

# SECTION 5

# WARRANTY AND MAINTENANCE

PROJECT 25 SYSTEM UPGRADE

13 MAY 2015

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# WARRANTY AND MAINTENANCE

## 5.1 OVERVIEW

Motorola Solutions, Inc. (Motorola) Field Service Organization (FSO) will continue to support and maintain the proposed system with our highly trained and experienced system technicians. The City of Fort Lauderdale (City) will not have to rely on an independent servicer for warranty and post-warranty support. Motorola is unique in the industry in that we maintain an extensive FSO nearby in our Southeast Headquarters in Plantation, Florida with experienced system technicians, servicing customers throughout South Florida. The FSO has a very wide range of expertise, including RF, network, IP, and microwave. Our FSO will provide the City with support that is integrated with your solution's design and implementation team.

We offer the City of Fort Lauderdale a comprehensive Warranty and Maintenance Support Plan. This all-inclusive plan for the City provides one year of warranty and support. The comprehensive post warranty maintenance includes:

- Project 25 (P25) Maintenance.
- Hosted Master Site Connection (Service Agreement #S00001021096).
- Existing MERs Trailer Preventative Maintenance Contract (Service Agreement #S00001002125).
- Existing Microwave Backhaul Maintenance Contract (Service Agreement #S00001002125).
- Existing Subscriber Depot Maintenance Contract (Service Agreement #S00001002125).
- Existing Fire Station Alerting Maintenance (Service Agreement #S00001002125).

Post warranty maintenance will not include SmartZone maintenance. The SmartZone maintenance will be canceled when the City gives Motorola 30 days written notice, after the P25 system has been cutover and is operational. Changes will go into effect at the first of the following month.

These Service Agreements will be merged into one Service Agreement (#S00001002125) at the end of the P25 warranty period.

These services can help increase both the availability and the operating efficiency of your network, while effectively managing costs and ensuring the safety of your employees and the citizens they protect.

Attachments provided at the end of this section:

- Statements of Work in Attachments X & Y.
- Subscriber Depot Radio List in Attachment Z.

## 5.2 WARRANTY SUPPORT

Following system acceptance, a one-year warranty and maintenance support program on the new equipment included. This is designed to keep your system operating at peak performance (Table 5-1). The plan combines the services of our Systems Support Center (SSC), located in Schaumburg, Illinois, with those delivered by our local FSO located just minutes away.

**Table 5-1: Warranty services overview**

Warranty Services	Warranty Year 1
Standard One-Year Warranty	✓
▪ Dispatch Service – 7x24x365	✓
▪ Technical Support – 7x24x365	✓
▪ OnSite Infrastructure Response – 7x24x365	✓
▪ Network Preventative Maintenance	✓
▪ Infrastructure Repair Service with Advanced Replacement	✓

### 5.2.1 Dispatch Operations

The SSC is the single point of contact for all service issues. With Dispatch Service, one phone call to the SSC and the system response and restoration process begins immediately. Dispatch ensures that local, trained, and qualified technicians will arrive on location within hours to diagnose and restore the City’s communications network. An automated escalation and case management process is followed to ensure that technician site arrival and system restoration comply with your contracted response and restore times.

Once the issue has been resolved, the SSC verifies resolution and with your approval, closes the case. Case notes are updated throughout the repair process until completion and are available to the City via Motorola Online (MOL) web access.

### 5.2.2 Technical Support Operations

Technical Support Operations provides an additional layer of support through centralized, telephone consultation for issues that require a high level of communications network expertise and troubleshooting capabilities. Technical Support is available 24 hours per day, 365 days a year at the SSC, and is staffed with trained, skilled technologists specializing in the diagnosis and swift resolution of network performance issues. Our technologists work closely with the field service support team to ensure rapid resolution and closure of all network issues. They have access to a solutions database as well as in-house test labs and development engineers. Technical Support cases are continuously monitored against stringent inbound call management and case management standards to ensure rapid and consistent issue resolution. Technical Support service translates into measurable, customer-specific metrics for assured network performance and system availability.

### 5.2.3 OnSite Infrastructure Response

Motorola's local FSO will provide OnSite Infrastructure Response for all issues related to the proposed ASTRO 25 system. The FSO has been maintaining Motorola customers, products, and systems for over 20 years in South Florida. Our FSO is staffed with highly trained professionals that have experience maintaining a variety of technology platforms, including the City's current radio system. All FSO technicians continually participate in training with a minimum of 40 hours per year. FSO technicians are required to have at a minimum Electronics Technicians Association (ETA) Journeyman certification.

Our FSO is located within minutes of the City of Fort Lauderdale (in Broward County) and has over 20 years of experience supporting large-scale 800 MHz simulcast trunked systems including Miami Beach, Broward County, Plantation, Hollywood, Coral Springs, Palm Beach County, and others.

The City can be confident knowing that they are entrusting this significant investment with a qualified partner, with a proven track record, who will be there every step of the way working to keep your communications system operating at peak performance and supporting the City's ongoing communications needs.

The FSO will be on site within two hours of notifications for all major system issues. Upon site arrival, the field technician notifies the SSC for tracking and notification purposes and begins to work on the issue. The field technician will review the case notes to determine the status of the issue. Our Technical Support team at the SSC will work hand in hand with the field technician until the issue is resolved and the system is restored to normal operations.

### 5.2.4 Network Preventative Maintenance

Network Preventative Maintenance service provides a scheduled operational test and alignment of the infrastructure equipment. The purpose of preventive maintenance testing is to ensure that all equipment meets original manufacturer specifications and to confirm that all critical subsystems in the network are fully operational. The Preventative Maintenance check can help identify faulty system and subsystem components, such as controllers, base stations, routers, and switches, which can lead to major site or system outages if left unchecked. The annual Preventative Maintenance check is a critical part of the overall service support plan. Our field support team will work with the City to ensure the test is scheduled and executed in cooperation with the City. Upon completion, test results will be submitted to the City and kept as part of the ongoing maintenance records for the system. Preventative Maintenance testing is performed annually and scheduled through the Dispatch Operations team at the SSC.

### 5.2.5 Infrastructure Board Repair with Advanced Replacement

Infrastructure Repair with our Advanced Replacement upgrade supplements your spares inventory with Motorola's centralized inventory of critical equipment. In advance of Motorola repairing the malfunctioning unit, a replacement unit will be sent to the City within 24 hours to ensure a spare unit is available. Upon receipt of the malfunctioning unit, Motorola repairs the unit and replaces it in our centralized inventory.

Motorola repairs all Motorola-furnished equipment. Repair management is handled through a central location, eliminating the need to send equipment to multiple locations. Comprehensive test labs can replicate the network in order to reproduce and analyze the issue. State-of-the-art repair tools enable Motorola's technicians to troubleshoot, analyze, test, and restore the equipment to the original performance specifications.

## 5.3 P25 POST-WARRANTY SUPPORT

As our continuing commitment of service and support for the City system after the first-year warranty, Motorola has included post-warranty pricing for years two through five for the infrastructure equipment included in this proposal. The continuation of the warranty services beyond the first year will help ensure maximum system uptime as well as maintaining the highest level of system performance for years to come (Table 5-2).

Maintenance for the existing SmartZone 3.0 equipment is not included in this proposal. Maintenance for the existing equipment can be covered via a separate agreement or through time and materials.

**Table 5-2: Post-warranty services overview**

Post-Warranty Services	Post Warranty Years 2 to 5
▪ Dispatch Service – 7x24x365	✓
▪ Technical Support – 7x24x365	✓
▪ OnSite Infrastructure Response – 7x24x365	✓
▪ Network Preventative Maintenance	✓
▪ Infrastructure Repair Service with Advanced Replacement	✓

### 5.3.1 Dispatch Operations

Motorola’s Systems Support Center (SSC) is the single point of contact for all service issues. With Dispatch Service, one phone call to the SSC and the system response and restoration process begins immediately. Dispatch ensures that local, trained, and qualified technicians will arrive on location within hours to diagnose and restore the City’s communications network. An automated escalation and case management process is followed to ensure that technician site arrival and system restoration comply with your contracted response and restore times.

Once the issue has been resolved, the SSC verifies resolution and with your approval and closes the case. Case notes are updated throughout the repair process until completion and are available to the City via Motorola Online (MOL) web access.

### 5.3.2 Technical Support Operations

Technical Support Operations provide an additional layer of support through centralized, telephone consultation for issues that require a high level of communications network expertise and troubleshooting capabilities. Technical Support is available 24 hours per day, 365 days a year at the SSC and is staffed with trained, skilled technologists specializing in the diagnosis and swift resolution of network performance issues. Our technologists work closely with the field service support team to ensure rapid resolution and closure of all network issues, and they have access to a solutions database as well as in house test labs and development engineers. Technical Support cases are continuously monitored against stringent inbound call management and case management standards to ensure rapid and consistent issue resolution. Technical Support service translates into measurable, customer-specific metrics for assured network performance and system availability.

### 5.3.3 OnSite Infrastructure Response

Motorola's local FSO will provide OnSite Infrastructure Response for all issues related to the proposed ASTRO 25 system. FSO has been maintaining Motorola customers, products, and systems for over 20 years in South Florida. Our FSO is staffed with highly trained professionals that have experience maintaining a variety of technology platforms, including the City's current radio system. All FSO technicians continually participate in training with a minimum of 40 hours per year. FSO technicians are required to have at a minimum Electronics Technicians Association (ETA) Journeyman certification.

Our FSO is located within minutes of the City of Fort Lauderdale (in Broward County) and has over 20 years of experience supporting large-scale 800 MHz simulcast trunked systems, including Miami Beach, Broward County, Plantation, Hollywood, Coral Springs, Palm Beach County, and many other cities in Florida.

The City can be confident knowing that they are entrusting this significant investment with a qualified partner, with a proven track record, who will be there every step of the way working to keep your communications system operating at peak performance and supporting the City's ongoing communications needs.

The FSO will be on site within two hours of notification for all major system issues. Upon site arrival, the field technician notifies the SSC for tracking and notification purposes and begins to work on the issue. The field technician will review the case notes to determine the status of the issue. Our Technical Support team at the SSC will work hand in hand with the field technician until the issue is resolved and the system is restored to normal operations.

### 5.3.4 Network Preventative Maintenance

Network Preventative Maintenance service provides a scheduled operational test and alignment of the infrastructure equipment. The purpose of preventive maintenance testing is to ensure that all equipment meets original manufacturer specifications and to confirm that all critical subsystems in the network are fully operational. The Preventative Maintenance check can help identify faulty system and subsystem components, such as controllers, base stations, routers, and switches, which can lead to major site or system outages if left unchecked. The annual Preventative Maintenance check is a critical part of the overall service support plan. Our field support team will work with the City to ensure the test is scheduled and executed in cooperation with the City. Upon completion, test results will be submitted to the City and kept as part of the ongoing maintenance records for the system. Preventative Maintenance testing is performed annually and scheduled through the Dispatch Operations team at the SSC.



## 5.3.5 Infrastructure Board Repair with Advanced Replacement

Infrastructure Repair with our Advanced Replacement upgrade supplements your spares inventory with Motorola's centralized inventory of critical equipment. In advance of Motorola repairing the malfunctioning unit, a replacement unit is sent to you within 24 hours to ensure a spare unit is available. Upon receipt of the malfunctioning unit, Motorola repairs the unit and replace it in our centralized inventory.

Motorola provides repair of all Motorola-manufactured equipment, as well as equipment from third-party infrastructure vendors. Repair management is handled through a central location eliminating the need to send equipment to multiple locations. Comprehensive test labs can replicate the network in order to reproduce and analyze the issue. State-of-the-art repair tools enable Motorola's technicians to troubleshoot, analyze, test, and restore the equipment to the original performance specifications.

## 5.4 ADDITIONAL AVAILABLE MAINTENANCE SERVICES

Motorola has included pricing in the proposal for the following additional services. These services are available for purchase during the warranty year as well post-warranty.

### 5.4.1 Network Monitoring

Network Monitoring service can help keep your network at optimum availability so it is ready to serve mission critical communications needs. By watching over the network continuously, Network Monitoring service takes action whenever needed, and resolves network problems. We often intervene and correct the problem before you even know a problem exists. This feature provides improved productivity and enhanced network performance, which in turn helps to increase your technology return on investment.

Using a combination of network monitoring software, automated alerts, and remote diagnostics inquiries, our SSC technologists actively monitor your network to maximize network uptime and overall preparedness for the expected and unexpected. Upon receiving an alert, our team immediately performs a series of diagnostics to assess the problem. Often the situation can be resolved remotely, but when additional attention is required, local field technicians are dispatched immediately to your site to achieve restoration.

### 5.4.2 Software Maintenance Agreement

The Software Maintenance Agreement (SMA) is a lifecycle plan that compliments an ASTRO25 system by providing periodic software updates to safeguard and enhance operations and extend the lifespan of the system. In addition to providing system release software for your ASTRO25 system, the SMA includes software updates for third-party infrastructure products, radio subscriber units, product programming software, as well as commercial operating system (OS) patch updates. In addition, Motorola integrates all third party OEM updates and pre tests and certifies functionality and compatibility, mitigating risk of interference to your system operation. Regular updates ensure commercial software remains within the OEM support coverage and may provide operational enhancements of previously purchased features.

Hardware and implementation labor are not included with the SMA. If the SMA is not purchased as part of the service agreement, all updates will be billed on a Time and Material basis when implemented.

## 5.5 SUMMARY

Motorola's in-depth and first-hand knowledge of mobility, communications processes, technologies, and integrated solutions is invaluable. We have more than 80 years of experience designing, building, maintaining and managing large, complex mobile networks in more than 80 countries. Our 6,500 Motorola Services professionals and over 8,000 world-class partners and certified subcontractors, have the support of a global network of R&D centers and test labs, as well as Motorola service and support centers at local, regional and national levels. Few organizations claim to offer such a complete range of professional services within the communications industry. Even fewer are prepared to deliver.

As technology continues to evolve, the City of Fort Lauderdale can be confident that Motorola will also continue to improve on our services and processes. As a service provider for mission-critical users, Motorola understands that the City has an enormous responsibility to provide its user community with the best performing communications system possible and Motorola will continue to be your trusted and loyal partner every step of the way. From the initial purchase through the life cycle of your system, Motorola will continue to deliver and provide a service support product and structure that is distinguished, unique, and innovative.

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