Motorola Solutions, Inc.
7237 Church Ranch Blvd Suite 406
Westminster, CO 80021

June 9, 2015

Mr. Tyson Mock
Cochise County Information Technology
1415 Melody Lane, Building D
Bisbee, AZ 85603

Subject: Microwave Solution

Dear Mr. Mock:

Motorola Solutions, Inc. ("Motorola") is pleased to have the opportunity to provide Cochise County with quality communications equipment and services. The Motorola project team has taken great care to propose a solution that will meet your needs and provide unsurpassed value.

To best meet the functional and operational needs you requested, Motorola's solution includes a combination of hardware, software, and services. Specifically, this solution provides:

- Fifteen (15) Digital Links of MNI's Proteus MX 6GHz and 11GHz

This proposal is subject to the terms and conditions of the Communications System Agreement (CSA) dated December 10, 2014 between Cochise County and Motorola, and the payment terms attached hereto. This proposal shall remain valid until July 31, 2015. Motorola will be pleased to address any questions you may have regarding the proposal. Please direct any questions to your Motorola Account Executive, Carrie Hemmen at 602-319-2355, or carrie.hemmen@motorolasolutions.com.

Motorola appreciates your continued partnership and we look forward to continuing our relationship and implementing this project with Cochise County.

Sincerely,
MOTOROLA SOLUTIONS, INC.

Larry Mabry
MSSSI Vice President & Director Sales

MICROWAVE SOLUTION

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SECTION 1

SYSTEM DESCRIPTION

1.1 INTRODUCTION

The intent of this proposal is to provide Cochise County FD and PD (“Cochise County”) an IP Microwave backhaul system that provides with adequate capacity and reliability. Motorola Solutions Inc., (“Motorola”) developed the proposed solution with Cochise County’s current requirements and future growth opportunities in mind. Motorola’s proposed solution for Cochise County provides them with the following unique differentiating benefits:

- Network layer redundancy by using a Ring Topology.
- Support for up to 310 Mbps using 2+0 configuration links
- Links designed for at least 99.999% availability.
- All indoor installation (where ever feasible) to facilitate easy maintenance.
- Network Monitoring software tools
- DC power system to support the proposed equipment.
- A turnkey implementation solution with training, maintenance and warranty.

Additionally, Motorola included the following components in this proposal based on the conversations with Cochise County FD and PD:

- Relocation of the existing PTP 800 HSB microwave link from SVRSC to Foot Hills site.
- Multimode fiber extension from the access room at Bisbee Dispatch center to the Dispatch backroom.

1.2 DESIGN CRITERIA

Cochise County’s existing microwave backhaul is TDM based. It lacks network layer protection. While implementing a new VHF/700/800MHz radio system and performing a Cisco IT infrastructure refresh, Cochise County identified some limitations on their aging microwave system and requested Motorola to provide a solution to upgrade it to an IP capable network. Due to this request Motorola identified county’s requirements and developed this backhaul solution.

Based on years of experience with various Microwave vendors, Motorola choose “Microwave Networks Inc” (MNI) as preferred vendor for implementing this solution. Motorola and MNI hosted a combined backhaul discussion with Cochise County to identify design requirements for this project. The following design criteria were identified during the discussion:

- Link availability: 99.999% or above
- Network protection: MPLS* and Ring topology
- Throughput: 310 Mbps with 2+0 configuration links
- Jitter, Latency and Packet loss: as per Motorola’s ASTRO 25 voice system requirements.
- Clear demarcation point to eliminate confusion in owernship and responsibilities

*Cochise County decided to provide MPLS protection using their existing Cisco equipment outside the scope of this proposal.

1.3 SYSTEM OVERVIEW

1.3.1 MNI Microwave

Motorola is proposing a full turnkey solution for 15 digital microwave links of MNI's Proteus MX 6 GHz and 11 GHz, 2 x 155 Mbps, 2+0, All Indoor (wherever feasible) Native IP and optional Native TDM. The Proteus MX provides full support for legacy and next generation IP/MPLS networks. Proposed design with Proteus MX Native IP with customer's MPLS transport allows maximizing the ability to support IP traffic featuring True No Single Point of Failure (NSPOF). Table 1.1 provides the details about each of the 15 links. Path profiles attached in the appendix provide complete details about the link performance.

Motorola has also included DC power system and battery backup for the proposed equipment (support for up to 8 hrs). Also, included in the proposal is FCC frequency co-ordination services.

Motorola's proposed solution is designed to carry only IP traffic. The proposed microwave can't be used to carry traditional TDM (DS1 or DS3) traffic unless Cochise County opts to purchase the optional TDM Cards for Proteus MX radios. Motorola's preliminary cutover plan indicates that few of the links require one on one replacement. Hence, Cochise County may experience downtime during the installation and cutover process. Once awarded, final detailed cutover plan will be discussed with Cochise County during the design review process.

Table 1.1: Proposed New Microwave links:

Path	Site name	TR / DR Antenna Size	TR /DR Antenna height (ft)	Radio model	Modulation / Throughput	Path length (mi)
1	DOS Cabezas B	6 ft	74	MX 6 GHz All Indoor HP 2+0	128 QAM / 2 x 155 Mbps	13.89
	Sequoia Farm	6 ft	25	MX 6 GHz All Indoor HP 2+0		
2	Douglas	6 ft	40	MX 6 GHz All Indoor HP 2+0	128 QAM / 2 x 155 Mbps	18.01
	Bernadino	6 ft	30	MX 6 GHz All Indoor HP 2+0		
3	Elfrida	8 ft / 6ft	40 / 15	MX 6 GHz All Indoor SD HP 2+0	128 QAM / 2 x 155 Mbps	37.2*
	DOS Cabezas B	6 ft / 6ft	50 / 20	MX 6 GHz All Indoor SD HP 2+0		
4	Juniper Point/Flats	6 ft	50	MX 6 GHz All Indoor HP 2+0	128 QAM / 2 x 155 Mbps	7.24
	Black Knob	6 ft	35	MX 6 GHz All Indoor HP 2+0		
5	Juniper Point/Flats	8 ft	50	MX 6 GHz All Indoor HP 2+0	128 QAM / 2 x 155 Mbps	25.97*
	Douglas	6 ft	40	MX 6 GHz All Indoor HP 2+0		
6	Juniper Point/Flats	6 ft	73	MX 6 GHz All Indoor HP 2+0	128 QAM / 2 x 155 Mbps	21.33
	Elfrida	6 ft	20	MX 6 GHz All Indoor HP 2+0		
7	Melody Lane	2.6 ft	25	MX 11 GHz All Indoor HP 2+0	128 QAM / 2 x 155 Mbps	3.33
	Black Knob	2.6 ft	25	MX 11 GHz All Indoor HP 2+0		
8	Quality Hill	2.6 ft	15	MX 11 GHz Split Mount HP 2+0	128 QAM / 2 x 155 Mbps	2.91
	Mule Mountain	2.6 ft	35	MX 11 GHz All Indoor HP 2+0		
9	SVRSC	2.6 ft	43	MX 11 GHz All Indoor HP 2+0	128 QAM / 2 x 155 Mbps	1.68
	SVPD	2.6 ft	31	MX 11 GHz All Indoor HP 2+0		
10	Texas Canyon	8 ft	173	MX 6 GHz All Indoor HP 2+0	128 QAM / 2 x 155 Mbps	23.85
	Sequoia Farm	6 ft	129	MX 6 GHz All Indoor HP 2+0		
11	Texas Canyon	6 ft	30	MX 6 GHz All Indoor HP 2+0	128 QAM / 2 x 155 Mbps	12.52

	Benson	6 ft	44	MX 6 GHz Split Mount HP 2+0		
12	Sequoia Farm	8 ft	64	MX 6 GHz All Indoor HP 2+0	128 QAM / 2 x 155 Mbps	17.09
	Wilcox	6 ft	50	MX 6 GHz All Indoor HP 2+0		
13	Texas Canyon	6 ft / 6 ft	50 / 20	MX 6 GHz All Indoor SD HP 2+0	128 QAM / 2 x 155 Mbps	33.86*
	SVRSC	6 ft / 6 ft	44 / 24	MX 6 GHz All Indoor SD HP 2+0		
14	SVPD	6 ft	40	MX 6 GHz All Indoor HP 2+0	128 QAM / 2 x 155 Mbps	19.86
	Mule Mountain	6 ft	50	MX 6 GHz All Indoor HP 2+0		
15	Black Knob	6 ft	35	MX 11 GHz All Indoor HP 2+0	128 QAM / 2 x 155 Mbps	2.16
	Passive	6 ft	10			
	Bisbee	6 ft	17	MX 11 GHz All Indoor HP 2+0		

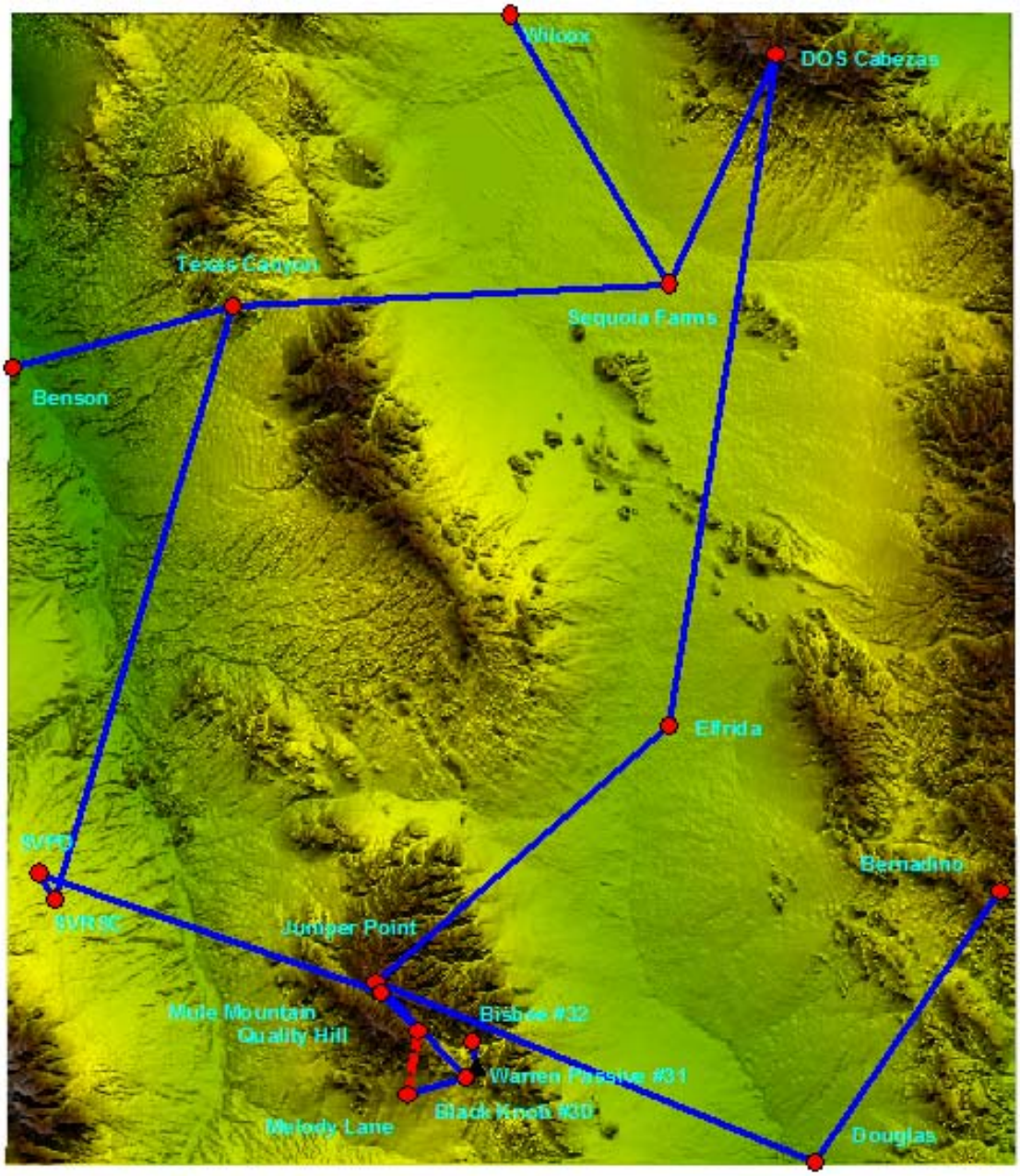
*These links are longer than Motorola's typical recommendation for 6 GHz band. However, these are also existing links.

The links have been engineered using 1/3" ARC NED USGS terrain data and have been designed with specific transmit power and antenna systems to provide a preliminary calculated annual two-way availability of 99.999% and above. All the paths (except the passive repeater path) achieved above 30 dB effective fade margin. The preliminary calculations for path performance are based on MNI's published $10E^{-6}$ receiver threshold levels as registered with the FCC. Bellcore Standard transmission engineering practices, formulas and topographic data are the foundation of these calculations. Assumed clearance criteria used to determine preliminary antenna centerlines are:

- Main: K = 4/3 @ 100% F1, k= 2/3 @ 30% F1
- Diversity: K = 4/3 @ 60% F1
- Clutter data based on the 2001-2006 NLCD database
- Additional tree growth factor of 20 ft

Cochise County Path Work 3-18-15 Final.d

Proposed new microwave topology is as shown below:

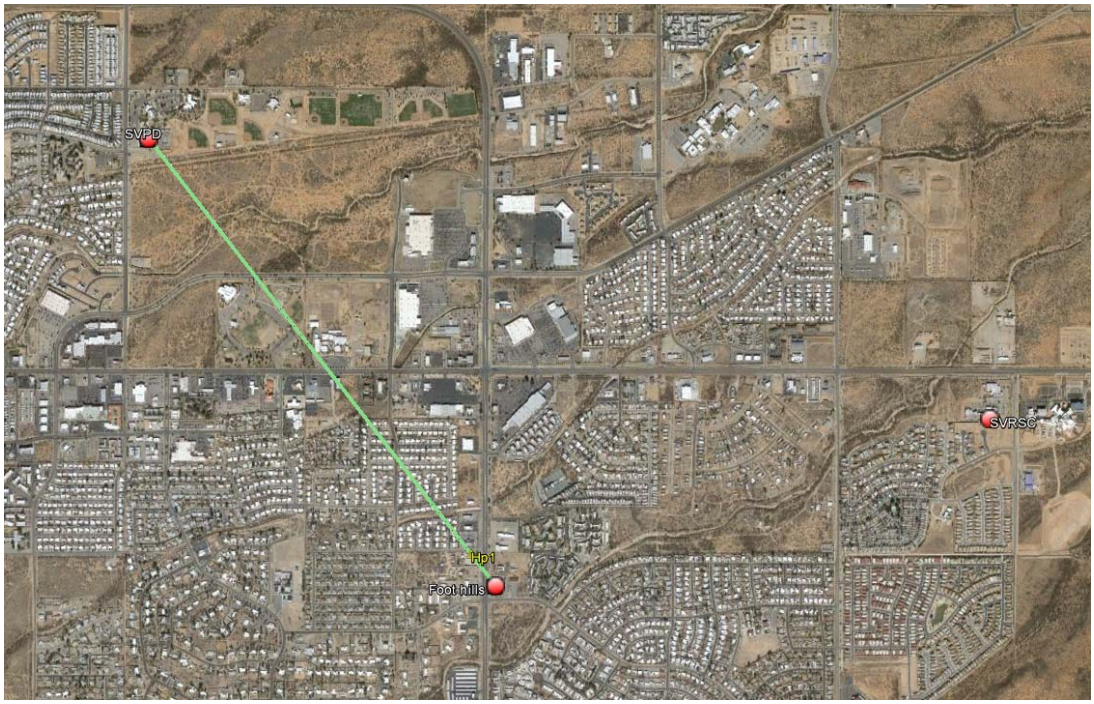


1.4 RELOCATE EXISITNG CAMBIUM MICROWAVE:

Proposal also includes the cost to relocate an existing PTP 800 HSB microwave link. Today, this link exists between Sierra Vista Regional Service Center (“SVRSC”) and Sierra Vista Police Department (“SVPD”). The equipment will be moved from SVRSC to Foot Hills site. Microwave dish at SVPD will be realigned to point to Foot Hills Site. Motorola has included FCC frequency co-ordination for this link.

Path	Site name	TR / DR Antenna Size	TR /DR Antenna height (ft)	Radio model	Modulation / Throughput	Path length (mi)
1	SVPD	2 ft	45	PTP 800 ODU 18GHz HP 1+1	256 QAM 177 Mbps	1.561
	Foot Hills	2 ft	20	PTP 800 ODU 18GHz HP 1+1		

Relocated microwave link is as shown below:



1.5 SYSTEM AND EQUIPMENT DESCRIPTION

1.5.1 MNI MICROWAVE Equipment

1.5.1.1 Proteus MX Features

Microwave Networks solution is capable to provide hybrid networks of native TDM and native Ethernet links up to 350 mbps total capacity per channel.

The key significant advantages are:

- 100% Fully Protected. No shared components between main and standby units. No single point of failure
- Forward Error Correction for improved receiver threshold.
- A powerful Transversal Equalizer to provide high tolerance to dispersive fades, and in some configurations, transmit pre-distortion and Trellis Coding for higher overall system gain.
- TDM: up to 32 x DS1 Native, and built in true DS1 path protection
- Ethernet: Up to 4 x 10/100/1000Base-T interfaces (FE/GbE), 1xGbE SFP 1000Base-X (Single Mode or Multi Mode), Auxiliary channels, support up to 10K byte Jumbo Frames.

- Network Management: SNMP based element manager software for integration into other NMS platforms, for comprehensive network management.
- Native IP and Native TDM
- Innovative Quality of Service features
- Integrated L2 Ethernet switch
- 6-350 Mbps per radio carrier
- 2.5-60 MHz channel bandwidth
- 6-38 GHz licensed frequency
- Adaptive Coding & Modulation (ACM)
- Encryption: AES 128/256
- RADIUS

Pay as You Grow- The Pay-as-you-grow model allows you to upgrade your capacity through a license key. There is no need to add new hardware. License keys can be purchased to enable increased capacity or additional features.

1.5.1.2 Proposed Proteus MX Microwave Radio Configuration

The proposed solution consists of Proteus MX 11 GHz and MX 6 GHz, all Indoor configuration, 2+0, Native IP, and optional Native 32 DS1, 4x10/100/1000Base-T interfaces (FE/GbE) in 30 MHz @ 2 x 155 Mbps capacity.

Optional DS1 inputs can be terminated on Telect DSX-1 cross-connect panels. The cross-connect panels provide monitor and circuit interrupting access points for the testing, monitoring, and patching of the DS1 circuits.

See Figures 2 and 3 for a description of the Proteus MX Signal Processing Unit (SPU).

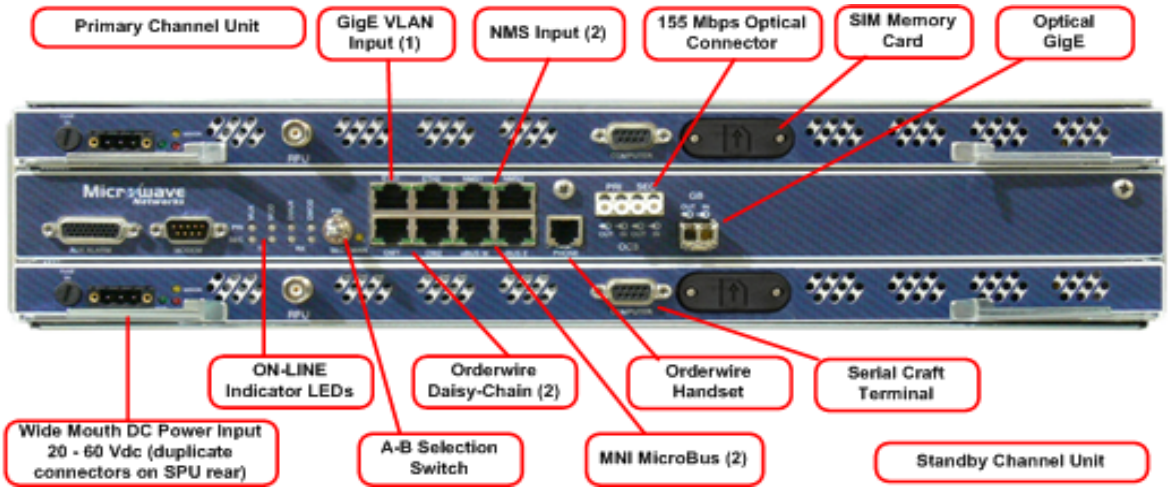


Figure 2- Proteus MX 2+0 Signal Processing Unit - Front

Figure 3- Proteus MX 2+0 Signal Processing Unit - Back

The Proteus MX All Indoor RFU provides high output power up to +33 dBm in a small footprint. The RFU designed to support multiple capacities, frequencies, modulation schemes, and configurations for various network requirements. It operates in the 6 GHz and 11 GHz bands and supports capacities of from 6-350 Mbps.

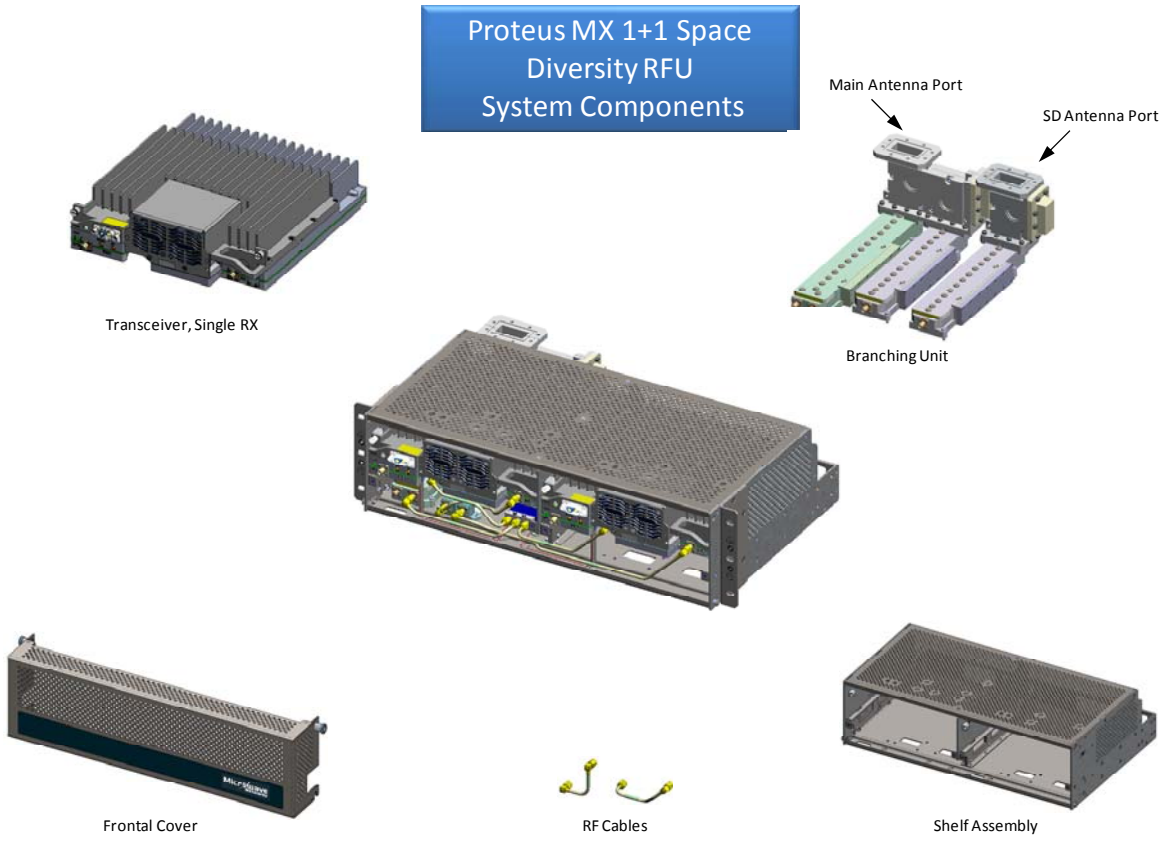


Figure 4 Proteus MX 1+1 Space Diversity Hot Standby Indoor RF Unit

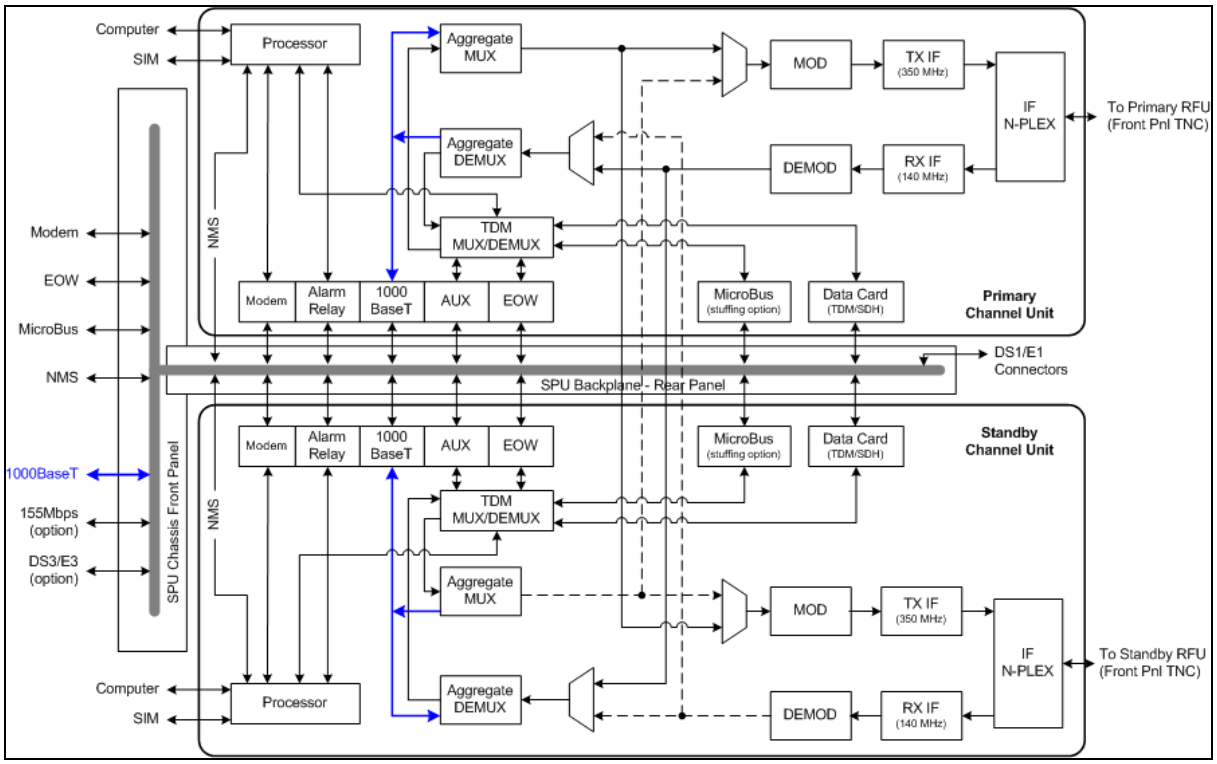


Figure 5 Proteus MX 1+1 Signal Processing Unit Block Diagram

1.5.1.3 Latency

One Way Average Latency

GigE latency	30MHz		30MHz		30MHz		30MHz	
	32QAM 103Mbps		64QAM 134Mbps		128QAM 166Mbps		256QAM 191Mbps	
Frames	Throughput (Mb)	Latency(uS)	Throughput (Mb)	Latency(uS)	Throughput (Mb)	Latency(uS)	Throughput (Mb)	Latency(uS)
64	120.0	505	156.6	492	193.7	470	224	456
128	111.5	512	146.4	505	180.4	480	209	469
256	107.7	1071	140.6	518	173.4	493	200	479
512	105.0	552	137.6	539	170.2	905	196	494
1024	104.0	604	135.9	580	167.9	549	193	527
1280	104.0	625	135.3	579	167.9	647	193	549
1518	103.1	643	135.3	588	167.1	583	193	571
10000	103.1	1533	134.7	1354	166.3	1214	192	1129

1.5.1.4 Antenna System

The antennas quoted are Andrew Corporation, VHLP and PAR Series antennas with radomes. Andrew VHLP and PAR antennas are FCC Part 101, Category A compliant. Connection to the antennas is accomplished with Andrew elliptical waveguide. Andrew's pressurized, elliptical waveguide is the preferred choice for most microwave antenna feeder systems because it provides excellent electrical characteristics. The waveguide is precision-formed from high-conductivity copper with a corrugated wall for excellent crush strength. It is lightweight, and has good flexibility for ease of handling. Andrew's recommended three (3) point grounding system will be used on all waveguide runs. Flexible CMR to CPR, 24 inch, flex waveguide transitions will be used to connect the waveguide to the radio terminal. This provides for ease of transition, improved aesthetics, and vibration and grounding isolation.

Andrew MT050 Series dehydrators were quoted at all sites for antenna system pressurization. The MT050 Series Automatic Pressurization Dehydrator is designed for reliable pressurization of elliptical waveguide and includes a self contained, completely automated air drying system that utilizes a pressure swing moisture absorption cycle to provide pressurized dry air while continuously purging the collected moisture to the atmosphere. This eliminates the need for replacement or manual reactivation of the desiccant and makes the MT050 Series dehydrators ideal for unattended operation even at remote sites. Shelves to wall mount the dehydrators have also been quoted

1.5.1.5 Spares

A full complement of spares for the Proteus MX radios is included with this proposal.

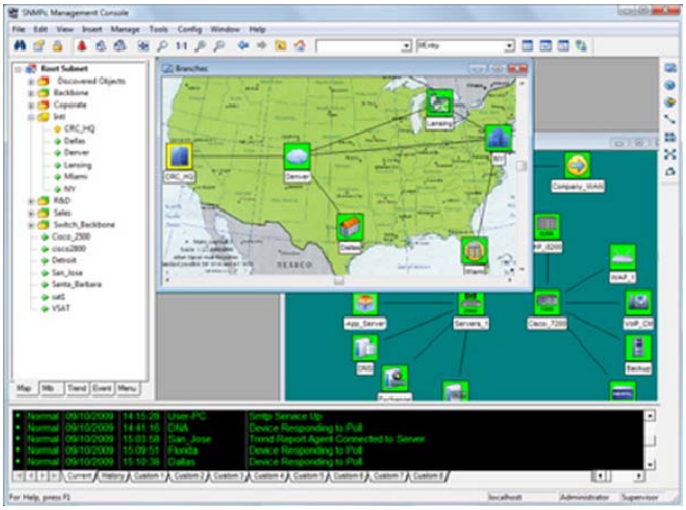
1.5.1.6 SPARCS- Network management System

Our proposal includes two SPARCS NMS Systems. SPARCS is a secure distributed Network Management System which delivers proactive real-time network visibility, administration and management of the Proteus MX radios as well as other SNMP devices such as power supplies, switches, multiplexers and routers.

Key Features:

- Monitors SNMP devices, WAN Links, Servers and Applications
- Internet Protocol Version 6 (IPv6) addressing
- Supports SNMP v1, v2c and secure SNMP v3
- Scalable, Distributed Architecture
- Email/Pager Event Notification
- Integrates with SPARCS web based reporting
- Live/Standby Servers with automatic failover
- Syslog event logging
- Remote Windows and JAVA Consoles
- Automated Network Discovery
- Programming & Scripting Interface
- Runs on Windows OS with modest hardware requirements. Completely open system allowing access to its data from external sources.
- Supports a multi-level hierarchical map. Each hierarchy can represent cities, buildings, or sub-networks. Imported bitmaps of geographic maps or floor plans, along with manual or automatic network placement, lets you create a layout that closely matches the actual network.
- Automatically lay out each map network as a tree, ring, or bus topology. Each map object uses a device specific or user selected icon, and the object color indicates the device status.
- The Map Navigation Tool Window displays the map as a tree for direct selection of objects. The Navigation tree also displays the current alarm status of each subnet to quickly locate failing devices.
- The map window Full Zoom feature automatically moves and zooms the view so that all devices are always visible in the window. The Pan/Zoom feature lets you select a region to zoom into from the complete set of devices in a view.
- Automatic network discovery agents find new nodes on the network and automatically place them on the root Map. Operators can then move the newly discovered node to any sub-map and configure how SNMPc will interact with the node.
- Employs distributed polling agent architecture to provide a high performance solution capable of monitoring networks from several hundred devices to tens of thousands. Remote software and Web based consoles provide network information to everyone who needs it.

- Provides remote access consoles through JAVA or Windows based client software. Each remote user is assigned a security level and unique view of the network based on their user login.
- Security and accountability through support for user audit trails. Any user access to the management platform or configuration changes are tracked and written to a log file. Alerts are automatically generated if an intrusion attempt is detected.
- Alarm events can be configured to automatically Email and or page appropriate service personnel.
- With the Trend Reporting capability, Polling Agents monitor all user-defined report variables for a learning period and calculate a baseline for typical patterns. Thereafter, the Polling Agents compare the actual polled data to the baseline and generate alarms when variables deviate excessively from the baseline. Polling Agents automatically adjust baselines as traffic patterns change. You can also manually configure alarm thresholds for any polled variable.
- Changes the color of map objects and performs other actions based on received events. Event Action Filters select the action to take when an event occurs.
- Automatically export Map Topology, trend statistics and event log entries to industry standard databases for further processing. Use familiar tools such as Microsoft Access to generate customized trend reports.
- Automatically generates scheduled daily, weekly, and monthly statistic reports. Report formats include graph, bar chart, distribution, and summary. They can be exported to a variety of destinations, including printers, files, or a WEB server.
- User defined custom menus directly perform commands without having to select MIB objects. Custom menus can display a MIB table; edit, graph or chart any set of MIB variables; set an SNMP MIB variable; or run an application program.



1.5.1.7 Power System

Our proposal includes Eltek Flatpack S DC redundant rectifiers to provide 48 VDC to the microwave radios and routers the Flatpack S rectifiers have efficiency up to 91%. This high efficiency translates into huge, ongoing AC power savings for the life of the system. The assembly will contain individual DC circuit breaker distribution panel(s), voltage and current continuous metering capabilities, high/low DC voltage disconnect switching and all necessary maintenance and management alarm and control functions. Chargers will be provided in redundant arrangement with units of identical capacity and type working on a load-sharing basis during normal operation. Solid state monitoring by the power board will be continuous and automatic switchover employed in the event of failure of

either unit. Upon switchover the surviving rectifier will be able to carry the entire site load plus growth and provide 24 hour recharge in the event of any loss of AC power.

1.5.1.8 Battery System

For battery backup with up to 8 hour, we are offering the PowerSafe V Front terminal batteries. PowerSafe V Front Terminal batteries are designed using proven gas recombination technology which removes the need for regular water addition by controlling the evolution of hydrogen and oxygen during charging. This technology provides the user with the freedom to use lead acid batteries in a wide range of applications. The minimal level of gas production allows battery installation in cabinets or on stands, in offices or near main equipment, thus maximizing space utilization and reducing battery accommodation costs. The batteries will be rack mounted in EIA standard relay racks for floor space conservation and have been sized to provide four hours of standby operation at full load plus 20% expansion. The DC distribution circuit breaker panels and the main -48 VDC ground (return) buss will be isolated in this rack as part of the Eltek power board assembly.

1.6 MULTI-PROTOCOL LABEL SWITCHING (MPLS)

1.6.1 Introduction

Motorola recommends a Layer 3 MPLS backhaul for Public Safety radio systems. This section provides details about the benefits of MPLS.

Based on Cochise County's request, Motorola has removed Juniper site routers from all proposed microwave sites. Motorola assumes that County's Cisco network infrastructure is capable of supporting all the requirements mentioned in section 1.2.4 Service Level Agreement.

1.6.2 Summary of Benefits

MPLS provides the ability to divert and route traffic around link failures, congestion, and bottlenecks, ensuring appropriate Quality of Service (QoS), network stability and availability.

- Implementing Traffic-Engineering
  - The ability to control where and how traffic is routed on the network, to manage capacity, prioritize different services, and prevent congestion
- Implementing Multi-Service Networks
  - The ability to deliver data transport services, as well as IP routing services, across the same packet-switched network infrastructure
- Improving network resiliency with MPLS Fast Reroute
- QoS
  - MPLS networks achieve greater Quality of Service: expect a higher standard of service such as reliability, speed, and voice quality
  - MPLS networks are able to assign priorities to the different packets based on what the labels say about that packet.

1.6.3 MPLS Description

The uniqueness of MPLS vs. a regular IP connection is its use of labeling. Voice and data get sent in packets so when those packets are received at the MPLS network, each packet is assigned a label.

1.6.3.1 MPLS Benefits in Detail

Faster Speed: Due to the labeling technology, the speed of performing lookups for destinations and routing is much faster than the standard IP table lookups non-MPLS routers have to perform.

QoS: This is a big one. MPLS networks achieve greater Quality of Service for their customers. Quality of Service (QoS) means exactly that – you can expect a higher standard of service such as reliability, speed, and voice quality. This is for a few reasons, one already mentioned above.

In addition, MPLS networks are able to assign priorities to the different packets based on what the labels say about that packet. Packets with greater priority, voice over data for example, are given more bandwidth allocation. A packet that which is not deemed as high priority is given less. Obviously sending documents online don't need to be assured of the same bandwidth required for someone who wants to have a conversation.

Faster Restoration: MPLS networks are also able to restore interrupted connections at a faster speed than typical networks.

24/7 Monitoring: Another benefit of MPLS is that the network is pro-actively monitored and managed at all times ensuring the extreme reliability and security.

1.6.3.2 Why do organizations elect to implement an MPLS wide area network?

In ninety percent of cases it is down to one thing alone, **Q**uality **o**f **S**ervice (QoS). MPLS enables the consolidation of applications onto a single network while providing the mechanism to prioritize the latency of individual applications within Application Classes. Organizations can optimize their Backhaul or wide area network usage based upon the types of applications communicating across it. The number of application classes varies upon the implementation. Each class has a different priority e.g. high priority is for the traffic that requires the lowest latency such as ASTRO or VOIP, medium priority for business critical applications that are not so latency critical and low for those that are unclassified.

An MPLS network offers organizations that need to prioritize mission critical/time sensitive applications a measurable benefit over traditional configurations in terms of performance. Traditionally the latency over the Backhaul/WAN is a combination of the distance and line speed; e.g. A 2 Mb/s line would be lower latency than a 1Mb/s line. With an MPLS based network although the connection bandwidth could still be 2 Mb/s the actual latency for the highest class will be considerably less as the core network bandwidth and router speeds are much greater. If a latency level lower than a traditional line is needed, then an MPLS network should be considered. However, for 99% of the cases, reduced latency is not the reason why an organization selects MPLS. Rather, it is the ability to not increase existing latency levels on time sensitive and mission critical applications by guaranteeing each has sufficient bandwidth.

In the case of ASTRO networks, besides the QoS advantages, MPLS provides the critical fast failover recovery during link failures that is required to prevent outages (site trunking), this is not available is typical routed configurations.

1.6.4 Service level agreement

Motorola's 700MHz and VHF radio communication systems require a high performance, high reliability link transport for site-to-site communications. The transport system is one of the primary enabling technologies for wide area two way radio communications. The performance and reliability of the transport system is vital to the overall performance of the Motorola Radio System.

Motorola's System architecture supports both Ethernet layer 2 and layer 3 backhaul networks. However, Motorola recommends a high availability (at least 99.999% or higher system availability) **layer 3** Ethernet backhaul to support ASTRO 25 Public safety voice traffic. A mix of layer 2 and layer 3 links with in the system is not supported. Also recommended, is an underlying MPLS transport layer with virtual routed private network (***VRPN) / L3VPN*** *layer-3* services for ASTRO site links. Motorola supports 802.1p priority. 3 or 4 QOS service levels are recommended with ASTRO voice at highest priority. Motorola will work with Cochise County in mapping ASTRO traffic TOS levels to various TOS/DSCP levels on the customer network. However, Cochise County is responsible for backhaul switch/router configuration based on the recommendations provided by Motorola. Cochise County is responsible for any necessary upgrades to the existing backhaul network. Proposed MNI Micorwave links only provide point-to-point Ethernet Bridge.

Motorola highly recommends using reliable routers (like Juniper, Cisco etc.,) at each site for network connectivity. Microwave and radio system design requires 2 routers / separate network interfaces at each site. Some of key performace requirements for Motorola's Radio system traffic are described in the sections below:

1.6.4.1 Ring Convergence and network protection:

In order to maintain wide area trunking feature on sites that utilize Ethernet Site Links, it is imperative that the provided backhaul does not queue or drop any packets from ingress demarcation to egress demarcation for more than the following amount of time (this would be considered a network backhaul outage):

- Repeater Site Links (including IP Trunked Simulcast Prime) : 2 seconds
- IP Trunked Simulcast Sub-Site Links: 800 milliseconds
- MCC7500 Console/NM Dispatch Site Links: 1.2 seconds

1.6.4.2 Performance of backhaul network:

Link Latency

- Trunked repeater site and trunked repeater site/dispatch site: 100ms with a late join constraint: Destination link latency – Source link latency < 85ms
- Dispatch site and Trunked repeater site: 70ms with a late join constraint: Destination link latency – Source link latency < 37ms
- IP trunked simulcast site to IP trunked simulcast site/dispatch site/ASR site and vice versa: 40ms

Jitter

- ASR Site, Dispatch Site or Prime site to Master site:
- In non-simulcast configurations the jitter budget needs to be kept to 20 ms* or less.
- Simulcast remote sub site to prime site to Master site:
- In simulcast situations, the subsite to prime site link can tolerate additional jitter. This link can support an additional 10 ms* or less jitter.

*Jitter limits mentioned above are a 99th percentile value and are based on Y.1541 method of calculation.

Packet Loss

Packet loss is defined per RFC 2680. The specification for end to end packet loss is no more than 0.01%. Packet loss is additive and can be combined among all the link segments.

Committed information Rate

Each proposed microwave link supports 310 Mbps using 2+0 link configuration. Based on 700MHz and VHF system architecture and the proposed microwave ring network topology, Motorola recommends allocating at least **10 Mbps** throughput on each link dedicated for ASTRO traffic.

ASTRO specific Link requirements are below:

1. Link between Dual router Hub site and Dual router ISR site with 6 Trunked FDMA voice channels and 6 Analog Conventional Channels: Minimum Required Link Speed 528 kbps. MTU Size for Low Priority Traffic: 300. Maximum Audio packet size (High priority traffic): 189
2. Link between Master site and Dual router ISR site with 6 Trunked FDMA voice channels and 6 Analog Conventional Channels: Minimum Required Link Speed 776 kbps. MTU Size for Low Priority Traffic: 400. Maximum Audio packet size (High priority traffic): 189
3. Link between Dual router Hub site and Dual router Dispatch site with 6 Trunked calls, 6 Conventional calls and 6 Analog Conventional Channels: Minimum Required Link Speed 664 kbps. MTU Size for Low Priority Traffic: 350. Maximum Audio packet size (High priority traffic): 189
4. Link between Master site and Dual router Prime site with 6 Trunked FDMA voice channels and 6 Analog Conventional Channels: Minimum Required Link Speed 728 kbps. MTU Size for Low Priority Traffic: 400. Maximum Audio packet size (High priority traffic): 189

1.6.5 Design Assumptions

Motorola's proposed solution is based up on the following design assumptions:

- All sites are assumed to have adequate AC power supply and generator back up. However, Motorola has included DC power system with battery backup for up to 8 hrs in this proposal.
- Proposed Microwave links are based on a preliminary path survey performed using software path calculation tools. Also, Motorola used information and pictures from Google Earth to check the viability of the proposed links. The proposed link performance is contingent up on the availability of space on the tower/building and existence of direct Line of Site (LOS) between the proposed dishes. Once awarded, Motorola will perform physical path survey to confirm the link's LOS nature. In case of major design changes due to any reason, a Change Order may be required.
- For the proposed Cambium Network's link migration, Motorola used clutter data based on the 2001-2006 NLCD database to model tree heights in the path. Also, a growth factor of 20ft is considered. In case of major design change due to taller trees in the path, a Change Order may be required.
- Motorola included 15ft obstructions in the path profile to model buildings in the path from Foot Hills site to SVPD Site. In case of major design change due to taller buildings in the path, a Change Order may be required.
- Motorola assumes that the existing 18 GHz PTP 800 microwave equipment at SVRSC and SVPD is in good working condition. However, for any reason if the existing equipment doesn't support the proposed relocation plan and upgrade, then a Change Order may be required.
- Motorola assumes that all sites will be accessible with 4- wheel drive vehicles.
- Cochise county equipment at all sites is assumed to be ready for IP backhaul by the installation start date. Proposed Microwave network doesn't have the capability to carry any DS1s or DS3s (TDM traffic). Also, since there are tower loading issues at some of the sites, Motorola can't install the new links in parallel with the existing links. Hence, Motorola intends to perform one on one replacement of the microwave links. Motorola's preliminary cutover plan indicates site downtime during installation of link # 2,5,11 and 15.
- Motorola has based the equipment list, Statement of Work and associated pricing on the information provided by Cochise County. Should design changes be required due to inadequate

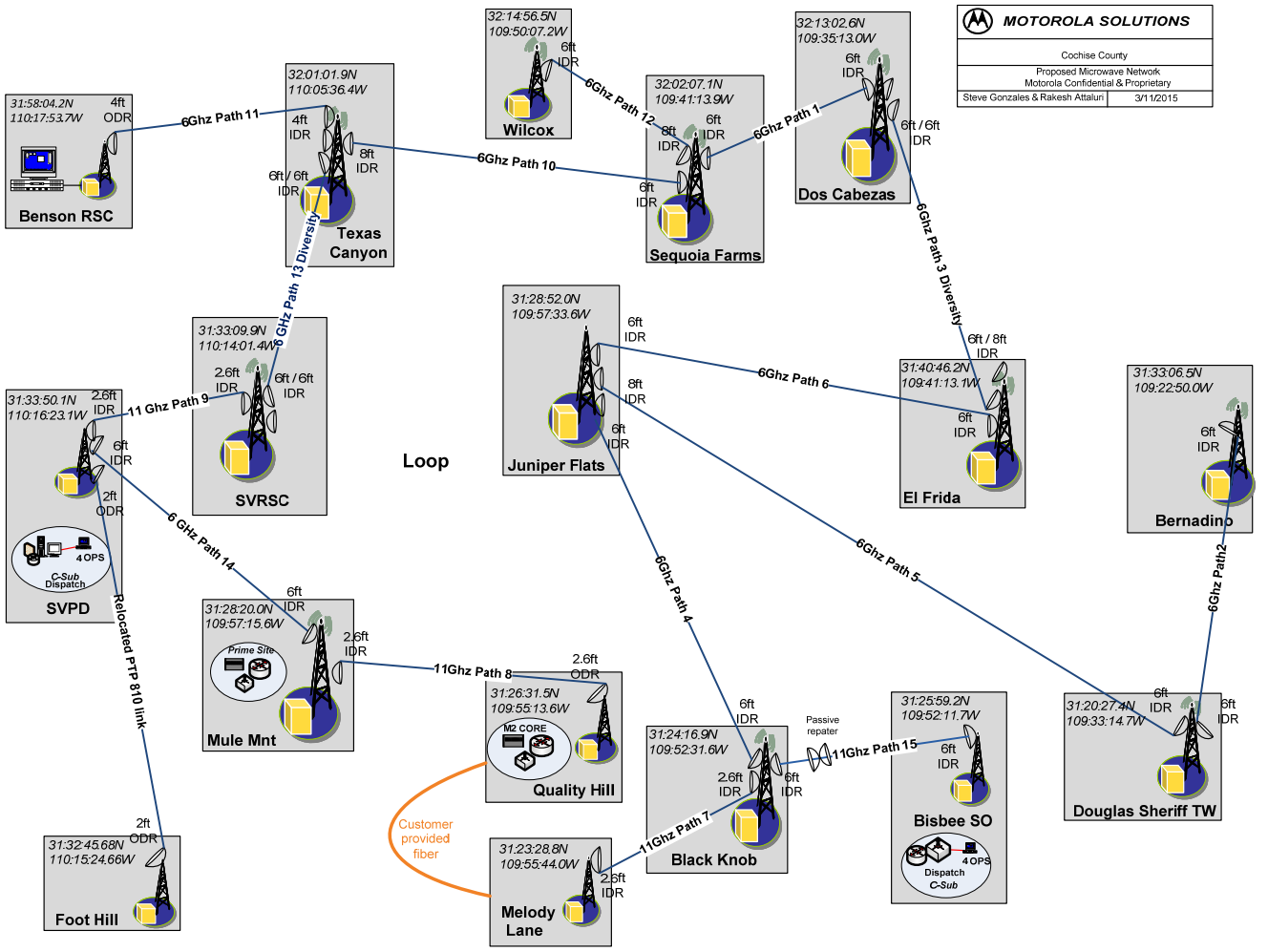
system specification, RF coverage, frequency plan issues, or inter-modulation and interference problems, a Change Order may be required.
Motorola has not included any allowance for the lease of telecommunications links such as land lines, DDS services, Fiber links, microwave links and the like. Motorola assumes that the installation and recurrent costs of all leased telecommunications links will be met by Cochise County.

- Motorola assumes that suitable radio licenses on suitable frequencies are available for all sites. We assume that these site frequency allocations will be available by the dates specified in the Implementation schedule. If this is not the case then a Change Order may be required.
- Motorola will perform FCC frequency co-ordination for the proposed Microwave links. However, Cochise County is responsible for the FCC application fees.
  Motorola assumes that all sites are free from interference from existing installed equipment, and the frequencies Cochise County provides will not cause inter-modulation or desensitization problems. If this is not the case then a Change Order may be required.

1.6.6 Design Demarcation

- Demarcation point for Motorola's proposed solution is the network interface port on the MNI Microwave modem. Cochise County is responsible for connectivity to their existing Cisco Switches/Routers at all sites.

SYSTEM DIAGRAM



SECTION 3

EQUIPMENT LIST

QTY	NOMENCLATURE	DESCRIPTION
		Proteus Microwave Radio Terminals
20	J06PE2-155F-YN0-EXBL	Proteus MX, 06 GHz Gigabit Ethernet Radio, 2+0, High TX Pwr,All Indoor, w/ ACM, Licensed for 310 (2 x 155) Mbps in 30 MHz Channel
3	J06VM1-0000-000--EM04	Proteus MX Microwave Radio 1+0 and 1+0 SD Terminal, 6 GHz, Full Indoor Radio, Non Protected, Gigabit Ethernet Ports, 310 (2 x 155) in 30 MHz Channel
1	J06VM1-0000-000--EM04	Proteus MX Microwave Radio 1+0 and 1+0 SD Terminal, 6 GHz, Full Indoor Radio, Non Protected, w/Opt GigE SM, 310 (2 x 155) in 30 MHz Channel
2	J11PE2-155F-YN0-EXBL	Proteus MX, 11 GHz Gigabit Ethernet Radio, 2+0, High TX Pwr,All Indoor, w/ ACM, Licensed for 310 (2 x 155) Mbps in 30 MHz Channel
2	J11PC2-155F-YN0-EXBL	Proteus MX, 11 GHz Gigabit Ethernet Radio, 2+0 Repeater, High TX Pwr,Split Mount, w/ ACM, Licensed for 310 (2 x 155) Mbps in 30 MHz Channel
1	J11PE2-155F-YN0-SXBL	Proteus MX, 11 GHz Gigabit Ethernet Radio, 2+0, High TX Pwr,All Indoor, w/Opt GigE SM, ACM, Licensed for 310 (2 x 155) Mbps in 30 MHz Channel
1	J06PC2-155F-NN0-EXBL	Proteus MX, 06 GHz Gigabit Ethernet Radio, Hot Standby Protected, High TX Pwr,Split Mount, Licensed for 155 Mbps in 30 MHz Channel
17	9900653-00	Fuse Panel, +/-48/24V
17	8209325-02	2.1 m (7') x 19" EIA Rack and Mount Radio
1	MOTSOLFEE	Motorola System Sulotion Fee
		Antennas and Installation Accessories for Proteus Microwave Radio Terminals
10	9901352-02	Std. Performance Antenna with radome, DP, Andrew, PARX6-59W-PXA/A, 1.8m, WB 6 GHz
2	9901352-00	Std. Performance Antenna with radome, DP, Andrew, PARX8-59W-PXA, 2.4m, WB 6 GHz
6	99999-MISC	High Performance Integrated Antenna, Andrew, VHLP800-11-6WH, 0.8m, 11 GHz
0	99999-MISC	High Performance Integrated Antenna, Andrew, VHLP4-11-6WH, 1.2m, 11 GHz
16	9900177-03	Standard Performance Antenna with radome, PAR6-59W-PXA, 1.8m, WB 6 GHz, CPR137G
2	9900340-00	Standard Performance Antenna with radome, Andrew, PAR8-59W-PXA, 2.4m, WB 6 GHz, CPR137G
34	9901433-00	Andrew, PM-SU4-63,Universal Pipe Mount, 4.5"x 63"
11	DS39099-90	6 GHz Termination Load
13	8708319-10	Waveguide Kit,6G,Expandable,Top,NP/HSB, CPR-137F
8	8708319-20	Waveguide Kit,6G,Expandable,NP/HSB,Intermediate Postion
4	8708293-11	Waveguide Kit, Expandable, 6 GHz, SD, Top, SPU-RFU Gap 5 RU
28	MLN6392A	6 GHz, 24" Flex Waveguide Jumper, CMR137 - UG344/U Flanges
2337	9901723-00	Eupen, EU63, Elliptical Waveguide, 5.85-7.125GHz - per foot
52	9901723-01	Eupen, EU63PCCPR137G, Elliptical Waveguide Connector
78	9901723-05	Eupen, GK-S63, Standard Grounding Kit, EU63
26	9901723-04	Eupen, PW63FF137, Pressure Window, EU63
26	9901723-06	Eupen, HG-64, Hoisting Grip, EU63

26	DS3354433	Andrew, Connector Re-attachment Kit, EW63
83	9901723-02	Eupen, BH-63, Butterfly Hangers, EU63
83	9901723-14	Eupen, HK-100-10, Hardware Kit, 3/8"x1"
78	9901723-08	Eupen, TR-SK12, Threaded Rod Support, 3/8"x12"
52	9901721-07	Eupen, AA-SL, Angle Adapters
26	9901723-03	Eupen, BA-63-1A, Waveguide Boot Assembly, EU63
2	8708271-06	Offset Mount Kit, 6 GHz, RM4, 5.90 - 7.125 GHz, RM4 ODU
2	9901515-01	Flexible Waveguide, Andrew, WR137 / CPR137G-CPR137F, 6 GHz, 36" (0.9m)
4	8708295-10	Waveguide Kit, Expandable, 11 GHz, HSB, Top, SPU-RFU Gap 5 RU
4	9520198A00	Flexible Waveguide, Andrew, WR90-CPR90F, 11GHz, 24"
319	9901721-00	Eupen, EU90, Elliptical Waveguide, 10.5-11.7 GHz - per foot
8	9901721-01	Eupen, EU90CPR90G, 11GHz Elliptical Waveguide Connector
12	9901721-02	Eupen, GK-S85, 11GHz Standard Grounding Kit, EU90
4	9901721-04	Eupen, PW90FF90, Pressure Window, EU90
4	9901721-03	Eupen, HG-85, 11GHz Hoisting Grip
4	9900102-00	Andrew, Connector Re-attachment Kit, EW90
13	9901721-06	Eupen, BH-85, Butterfly Hangers, EU90
13	9901723-14	Eupen, HK-100-10, Hardware Kit, 3/8"x1"
12	9901723-08	Eupen, TR-SK12, Threaded Rod Support, 3/8"x12"
8	9901721-07	Eupen, AA-SL, Angle Adapters
4	9901721-05	Eupen, BA-90-1A, Waveguide Boot Assembly, EU90
		Pressurization
13	9900869-02	Automatic Dehydrator, MT050B-81315, 19" rack mount, 3.0–5.0 psig, discrete alarm, 115/230 Vac, auto-detecting
13	9520384A00	Dehydrator Wall Shelf, MT-050 Series
14	DS6600C2	2 Port Gas Distribution Manifold
600	9900837-00	Andrew, LDF2-50, Heliax 3/8" Coaxial Cable, per foot
18	9900838-00	Andrew, L2PNM-HC, N-Male Connector for Heliax 3/8" Coaxial Cable
12	9900832-00	Andrew, 223158, Grounding Kit
12	9900839-01	Andrew, CA-TNRNF-V2, Right Angle Adapter
20	9900842-00	Andrew, 912MCLICK, Hangers for Heliax 3/8" Coaxial Cable
6	9900843-00	Andrew, 252026-10KT, Angle Adapter for Heliax 3/8" Coaxial Cable
20	9900845-00	Andrew, 252028-10KT, Double Stack Hardware
6	9900398-00	In Line N-Connector Surge Suppressor
		SNMPc Based Element Manager System, Customized for Microwave Networks Microwave Radios
1	8708270-00	Extended License (supports Extended License computer with unlimited remote logins and up to 10 polling agents)
		Installation and accessories for SNMP Based Element Manager System (Option)
1	9999-COMPUTR	Computer with licenses and monitor (Dell XPS-1A or similar, with Intel® Core™2 Duo, E6550, 2GB2 Dual Channel DDR2 SDRAM at 667 MHz, 20 inch widescreen display)
1	99999- NETHELAPP	Network Health App

2	NHMA	Two (2) iPads for mobile access to NHMA (One per Spares Depot)
		Spare Modules for Proteus Microwave Radio Terminals
		Note: Existing MX 6 GHz radios at Black Knob and Bisbee to be used as All Indoor spares
1	649-010-60055-xx	RFU RR1 Transceiver Module, Proteus MX, 11GHz
1	99999-MISC	RFU RR1 Space Diversity Transceiver Module, Proteus MX, 6GHz
1	636-11TRTR-0xx11-6000	ODU, MX/M/L, RMH, High Power, with Circular Interface, 11GHz, Tx Low, Tx/Rx Spacing: 'TRTR' MHz, 'x' = Frequency Specific Placeholder
1	636-11TRTR-1xx11-6000	ODU, MX/M/L, RMH, High Power, with Circular Interface, 11GHz, Tx High, Tx/Rx Spacing: 'TRTR' MHz, 'x' = Frequency Specific Placeholder
1	DS241122.105	Flatpack S Rectifier, 1000W (Spare)
1	634-06TRTRxP-xx11-6100	ODU, MX/M/L, RM4, Standard Power, with Rectangular Interface, 06GHz, Tx High, Tx/Rx Spacing: 'TRTR' MHz, 'x' = Frequency Specific Placeholder
		Power Systems
16	DSCTOM0402008	FLATPACK S POWER SYSTEM FRONT/REAR WIRE 80AMP MAX, -48 Vdc, 2RU, Dual AC, 2Pos, 10 pos breaker, 2 LVBD, Smartpack Contrlr
		Battery Systems
5	9900214-00	62 AH Battery, -48 VDC
7	99999-MISC	92 AH Battery, -48 VDC
3	99999-MISC	130 AH Battery, -48 VDC
18	99999-MISC	Battery tray
		Cambium Equipment
1	DSWB3659	FCC M/W FREQ COORDINATION SERVICE
8	DS01010419001	CABLE GROUNDING KITS FOR 1/4 INCH AND 3/8 INCH CABLE
2	DS07009304001	HOISTING GRIP FOR CNT-400 CABLE
1	Ds30010194001	50 OHM BRAIDED COAXIAL CABLE - 75 METER
2	DSWB3542	PTP800 MODEM CAPACITY CAP - 100 MBPS (PER UNIT)
2	DSWB3616A	COAXIAL CABLE INSTALLATION ASSEMBLY KITS (W/O SURGE ARRESTOR)
2	DSWB3657A	LPU END KIT PTP800 (1 KIT REQUIRED PER COAXIAL CABLE)
2	DSN000081L006	TNC MALE RIGHT ANGLE FOR CNT-400 BR
6	DSJ4859C	HP PROCURVE GIGABIT LX-LC MINI-GBIC

SECTION 4

STATEMENT OF WORK

4.1 INTRODUCTION

This Statement of Work (SOW) describes the deliverables to be furnished to Cochise County, ("Customer") and the tasks to be performed by Motorola Solutions, Inc. ("Motorola"), its subcontractors, and by Customer, in order to implement fifteen hops of 6 GHz and 11 GHz Proteus MX microwave as detailed in this proposal. This SOW provides the most current understanding of the work required by both parties to ensure a successful project implementation.

It is understood that this SOW may be revised during contract negotiations or during the Contract Design Review (CDR), and through any other Change Orders that may occur during the execution of the project. If there are changes to the Scope of Work, those changes must be reflected in this SOW before becoming binding on either party. This SOW will be an Exhibit to the Contract negotiated between Motorola and Customer. After contract execution, changes to the SOW must be made through the formal contract Change Order process as set forth in the Contract.

4.2 THE MOTOROLA TEAM

Motorola has organized project resources into a Systems Integration (SI) group to meet the needs of implementing sophisticated communications technology. This organization is involved from system conception to system completion.

The Motorola SI group assembles a team for each project to fulfill customer specific requirements. The Motorola SI group and Customer team members will form a partnership dedicated to addressing Customer's needs.

4.2.1 Motorola Project Manager

The Project Manager has full responsibility for the successful completion of the implementation life cycle from start to finish. The tasks of the Project Manager include, but are not limited to, the following:

- Act as main point of contact between Customer Project Manager and Motorola resources throughout the entire project Lifecycle.
- Full responsibility for supervising and coordinating day-to-day activities, deliverables, and milestone completions. Management of project Lifecycle requires periodic job site visits by the Project Manager at which time he/she will ensure work is being performed on time, as scoped, with the utmost quality, and professionalism by Motorola employees, agents, and subcontractors.
- Inspect site to ensure readiness for receiving and installing of site equipment.
- Inspect and maintain inventory of all received equipment to insure total delivery.
- Manage/supervise field installation and implementation teams to ensure that all on-site installation, integration, and optimization tasks are performed per contract requirements, industry best practices, and applicable standards and guidelines.
- Monitor the project to ensure that support resources are available as scheduled and as identified in the contract.

- Develop, track, manage, and communicate both orally and in writing (hard copy or electronic format) the project plan, schedule, status of deliverables, risk items, change orders, action items, punch list, and other reporting deliverables as set forth with the Customer.
- Schedule and participate with Customer in progress review meetings as deemed necessary throughout the project Lifecycle.
- Resolve deviations from the Project Schedule.
- Coordinate closely with Customer's Project Manager any needed interruptions to the existing system during implementation of the new system.
- Provide timely responses to issues related to project progress raised by the Customer Project Manager.
- Review and administer change control procedures with Customer Project Manager.

4.2.2 Motorola System Engineer

The Project Engineer has full responsibility for system design and performance and will work closely with Microwave Networks (MNI) engineers throughout the project. The Project Engineer's primary responsibility is to ensure the technical integrity of the system design to contract throughout the entire project life-cycle. The Project Engineer's other tasks include:

- Development of system installation documents (i.e. equipment list or bill of materials, system level, and floor and rack-up drawings).
- Define the Customer's communication needs, design the preliminary system and participate in the Detailed Design Review to finalize and confirm the system design to meet the Customer's requirements.
- Define Motorola and Customer demarcation points.
- Define technical requirements for interfacing with Motorola supplied equipment.
- Develop system channel plan.
- Complete the process of defining, documenting, and acquiring the Customer's approval of system programming and configuration.
- Responsible for the process of defining, documenting and executing functionality acceptance testing once the system is field installed.
- Develop and oversee execution of system acceptance tests and cutover plan that will balance the Customer's needs and approval with installation logistics.
- Provide systems and network engineering support throughout the implementation life-cycle

4.2.3 Motorola System Technologist

The System Technologist has the primary responsibility as the "hands-on" system expert. The System Technologist's tasks include:

- Work with the Project Engineer to ensure the integrity of the design during system installation, programming, optimization, and testing.
- Perform final system link testing and acceptance testing.

4.2.4 Motorola Customer Support Manager

The Customer Support Manager establishes the maintenance and service support program throughout the warranty and post-warranty periods. Other tasks include:

- Coordinates Motorola service support resources to enhance the quality of service delivery and to ensure the Customer's satisfaction over the life of their communication's system.

- Oversee the execution of the Customer's support contract (maintenance or warranty).
- Serves as the single point of contact for service issue resolution and escalation.

4.2.5 Canyon State Wireless

Canyon State Wireless is a Motorola Service Specialist. Canyon State Wireless, under subcontract to Motorola, will provide:

- Installation of all Motorola provided equipment.
- Relocation of the existing PTP 800 HSB microwave link from SVRSC to Foot Hills site.
- Multimode fiber extension from the access room at Bisbee Dispatch center to the Dispatch backroom
- Ongoing on-site 1st level support during 1st year warranty.

4.2.6 Microwave Networks Inc

Microwave Networks Inc (MNI) is a Motorola Systems Integration Partner. MNI, under subcontract to Motorola will perform the design, staging, configuration, optimization, acceptance testing, and system documentation of the microwave network.

4.3 GENERAL RESPONSIBILITIES OF MOTOROLA AND CUSTOMER

4.3.1 Motorola's General Responsibilities

- Conduct project kickoff meeting with Customer to review project design and finalize requirements.
- Perform the installation of the Motorola-supplied equipment.
- Schedule the implementation in agreement with Customer.
- Coordinate the activities of all Motorola subcontractors under this contract.
- Administer safe work procedures for installation.
  - Provide Customer with the appropriate system interconnect specifications.
  - Define link specifications for each link required for the proposed system.
- Optimize equipment and verify that all equipment is operating properly and that all electrical and signal levels are set accurately.
- Verify communication interfaces between devices for proper operation.
- Test features and functionality are in accordance with manufacturers' specifications.
- Verify the operational functionality and features of the individual subsystems and the system supplied by Motorola, as contracted.
- If any major task as contractually described fails, repeat that particular task after Motorola determines that corrective action has been taken.
- Document all issues that arise during the acceptance tests.
- Document the results of the acceptance tests and present to Customer for review.
- Resolve any punch list items before Final System Acceptance.
  - Motorola is not responsible for bringing Customer facilities to R56-compliant guidelines. Motorola will install the proposed equipment abiding by R56 guidelines, ensuring proper surge protection and grounding within 10 feet of the Motorola provided equipment.

4.3.2 Customer General Responsibilities

Customer will assume responsibility for the installation and performance of all other equipment and work necessary for completion of this project that is not provided by Motorola. Customer's general responsibilities include the following:

- Customer will provide a dedicated delivery point, such as a warehouse, for receipt, inventory, and storage of equipment prior to delivery to the site.
- Coordinate the activities of all Customer's vendors or other contractors.
- Obtain all licensing, site access, or permitting required for project implementation.
- Provide clear and stable access to the sites for transporting electronics and other materials. Sufficient site access must be available for trucks to deliver materials under their own power and for personnel to move materials to the facility without assistance from special equipment.
- Provide rack space and desk space (including desk furniture, as needed) for the System equipment at the remote sites and dispatch centers.
- Any required system interconnections not specifically outlined here will be provided by the Customer, per Motorola specifications. Test results to confirm specification compliancy are required prior to equipment installation. Note: These may include dedicated phone circuits, microwave links, or other types of connectivity.

4.3.3 Engineering Design Assumptions

- All sites are assumed to have adequate AC power supply and generator back up. However, Motorola has included DC power system with battery backup for up to 8 hrs in this proposal.
- Proposed Microwave links are based on a preliminary path survey performed using software path calculation tools. Also, Motorola used information and pictures from Google Earth to check the viability of the proposed links. The proposed link performance is contingent up on the availability of space on the tower/building and existence of direct Line of Site (LOS) between the proposed dishes. Once awarded, Motorola will perform physical path survey to confirm the link's LOS nature. In case of major design changes due to any reason, a Change Order may be required.
- For the proposed Cambium Network's link migration, Motorola used clutter data based on the 2001-2006 NLCD database to model tree heights in the path. Also, a growth factor of 20ft is considered. In case of major design change due to taller trees in the path, a Change Order may be required.
- Motorola included 15ft obstructions in the path profile to model buildings in the path from Foot Hills site to SVPD Site. In case of major design change due to taller buildings in the path, a Change Order may be required.
- Motorola assumes that the existing 18 GHz PTP 800 microwave equipment at SVRSC and SVPD is in good working condition. However, for any reason if the existing equipment doesn't support the proposed relocation plan and upgrade, then a Change Order may be required.
- Motorola assumes that all sites will be accessible with 4- wheel drive vehicles.
- Cochise county equipment at all sites is assumed to be ready for IP backhaul by the installation start date. Proposed Microwave network doesn't have the capability to carry any DS1s or DS3s (TDM traffic). Also, since there are tower loading issues at some of the sites, Motorola can't install the new links in parallel with the existing links. Hence, Motorola intends to perform one on one replacement of the microwave links. Motorola's preliminary cutover plan indicates site downtime during installation of link # 2,5,11 and 15.
- Motorola has based the equipment list, Statement of Work and associated pricing on the information provided by Cochise County. Should design changes be required due to inadequate system specification, RF coverage, frequency plan issues, or inter-modulation and interference problems, a Change Order may be required.

Motorola has not included any allowance for the lease of telecommunications links such as land lines, DDS services, Fiber links, microwave links and the like. Motorola assumes that the installation and recurrent costs of all leased telecommunications links will be met by Cochise County.

Motorola assumes that suitable radio licenses on suitable frequencies are available for all sites. We assume that these site frequency allocations will be available by the dates specified in the Implementation schedule. If this is not the case then a Change Order may be required.

- Motorola will perform FCC frequency co-ordination for the proposed Microwave links. However, Cochise County is responsible for the FCC application fees.

  Motorola assumes that all sites are free from interference from existing installed equipment, and the frequencies Cochise County provides will not cause inter-modulation or desensitization problems. If this is not the case then a Change Order may be required.

4.4 SITE DEVELOPMENT/SITE PREPARATION

Customer shall be responsible for all civil work and site improvements that are not specifically listed as a Motorola responsibility. This work must be completed prior to the start of equipment installation.

Motorola Responsibilities

- Provide electrical and power requirements for Motorola provided equipment.
- Provide heat load for Motorola provided equipment.
- Provide equipment rack drawings and layout for the Customer space planning.

Customer Responsibilities

- Secure site lease/ownership, zoning, permits, regulatory approvals, easements, power, and Telco connections.
- Provide towers or antenna mounting structures, structural analysis of existing towers, and antenna mounting locations in accordance with approved design.
- Supply adequately sized electrical service and emergency backup generator including the installation of conduit, circuit breakers, outlets, etc., at each equipment location within reach of AC line cords (typically 6-8').
  - Motorola has provided a soft-wire, rackmount, uninterruptible power supply (UPS) to provide approximately 30 minutes run time for supplied equipment at each location.
- Supply interior building cable trays, raceways, conduits, and wire supports to provide for obstruction-free area for the cable run between equipment locations.
- Provide coaxial wall feedthrough and wall/roof penetrations as required.
- Provide adequate HVAC, lighting, and surge protection based upon Motorola's Standards and Guidelines for Communication Sites (R56).
- Provide floor space and desk space for the system equipment at the Customer provided facilities. Each rack shall be provided a minimum 24-inch x 24-inch footprint with a 36-inch clearance in the front and back.
- Ceiling height should be a minimum of nine feet and cable tray heights should be a minimum of eight feet in the equipment rooms in order to accommodate 7-foot, 6-inch equipment racks.
- Provide grounding system that meets Motorola's Standards and Guidelines for Communication Sites (R56) and supply a single point system ground, of five ohms or less, to be used on all equipment supplied under the Contract.
- Resolve any environmental issues including, but not limited to, asbestos, structural integrity of the site, and any other building risks. (Resolve environmental or hazardous material issues).
- Supply all permits as required.
- Complete all Customer deliverables in accordance with the approved project schedule.

Completion Criteria

- All sites are ready for equipment installations in compliance with Motorola's Standards and Guidelines for Communication Sites (R56).

4.5 SITE READINESS SURVEY

Prior to starting any equipment installations, Motorola and Customer shall conduct a site readiness review at each site to examine existing work, or work performed by others, that is required to support the new radio system. The site readiness review documents any conditions that will prevent start of equipment installation work to be performed by Motorola. Customer shall be responsible for correcting any deficiencies found during the site readiness review affecting personnel or equipment safety prior to system installation. Site readiness survey shall include at a minimum the following:

- Document actual site conditions and proposed equipment locations as compared to design and implementation assumptions.
- Review work performed by others, and identify work necessary to be completed prior to start of equipment installations.
- Create site evaluation report to verify site meets or exceeds requirements, as defined in Motorola's Standards and Guidelines for Communication Sites (R56).
- Prepare Site Readiness report per site consisting of all above reported findings.

4.6 IMPLEMENTATION SERVICES

Implementation services included as part of this proposal will occur between normal business hours, Monday – Friday, 8:30am-5pm. Should Customer require services to occur during non-business hours, additional costs may apply and will be handled via the change order process.

The installation pricing assumes that existing building facilities have sufficient heating, ventilation and air conditioning (HVAC), space, necessary power and back-up power, along with required cable routing facilities and penetrations to interconnect the hardware. Facility improvements have not been included in this proposal.

4.7 PROJECT LIFECYCLE PHASES AND RESPONSIBILITIES

Based on many years of experience, Motorola has developed a project implementation methodology that identifies major project phases–Contract/Project Initiation (Award), Detailed Design Review, Order Processing, Manufacturing and Staging, Installation, System Optimization, Acceptance Testing, and Project Finalization. Each phase follows a Work Breakdown Structure (WBS) that clearly identifies the work to be performed during this project.

Throughout the duration of this project, Motorola will provide the equipment and services within each applicable phase as described within this proposal. Detailed descriptions of the specific tasks associated with the individual phases are contained in the following sections.

4.8 CONTRACT

4.8.1 Contract Award (Milestone)

- Customer and Motorola execute the contract; both parties receive all the necessary documentation.

4.8.2 Contract Administration

Motorola Responsibilities

- Assign a Single Point of Contact with authority to make project decisions.
- Assign resources necessary for project implementation.
- Set up the project in the Motorola information system.
- Schedule the project kickoff meeting with Customer.

Customer Responsibilities

- Assign a Single Point of Contact responsible for Customer signed approvals.
- Assign other resources necessary to ensure completion of project tasks for which Customer is responsible.

4.8.3 Project Kickoff

Motorola Responsibilities

- Conduct a project kickoff meeting during the Contract Design Review (CDR) phase of the project.
- Ensure key project team participants attend the meeting.
- Introduce all project participants attending the meeting.
- Review the roles of the project participants to identify communication flows and decision-making authority between project participants.
- Review the overall project scope and objectives with Customer.
- Review the resource and scheduling requirements with Customer.
- Review the Project Schedule with Customer to address upcoming milestones and/or events.
- Review the teams' interactions (Motorola and Customer), meetings, reports, milestone acceptance, and Customer's participation in particular phases.

Customer Responsibilities

- Customer's key project team participants attend the meeting.
- Review Motorola and Customer Responsibilities.

4.9 CONTRACT DESIGN REVIEW (CDR)

4.9.1 Review Contract Design

Motorola Responsibilities

- Meet with Customer project team (This may be combined with the project kickoff meeting.)
- Review the operational requirements and the impact of those requirements on various equipment configurations.
- Establish a defined baseline for the system design and identify any special product requirements and their impact on system implementation.
- Review the System Design, Statement of Work, Project Schedule, and Acceptance Test Plans, and update the contract documents accordingly.
- Discuss the proposed Cutover Plan and methods to document a detailed procedure.
- Submit design documents to Customer for approval. These documents form the basis of the system, which Motorola will manufacture, assemble, stage, and install.

- Establish demarcation point to define the connection point between the Motorola-supplied equipment and Customer-supplied link(s) and external interfaces (Customer is responsible for supplying links).
- Conduct site evaluations, if not previously conducted, to capture site details of the system design and to determine site readiness.

Customer Responsibilities

- Customer's key project team participants attend the meeting.
- Make timely decisions, according to the Project Schedule.
- Provide documentation on existing networks, equipment, and wiring diagrams as required to facilitate the interface and wiring plan for the provided equipment.

Completion Criteria

- Complete Design Documentation, which may include updated System Description, Equipment List, system drawings, or other documents applicable to the project.
- Incorporate any deviations from the proposed system into the contract documents accordingly.
- The system design is "frozen" in preparation for subsequent project phases such as Order Processing and Manufacturing.
- A Change Order is executed in accordance with all material changes resulting from the Design Review to the contract.

4.9.2 Design Approval (Milestone)

- Customer executes a Design Approval milestone document.

4.10 ORDER PROCESSING

4.10.1 Process Equipment List

Motorola Responsibilities

- Validate Equipment List by checking for valid model numbers, versions, compatible options to main equipment, and delivery data.
- Enter order into Motorola's Customer Order Fulfillment (COF) system.
- Create Ship Views, to confirm with Customer the secure storage location(s) to which the equipment will ship. Ship Views are the mailing labels that carry complete equipment shipping information, which direct the timing, method of shipment, and ship path for ultimate destination receipt.
- Create equipment orders.
- Reconcile the equipment list(s) to the Contract.
- Procure third-party equipment if applicable.

Customer Responsibilities

- Approve shipping location(s).

4.11 MANUFACTURING AND STAGING

4.11.1 Manufacture and Procure Equipment

Motorola Responsibilities

- Manufacture the Motorola equipment per final design.
- Procure any 3rd party equipment per final design.

Customer Responsibilities

- Procure Customer supplied equipment meeting Motorola specifications when applicable.

4.11.2 Stage System

Motorola Responsibilities:

- MNI will perform factory staging and testing of the microwave network prior to shipping to the field

Customer Responsibilities:

- Provide information on existing system interfaces as may be required.
- Provide information on room layouts or other information necessary for the assembly to meet field conditions.
- Review and approve proposed Factory Acceptance Test Plan.

4.11.3 Perform Staging Acceptance Test Procedures

Motorola Responsibilities:

- Test and validate system software and features.
- Functional testing of standard system features.
- Conduct site and system level testing.
- Power-up site equipment and perform standardized functionality tests.
- Perform system burn-in 24 hours a day during staging to isolate and capture any defects.
- Perform Factory Acceptance Test Plan.

Customer Responsibilities:

- Attend Factory Acceptance Testing if desired.
- Pay for travel, lodging, meals, and all incidental expenses for Customer personnel and representatives to witness the Factory Acceptance Testing. Completion Criteria:
- Approve Factory Acceptance Testing.

4.11.4 Ship Equipment to Field

Motorola Responsibilities:

- Pack system for shipment to final destination.
- Arrange for shipment to the field.

Customer Responsibilities:

- None.

Completion Criteria:

- Equipment ready for shipment to the field.

4.11.5 CCSi Ship Acceptance (Milestone)

- All equipment shipped to the field.

4.12 SYSTEM INSTALLATION

Work described in this section is to be performed at Customer's site locations. Site work will be performed in a progressive and contiguous manner without work stoppage due to non-Motorola related tasks. All additional mobilizations, beyond the initial one, that are not directly caused by Motorola, its subcontractors or Motorola provided equipment, will require a Change Order prior to the additional mobilizations.

4.12.1 Microwave Subsystem

Motorola will install and commission fifteen (15) hops of 6 GHz and 11 GHz Proteus MX radios as detailed in the System Description and Equipment List.

Motorola Responsibilities

Install the microwave subsystem in accordance with the approved design documents and equipment list in provided shelter and tower space.

- Perform Transmission and System Engineering.
- Perform Path Survey.
- Perform Frequency Coordination and file PCN.
- Prepare Frequency Coordination Applications.
- Provide transportation for equipment and materials from Microwave Networks factory to the final destination. - Freight charges per terms of Purchase Order.
- Deliver all proposed equipment to the site locations from the local Customer warehouse and inventory for discrepancies.
- Furnish and install antenna Pipe Mount(s).
- Install all antenna and transmission line.
- Install Wall Feed-Thru's for waveguide Transmission line.
- Install chargers.
- Furnish and install DC Power and Ground wiring to Microwave Networks provided racks per specifications.
- Label DC breakers / fuses and newly installed wiring.
- Install cable and test all radio and auxiliary equipment proposed.
- Install and test Order Wire.
- Install and test Alarm master.
- Verify alarm system database is functional.
- De-Installation of existing Microwave Networks radios, waveguide, antennas and power system (15 radio racks and 32 antennas). Includes battery and waveguide disposal
- Relocate an existing PTP 800 HSB microwave link. Today, this link exists between Sierra Vista Regional Service Center ("SVRSC") and Sierra Vista Police Department ("SVPD"). The equipment will be moved from SVRSC to Foot Hills site. Microwave dish at SVPD will be realigned to point to Foot Hills Site. Motorola has included FCC frequency co-ordination for this link.
- Multimode fiber extension from the access room at Bisbee Dispatch center to the Dispatch backroom.

Microwave Installation Demarcation Point

Demarcation point for Motorola's proposed solution is the network interface port on the MNI Microwave modem. Cochise County is responsible for connectivity to their existing Cisco Switches/Routers at all sites.

Customer Responsibilities

- Provide suitable openings, channels, or ducts for cables and conductors for routing from floor-to-floor and from room-to-room.
- Furnish and install Waveguide Bridge.
- Furnish and install Waveguide Messenger.
- Provide AC power and breakers as required.
- Furnish and install adequate AC receptacle within 6 feet (2 meters) of the battery charger rack.
- Furnish & Install D66 block or similar and connect to the alarm remote, to terminate alarms at each site.
- Provide mounting mast at Quality Hill.
- Provide transportation to any site not accessible by 4-wheel drive vehicles.

4.12.2 Equipment Installation Complete

- Motorola provided equipment installations completed and accepted by Customer.

4.12.3 System Installation Acceptance (Milestone)

- All equipment installations are completed and accepted by Customer.

4.13 SYSTEM OPTIMIZATION

4.13.1 Optimize System

Motorola Responsibilities

- Perform the console programming, based on the console templates designed and approved during the CDR phase.
- Verify that all equipment is operating properly and that all electrical and signal levels are set accurately.
- Verify that all audio and data levels are at factory settings.
- Check audio and data levels to verify factory settings.
- Verify communication interfaces between devices for proper operation.
- Test features and functionality are in accordance with manufacturers' specifications and that they comply with the final configuration established during the CDR/system staging.
- Setup the consoles to perform the dispatching operation.

Customer Responsibilities

- Provide access/escort to the sites.
- Provide required radio ID and alias information to enable alias database setup for interface to console.

4.13.2 Optimization Complete

- System optimization is completed. Motorola and Customer agree that the equipment is ready for acceptance testing.

4.14 TRAINING

4.14.1 Perform Training

Additionally, Motorola included on-site training for up to 6 students in the proposed solution.

Motorola Responsibilities:

- Finalize training schedules purchased as part of this project with the Customer Project Manager.
- Conduct the training classes outlined in the Training Plan.

Customer Responsibilities:

- Attend training classes.
- Provide access to equipment and facilities for a suitable training environment.

4.15 AUDIT AND ACCEPTANCE TESTING

4.15.1 Perform Functional Acceptance Testing

Motorola Responsibilities

- Motorola will run an Ethernet link test (Ping test and Y.1564 Suite-1) on all 15 new Microwave links for at least 24 hrs. The links will be tested for CIR of up to 310 Mbps.
- Radio system testing is not included in the proposed scope. End to end Ethernet connectivity testing through Cisco Network equipment for radio system application is not included in the proposed scope.
- If any major task as contractually described fails, repeat that particular task after Motorola determines that corrective action has been taken.
- Document all issues that arise during the acceptance tests.
- Document the results of the acceptance tests and present to the Customer for review.
- Resolve any minor task failures before Final System Acceptance.

Completion Criteria

- Successful completion of the functional testing.
- Customer approval of the functional testing.

4.15.2 System Acceptance (Milestone)

- Customer approves the completion of all the required tests.
- Warranty Commences.

4.16 FINALIZE

4.16.1 Cutover

Motorola Responsibilities:

- Motorola and Customer develop a mutually agreed upon cutover plan based upon discussions held during the CDR.
- During cutover, follow the written plan and implement the defined contingencies, as required.
- Conduct cutover meeting(s) with user group representatives to address both how to mitigate technical and communication problem impact to the users during cutover and during the general operation of the system.

Customer Responsibilities:

- Attend cutover meetings and approve the cutover plan.
- Notify the user group(s) affected by the cutover (date and time).

Completion Criteria:

- Successful migration from the old system to the new system.

4.16.2 Resolve Punch list

Motorola Responsibilities

- Resolve Motorola assigned punch list items as part of Final Acceptance.

Customer Responsibilities

- Assist Motorola with resolution of identified punch list items by providing support, such as access to the sites, equipment and system, and approval of the resolved punch list item(s).
- Resolve Customer assigned punch list items.

4.16.3 Transition to Service/Project Transition Certificate

Motorola Responsibilities

- Review the items necessary for transitioning the project to warranty support and service.
- Provide a Customer Support Plan detailing the warranty and post warranty support, if applicable, associated with the Contract equipment.
- Provide additional information regarding post warranty support, included in the Warranty/Post Warranty section of this document.

Customer Responsibilities

- Participate in the Transition Service/Project Transition Certificate (PTC) process.

4.16.4 Finalize Documentation

Motorola Responsibilities

- Provide an electronic as-built system manual on a Compact Disk (CD). The documentation will include the following:
  - System Level Diagram.
  - Site Equipment Rack Configurations.

- ATP Test Checklists.
- Equipment Inventory List.
- Console Programming Template
- Operator, Product Manuals

Drawings are created utilizing AutoCAD design software and will be delivered in Adobe PDF format. All other system manual documents converted from native format to Adobe PDF format to be included on the System Manual CD.

Customer Responsibilities

- Receive and approve all documentation provided by Motorola.

4.16.5 Final Acceptance (Milestone)

- All deliverables completed, as contractually required.
- Final System Acceptance received from Customer.

4.17 PROJECT ADMINISTRATION

4.17.1 Project Status Meetings

Motorola Responsibilities

- Motorola Single Point of Contact, or designee, will attend all project status meetings with Customer, as determined during the CDR.
- Meetings may be via teleconference or at Customer location depending on the phase of the project and agenda requirements.
- Record the meeting minutes and supply the report.
- The agenda will include the following:
  - Overall project status compared to the Project Schedule.
  - Product or service related issues that may affect the Project Schedule.
  - Status of the action items and the responsibilities associated with them, in accordance with the Project Schedule.
  - Any miscellaneous concerns of either the Customer or Motorola.

Customer Responsibilities

- Attend meetings.
- Respond to issues in a timely manner.

4.17.2 Progress Milestone Submittal

Motorola Responsibilities

- Submit progress (non-payment) milestone completion certificate/documentation.

Customer Responsibilities

- Approve milestone, which will signify confirmation of completion of the work associated with the scheduled task.

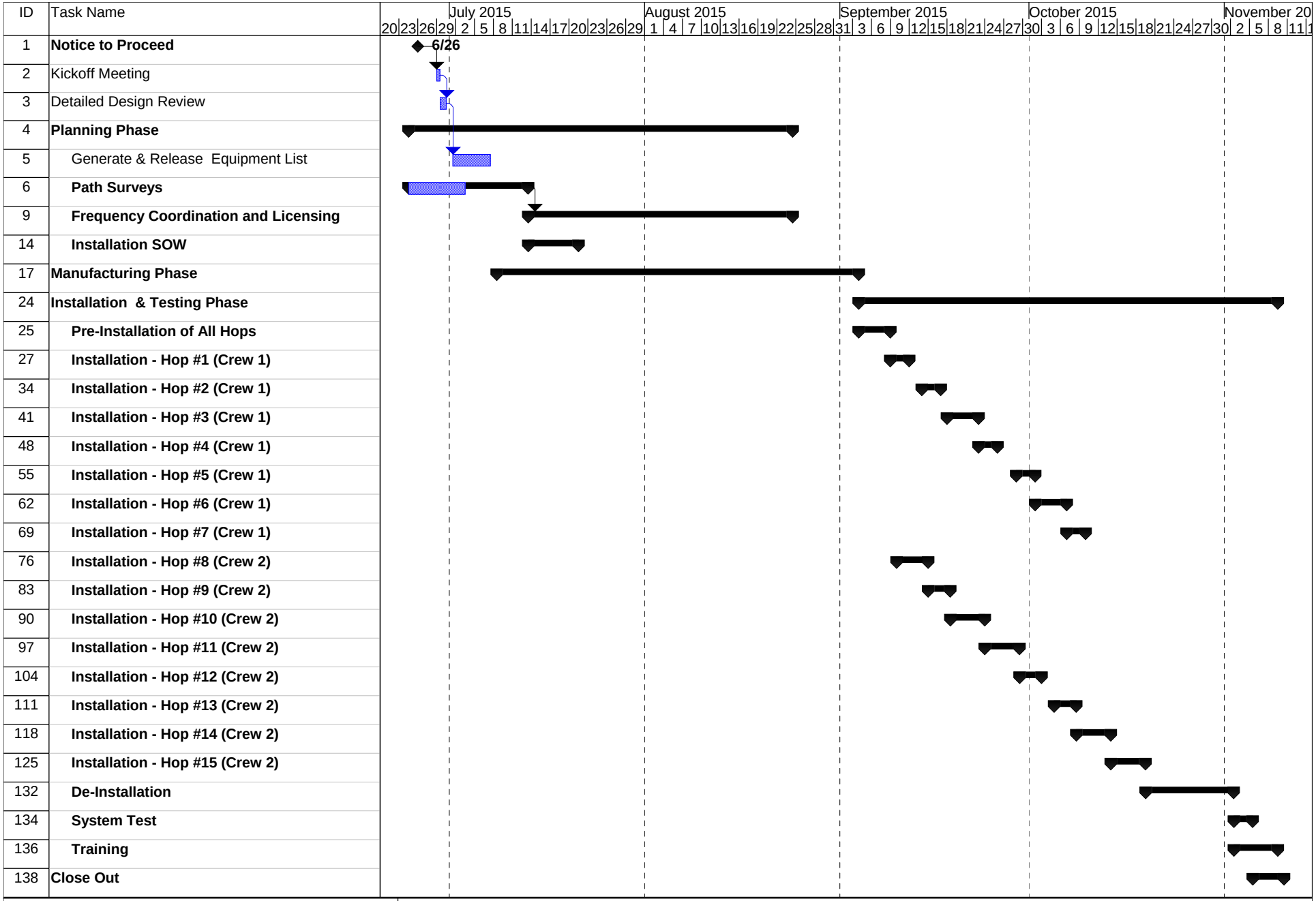
4.17.3 Change Order Process

Either Party may request changes within the general scope of this Agreement. If a requested change causes an increase or decrease in the cost or time required to perform this Agreement, the Parties will agree to an equitable adjustment of the Contract Price, Performance Schedule, or both, and will reflect the adjustment in a change order. Neither Party is obligated to perform requested changes unless both Parties execute a written change order.

SECTION 5

PROJECT SCHEDULE

Project Schedule is included on the pages that follow.



Cochise County MW - Preliminary Schedule

Task
Critical Task
Milestone
Summary
Manual Task

SECTION 6

TRAINING PLAN

A detailed training course is included for the Proteus MX. Proteus MX training is for up to six students and includes 3 days for radios and NMS system. The training will be conducted by a certified factory instructor. Course content covers documentation, test procedures, system equipment, and practical hands-on experience, with individual attention to each student. In addition, students have extensive use of the instruction manuals, which includes diagrams, factory test records and supplemental documentation.

Training is hands-on. In fact, Microwave Networks trainers ask your engineers and technicians to troubleshoot equipment during training. Your staff gains practical experience, knowledge, and confidence. In addition, students receive training in documentation, including block and schematic diagrams, factory test records, and as-built documentation.

Proteus Microwave Radio Course Syllabus
Objective: Provide the customer microwave network support personnel with the necessary knowledge and skills required to install, maintain, troubleshoot, repair and align the Proteus Series Microwave Radios.

Figure 1 Troubleshooting Techniques

Figure 2 Radio Configuration Tools

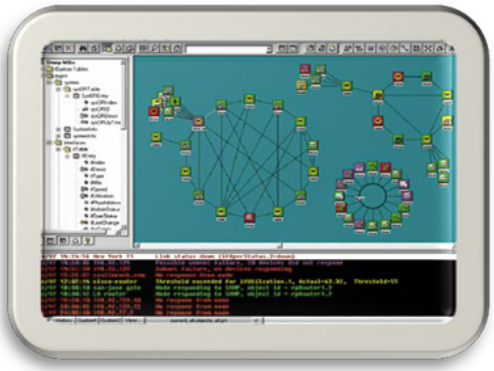


Figure 3 Network Management System

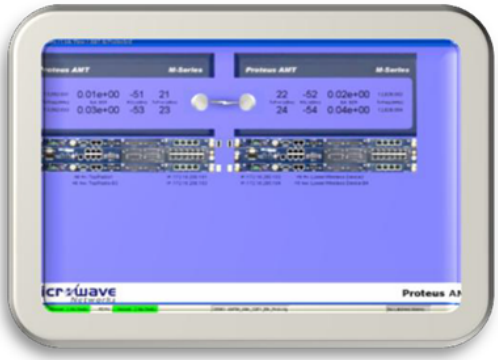


Figure 4 Radio Status and Alarm Monitoring

Prerequisites:	A working knowledge of Electronics, FM Theory, and Basic Logic Circuits. Knowledge of digital electronics would be helpful, but an introduction to Microwave Radios is included at the beginning of the course.
Products	Proteus Family of Radios: M, MX, MX-T, MX, LX, MX-D, OIP, UMX, E-Band and S3
Course Location	Courses Available onsite or at the Microwave Networks Corporate office located: 4000 Greenbriar Stafford, Texas 77477
Course Duration:	3 days, 9:00A.M. To 4:00 P.M.

Proteus Microwave Radio Course Syllabus		
Course Content:	**Digital Microwave System Overview**	
	- Radio Basics - Propagation - Frequency Planning - Link Engineering - Antennas - Technical Parameters - System Engineering - Digital Microwave Systems - Performance - Protection and Diversity - Modulation	
	Proteus Series Microwave Radio	
	Radio Description	Signal Processing Unit - Chassis - SPU Circuit Boards - SPU Front Panel - Power Supply Module - Line Interface
		RF - Indoor RF Unit (RFU) - Outdoor Unit (ODU) - Antennas - Connectors
		Interconnect Cables - IDU to ODU/RFU - SPU Cables
	Operation	Simplified Radio Block Diagrams - Basic Diagram - Line Interface - Signal Multiplexing - Service Channels - Management Channels
		Modulation and Coding - QPSK - QAM
		IF Conversion and Multiplexing
		RF Conversion
		AES Encryption
		VLAN

Proteus Microwave Radio Course Syllabus		
	Protection Switching	Hot-Standby (Protected) Configuration - Reverse Channel Switching - Space Diversity Switching
		Ring Protection - Ethernet Rapid Ring Protection - DS1 SHARP (Self-Healing Alternate Route Protection
	Guaranteed Specifications	**Specification Sheets**
		Reliability - Switchover: Transmit and Receive - Automatic Power Control (APC) - Adaptive Code Modulation (ACM) - Forward Error Correction (FEC)
		Flexibility - Change of Protection - Change of Frequency - Upgrade of Capacity
	Installation	Cautions - Location - Environment - Grounding

		Hands-on
		- Assembling and installing the Cable (SPU to ODU)
		- Mounting the SPU
		  - Connecting Power
		  - Connecting Tributaries
		  - Connecting Network Management
		  - Connecting Auxiliary Interfaces
		- Installing the ODU
		  - Mounting Assembly
		  - Antenna
		  - Outdoor Unit
		  - Coaxial Cable or Elliptical Waveguide

	Radio Management	Interfaces - RS232- serial connection - NMS-RJ-45 Ethernet Interface
		SNMP - SNMP Management Application - Management Information Base (MIB)

Proteus Microwave Radio Course Syllabus		
		IP Addressing - Basics on Binary - IP Structure - Subnetting

		Element Manager
		- Element Manager Graphics
		- Key Features
		- System Requirements
		- Basic Operation
		  - Polling
		  - Alarms
		  - Element Manager Menus

		Craft Terminal Command Line Interface (CTI - Character Based - Menus
	Commissioning	**Powering**
		ODU Alignment

		Configuring
		- ODU
		  - Setting TX and RX Frequency
		  - Settng TX Power Output
		- SPU
		  - Setting Capacity
		  - Setting Tributaries

		Verifying Operation
	Maintenance	SPU Components - Replacing Cards - Replacing Power Supply Board and Fuse - Upgrading Radio Payload Configuration and Capacity
		Outdoor Unit
		PMIs - Monthly - Semi-Annual - Annual
		Troubleshooting
	Summary	

SECTION 7

WARRANTY AND MAINTENANCE PLAN

Motorola has over 75 years of experience supporting mission critical communications for public safety and public service agencies. Motorola's technical and service professionals use a structured approach to life cycle service delivery and provide comprehensive maintenance and support throughout the life of the system. The value of support is measured by system availability, which is optimized through the use of proactive processes, such as preventive maintenance, fault monitoring and active response management. System availability is a function of having in place a support plan delivered by highly skilled support professionals, backed by proven processes, tools, and continuous training.

7.1 THE MOTOROLA SERVICE DELIVERY TEAM

7.1.1 Customer Support Manager

Your Motorola Customer Support Manager (CSM) provides coordination of support resources to enhance the quality of service delivery and to ensure your satisfaction. The CSM is responsible to oversee the execution of the Warranty and Service Agreement and ensure that Motorola meets its response and restoration cycle time commitments. The CSM will supervise and manage the Motorola Authorized Servicer's functions.

Motorola has proven experience to deliver mission critical network support

- Extensive Experience – Motorola has over 75 years of experience supporting mission critical communications and the Public Safety community.
- Capacity to Respond – Motorola's network of local service centers, repair depots, system support center and parts support enable Motorola to provide quick and effective service delivery.
- Flexibility and Scalability – Motorola's Support Plans are customized to meet individual Customer needs.
- Skills and Process – Motorola uses a well-established, structured, and disciplined approach to provide service delivery. Motorola's team of well-trained and committed people understands the communications technology business.

7.1.2 Motorola System Technologists

The Motorola System Technologists (ST) are available to assist Motorola's Authorized Servicers when needed for network health and operations.

7.1.3 Motorola System Support Center

Located in Schaumburg, Illinois, the System Support Center (SSC) is a key component to the overall management and system maintenance. As detailed in this Customer Support Plan, the following services are provided by the System Support Center depending on the selected service package:

- Network Monitoring.
- Dispatch Service.

- Infrastructure Repair with Advanced Replacement.
- Technical Support.

7.1.4 Motorola Local Service Provider

Motorola's authorized service centers are staffed with trained and qualified technicians. They provide rapid response, repair, restoration, installations, removals, programming and scheduled preventive maintenance tasks for site standards compliance and operability. Motorola's authorized service centers are assessed annually for technical and administrative competency.

7.2 PROPOSED SUPPORT PLAN

7.2.1 Motorola Services

Motorola will provide warranty services per our standard warranty terms and conditions as outlined within the Communication Systems Agreement within this proposal. In addition to the warranty services, Motorola will provide at no charge during the Warranty Period above-warranty services as generally described below. A full description and Statement of Work describing the services that will be provided are available upon request. After the Warranty Period, these services may be purchased under a separate maintenance agreement.

7.2.1.1 Dispatch Service

Motorola's System 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 communications network. Once the issue has been addressed the SSC verifies resolution and, with customer approval, closes the case. Activity records are also available to provide comprehensive history of site performance, issues, and resolutions.

7.2.1.2 First Echelon On-Site Support: Point-to-Point Microwave

Motorola First Echelon On-Site Support will be added to supplement Microwave Networks' factory warranty. This provides local, trained and qualified technicians to work with the original equipment manufacturer to diagnose and restore your communications network. The field technicians restore the system by performing first level troubleshooting on site. Response will be provided 24x7.

On-Site Support assumes access by standard 4-wheel drive vehicles. Customer must provide transportation to non 4-wheel drive accessible sites.

7.2.2 Post Warranty Services

As Motorola's continuing commitment to supporting your system, post warranty services can be extended after the first year to provide maintenance and service support in future years. Any of the services that we identify can be customized in future years, and are available for purchase either in "System Support Services" packages or as individual service offerings. These system support services significantly benefit you because the system can be effectively supported after the warranty period, thereby maximizing the operational capabilities and useful life of the system and protecting your investment in the system.

7.3 SUMMARY

Whether it's a routine service call, or a disaster situation, Motorola understands its responsibility and takes pride in its commitment to deliver proven response service to the public safety community. Motorola has the capability to provide the technical, administrative, consultative, and maintenance repair services needed to support, enhance, and maintain the effectiveness of your communications network. Motorola's goal is to provide qualified resources, to maintain and improve system operation and availability, and to deliver world class service support.

Cochise County Support Plan	Warranty	Year 2	Year 3	Year 4	Year 5
MNI Commercial Warranty Telephone/Technical Support/Depot Repair	✓	Factory extended warranty ✓			
Dispatch Service	✓	Optional	Optional	Optional	Optional
First Echelon OnSite Support - 24x7	✓	Optional	Optional	Optional	Optional

SECTION 8

PRICING SUMMARY

Description	Price
Microwave Solution to included all equipment, installation and optimization	$2,461,841
Est Tax	$96,681
Grand Total	**$2,558,523**