fulfills one of the two following criteria:</p> <ul style="list-style-type: none"> <li>• Event occurs 7 times in 30 minutes.</li> <li>• Event causes 15 minutes of continuous downtime for a monitored component.</li> </ul>

The CMSO NOC agent assigns a priority level to an incident, then initiates a response in accordance with the Customer Handling Procedure (CHP). Depending on the incident, Motorola's response may include continued monitoring for further incident development, remote remediation by technical support, dispatching a field service technician, or other actions Motorola determines necessary.

To prevent duplicate incidents from being generated by the same root cause, Motorola employs an auto triage process that groups related incidents. The auto triage process therefore automatically assigns grouped incidents to a field service technician, enabling the resolution of these incidents together if the root alarm has been addressed.

Motorola uses a set of standard templates to record key information on service process, defined actions, and points of contact for the Customer's service. In the event of an incident, Motorola and the Customer can reference these templates. When information is updated, it will be organized in four categories:

- **Open** – Motorola's points of contact for dispatch permissions, entitlement information, and knowledge management.
- **Vendor** – Escalation and contact information.
- **Resolution** – Incident closure information.
- **Site Arrival** – Site arrival and exit process information.

The Customer will be able to access information on Network Event Monitoring activities via Customer Hub, including incident management reports. Any specific remediation and action notes from Motorola's CMSO or field service technicians will be available for the Customer to review as well.

Service Configuration Portal-Lite (SCP-Lite), which can be accessed through Customer Hub, provides a read-only view of the Customer's current service configuration, including site parameters, notification preferences and dispatch information. If the Customer or Motorola makes changes to the network, the updated information will be incorporated into SCP-Lite allowing the Customer a view of the ASTRO® 25 radio network's state.

### 1.5.1 Scope

Network Event Monitoring is available 24/7. Incidents generated by the monitoring service will be handled in accordance with Section [Priority Level Definitions and Response Times](#).



Network Event Monitoring is a globally provided service unless limited by data export control or other applicable local and regional regulations. Timeframes are based on the Customer's local time zone.

### 1.5.2 Inclusions

Network Event Monitoring is available for the devices listed in Section [Monitored Elements](#).

### 1.5.3 Motorola Responsibilities

- Provide a dedicated network connection necessary for monitoring the Customer's communication network. Section [Connectivity Matrix](#) describes available connectivity options.
- If determined necessary by Motorola Solutions, provide Motorola Solutions-owned equipment at the Customer's premises for monitoring network elements. The type of equipment and location of deployment is listed in Section [Motorola Solutions Owned and Supplied Equipment](#).
- Verify connectivity and event monitoring prior to system acceptance or start date.
- Monitor system continuously during hours designated in the Customer Support Plan (CSP), and in accordance with Section [Priority Level Definitions and Response Times](#).
- Remotely access the Customer's system to perform remote diagnosis as permitted by the Customer pursuant to Section [Customer Responsibilities](#).
- Create an incident, as necessary. Gather information to perform the following:
  - Characterize the issue
  - Determine a plan of action
  - Assign and track the incident to resolution
- Provide the Customer with system configuration info, site info, system notifications, and system notes via Customer Hub.
- Cooperate with the Customer to coordinate the transition of monitoring responsibilities between Motorola Solutions and the Customer as specified in Section [Customer Responsibilities](#).
- Maintain communication as needed with the Customer in the field until incident resolution.
- Provide available information on incident resolution to the Customer.

### 1.5.4 Limitations and Exclusions

The following activities are outside the scope of the Network Monitoring service:

- Motorola will not monitor any elements outside of the Customer's ASTRO 25 network, or monitor infrastructure provided by a third party, unless specifically stated. Monitored elements must be within the ASTRO 25 radio network and capable of sending alerts to the Unified Event Manager (UEM).
- Additional support charges above contracted service agreement fees may apply if Motorola determines that system faults were caused by the Customer making changes to critical system parameters without written agreement from Motorola.
- Monitoring of network transport, such as WAN ports, WAN cloud, and redundant paths, unless provided by supplemental service outside this standard scope.



- Emergency on-site visits required to resolve technical issues that cannot be resolved by working remotely with the Customer's technical resource.
- Elements deployed outside of ASTRO RNI (e.g., ASTRO CEN sites) are excluded from the service.
- System installations, upgrades, and expansions.
- Customer training.
- Hardware repair and/or replacement.
- Network security services.
- Information Assurance.

### 1.5.5 Customer Responsibilities

- Allow Motorola Solutions continuous remote access to enable the monitoring service.
- Provide continuous utility service to any Motorola Solutions equipment installed or used at the Customer's premises to support delivery of the service. The Customer agrees to take reasonable due care to secure the Motorola Solutions equipment from theft or damage while on the Customer'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 timely changes in any information supplied to Motorola Solutions and included in the CSP to the Customer Support Manager (CSM).
- Notify the CMSO when the Customer performs any activity that impacts the system. Activity that impacts the system 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.
- Send system configuration change requests to Motorola Solutions' CSM via Customer Hub.
- Allow Motorola Solutions' field service technician, if 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, if designated in the CSP, access to remove Motorola Solutions-owned monitoring equipment upon cancellation of service.
- Provide Motorola Solutions with all Customer-managed passwords required to access the Customer'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 system faults were caused by the Customer making changes to critical system parameters without written agreement from Motorola Solutions.



- In the event that Motorola Solutions agrees in writing to provide supplemental monitoring for third-party elements provided by the Customer, the Customer agrees to obtain third party consents or licenses required to enable Motorola Solutions to provide the monitoring service.
- Cooperate with Motorola Solutions and perform reasonable or necessary acts to enable Motorola Solutions to provide these services.
- Contact Motorola Solutions to coordinate transition of monitoring when the responsibility for monitoring needs to be transferred to or from Motorola Solutions, as specified in pre-defined information provided in the Customer's CSP. An example of a transfer scenario is transferring monitoring from Motorola Solutions for network monitoring after normal business hours.
  - Upon contact, the Customer must provide Motorola Solutions with customer name, site ID, status on any open incidents, priority level of any open incidents, brief descriptions of any ongoing incident, and action plan for resolving those incidents.
- Acknowledge that incidents will be handled in accordance with Section [Priority Level Definitions and Response Times](#).

### 1.5.6 Connectivity Matrix

ASTRO connectivity should be established prior to service start date.

**Table 1-12: Available Connectivity**

System Type	Available Connectivity	Set up and Maintenance
ASTRO 25	ASTRO Connectivity Service	Motorola

### 1.5.7 Motorola Solutions Owned and Supplied Equipment

This table identifies equipment that Motorola Solutions will supply to support the network monitoring service for the duration of the service.

**Table 1-13: Motorola Solutions Owned and Supplied Equipment**

Equipment Type	Location Installed
Firewall/Router	Primary Site
Service Delivery Management Server (DSR only)	Primary Site for each Zone

### 1.5.8 Monitored Elements

This table identifies the elements that can be monitored by the service. The specific quantities of each element to be monitored on the Customer's system will be inventoried in the CHP.

**Table 1-14: Monitored Elements**

Monitored Elements		
Active Directory	Enrichment Testing	Probe
Agent	Environmental	Core Switch



Monitored Elements		
AIS	ESX	Radio Interface
AMB	Exit Router	RDM
Application Server	RNI Firewall	RFDS
APX Cloud Application	Core Server	RGU
ATR	Gateway	RNG
AUC	Gateway Router	Site Router
Backup Server	Gateway Unit	RTU
Base Radio	GIS Server	SCOM Server
Call Processor	HSS	Short Data Router
Camera	Install Server	Statistical Server
CBSD	Site Switch	Storage Networking
CCGW	Licensing Service	Consoles
Load Balancer	Load Balancer	TRAK
Client Station	Logging Recorder	Terminal Server
CommandCentral AXS Dispatch Console	Logging Replay Station	Time Keeper
Controller	UNC	Training App
Conventional	UEM	Training Database
Core Router	MOSCAD Server	Trap Forwarder
Data Processing	Network Address	UCS
Database Server	Network Device	Licensing Server
Data Warehouse Server	NTP	Virtual Machine
Device Configuration Server	AIS	VMS
DNS	Application Server	VPM
Domain Controller	Packet Data Gateway	WSGU
D series Site Controller	Physical Host Environmental	ZDS
eNodeB	Physical Host Power and Network	Zone Controller
Active Directory	Power Distribution Unit	Syslog
Repeaters	Power Monitor	Proxy

