MOTOROLA *SOLUTIONS*

BACKUP IS NOT ONLY ON SCENE

MCC 7500 IP DISPATCH CONSOLE

Make your Dispatch Center an information pipeline, on which first responders can rely for the relevant, real-time intelligence they need. The Project 25 (P25) standard-based MCC 7500 IP Dispatch Console enables effective, secure communication to keep responders connected and informed when it matters most.

THE RIGHT INFORMATION, RIGHT AWAY

The connected world gives your agency access to more information than they've ever had before. This information can prove crucial to first responders in identifying and neutralizing threats to themselves and others before a situation escalates and results in tragedy. However, with the explosion of available data comes the increasingly difficult task of managing and communicating information.

The MCC 7500 console offers dispatchers integration capabilities to reach across multiple applications and resources, helping to coordinate a response and provide the necessary mission-critical intelligence to ensure the safety of first responders.

Multiple delivery options, including voice, Talkgroup Text Message and tone, connect dispatchers to responders across ASTRO® 25 trunked and conventional systems. Furthermore, Enhanced Telephony can connect telephone and radio users together in a single patched group.

DISPATCH APPLICATION ECOSYSTEM

The ability to integrate Motorola and other third party dispatch applications with the MCC 7500 console API, creates a dispatch environment that helps you meet the needs of your first responders.

Motorola Solutions Certified Logging Recorders
The Motorola Solutions certified NICE and Verint Logging Recorders provide seamless dedicated recording for the MCC 7500 console to improve productivity and offer post incident insights to your operations. They are the only recording solutions that meet all of the extensive Motorola Solutions performance specifications required to be implemented on the ASTRO 25 IP network.

PremierOne™ Computer Aided Dispatch
PremierOne CAD integrates with the MCC 7500 console to streamline workflows, minimize key strokes and reduce input error for more dispatch efficiency. Your personnel can operate within a single interface and from one mouse and keyboard to receive 9-1-1 calls, manage an incident response and communicate critical information to responders in the field.

Advanced Messaging Solution
The Advanced Messaging Solution builds upon the Talkgroup Text Messaging capability of the MCC 7500 console, further enhancing responder decision-making abilities by facilitating two-way texting between dispatch and the field. When voice communication is not an option, Advanced Messaging Solution provides responders with critical information, right at their fingertips, on portable radios or broadband devices.

71% of alleged offenders identified in connection with 2013 Law Enforcement Officer deaths had previous criminal records

30% of those offenders under judicial supervision at the time of the incident.

- Law Enforcement Officer Death and Assault Report 2013, FBI

APX Personnel Accountability
Streamline on-scene roll calls and gain the confidence to make critical decisions with an easy to use single screen view showing the status of all on-scene personnel. Rapidly execute evacuation orders to quickly alert your team to changing situations and see that everyone acknowledges.

EASE OF USE MAKES FOR MORE EFFECTIVE SUPPORT

Give your dispatchers the tools they need to effectively and effortlessly feed crucial intelligence to responders in the field. The MCC 7500 console provides dispatchers with an intuitive means to organize resources, coordinate a response and communicate valuable information. Its familiar interface, which emulates the legacy Gold Elite graphic user interface (GUI) look and functionality, allows dispatchers to quickly adapt to a new system with a short learning curve and minimal training.

Purpose-designed workflows with minimal click-throughs, critical resource information displays and contextual right-click menus are just some of the features that can help your dispatch operation become more streamlined and effective, and your dispatchers more efficient and productive. Customizable features, including window sizing and placement, color schemes and icons, allow you to create a workflow unique to your agency's needs. Individual logons even let your dispatchers create the user experience that works best for them.

With the MCC 7500 console, you'll give overburdened dispatch staff a little relief from the complexity of their job, instead of one more thing to manage.

THE INTELLIGENCE YOU NEED, EVERY TIME, ALL THE TIME

First responders rely heavily on dispatch for support. They need to be confident that your team can always offer the right information and coordination when an emergency arises. The inherent reliability and security of the ASTRO 25 system ensures first responders and dispatchers stay connected with best-in-class audio quality. For peace of mind that the right information always gets through, rely on our smart voice prioritization and intelligent audio routing capabilities at your dispatch positions. Furthermore, continuous link and resource polling gives your dispatchers the confidence that once connected they stay connected.

SCALE UP YOUR SYSTEM, NOT YOUR COSTS

If your public safety agency is like most others, money is tight for you right now. The MCC 7500 console helps you keep costs down with flexible servicing and Voice Processing Module (VPM) deployment options. That means less purpose-built hardware for you to buy and maintain, with additional savings on the space and electricity needed to run the system. The software-based system, managed from a centralized, single point of contact, reduces the time and skills needed for updates while the scalable platform lets your system grow only as much or as little as you need.

The MCC 7500 console can be deployed incrementally as it can interoperate within legacy ASTRO 25 console systems, giving you even more installation flexibility.

MCC 7500 CONSOLE SOLUTION COMPONENTS

MCC 7500 Console Operator Position
MCC 7500 console operator positions connect directly to the radio system's IP transport network without gateways or interface boxes. Audio processing, encryption, and switching intelligence for dispatch is performed within each software-based operator position, without additional centralized electronics. MCC 7500 consoles function as integrated components of the entire radio system, enabling full participation in system level features such as end-to-end encryption and agency partitioning.

Operator position hardware consists of a monitor, personal computer, keyboard and mouse/trackball/touchscreen, speakers, audio accessories and a VPM. The VPM allows analog devices to be connected to the digital console. The low-profile VPM can be rack mounted, furniture mounted or placed on the desktop.

The MCC 7500 console does not require separate configuration or performance management equipment. The console system is configured and managed by the radio system's configuration manager, fault manager and performance reporting applications to provide the customer with a single point for configuring and managing the entire radio system. Aliases for Radio PTT IDs may be managed both locally and centrally in the same system to provide agencies sharing an ASTRO 25 radio system with the flexibility to meet their alias management needs.

Conventional Gateway
The Conventional Channel Gateway (CCGW) enables both analog and digital channels to interface with MCC 7500 consoles with no need for a separate hardware network and channel banks. Conventional calls are transported between the dispatch operator positions and CCGWs on the same IP network as trunked calls.

A CCGW provides 2-wire/4-wire analog ports for analog channels, V.24 ports for older ASTRO 25 conventional channels and IP connectivity for current architecture ASTRO 25 conventional channels. Enhanced digital control of consolettes can be achieved by using a combination of analog and V.24 ports. CCGWs are available in two capacities. The standard density CCGW supports up to eight "port based" channels and up to sixteen "IP based" channels for a total of twenty four channels. The high density CCGW supports up to sixteen "port based" channels and up to sixteen "IP based" channels for a total of thirty two channels.

Auxiliary Input/Output Server
The auxiliary input/output server enables console operators to control and monitor external devices, such as doors and lights, from the console graphical user interface (GUI). Since the MCC 7500 console does not rely on centralized electronics, contact closures and input buffers required to

interface to these devices are housed in Remote Terminal Units (RTUs). These RTUs can be physically located close to where they are needed or at any console or radio frequency (RF) site. The dispatch consoles and RTUs communicate with each other across the radio system's IP transport network.

Archiving Interface Server (AIS)

The AIS is a digital logging interface, comprised of a personal computer and a VPM. Audio and call control information is sent across the IP network between the AIS and logging recorder.

Console Telephony Media Gateways

Media gateways are used to provide dispatchers with access to analog POTS and/or T1/E1 phone lines directly from their MCC 7500 console positions. The Session Initiation Protocol (SIP) is used to communicate with the media gateways across the console IP network. A rich set of telephony features is supported by the media gateways, enabling dispatchers to do their jobs more effectively and efficiently.

SPECIFICATIONS

System Compatibility	ASTRO® 25 System
Vocoder Algorithms supported	AMBE, IMBE, ACELP, G.728, G.711
Encryption Algorithms supported	AES (256 bit), DES-OFB, DVI-XL, ADP (Advanced Digital Privacy), DES-XL, DVP-XL
Monitor requirements With Mouse or Trackball Touchscreen	 17" minimum, 20" recommended 20" minimum
Voice Processor Module (VPM) connections	**Connector type** **Device** RJ45 One desktop microphone, eight desktop speakers, one local logging recorder, one radio instant recall recorder, one console telephony instant recall recorder, one external telephone set, one external paging encoder, one footswitch DB15 Two headset jacks connectors
VPM mounting options	EIA 19" rack mount, console furniture mount, Desktop – supports monitor up to 80 lbs
VPM audio inputs and outputs	600 Ohm, balanced and transformer coupled (except for microphone which is 2000 Ohm, balanced, and does not use a transformer)
Speaker Mounting Options	Desktop, furniture mount, or wall mount (with bracket accessory)
Dispatch Console Cable Lengths	VPM to Speaker cable 10.1 feet (3.09 meters) standard VPM to Headset Jack cable 6 feet (1.8 meters) standard Headset Jack Extension cable 6 feet (1.8 meters) standard VPM to Microphone cable 10 feet (3.05 meters) standard VPM to Footswitch cable 10 feet (3.05 meters) standard
Supported Console Site Link types	Fractional T1/E1, Single T1/E1, Multiple T1/E1s Redundant and non-redundant versions IP site links
MCC 7500 Dispatch Console Capacities	Up to 60 simultaneous audio sessions per operator position Up to 60 simultaneous encryption/decryption sessions per secure capable operator position Up to 16 Multi-Select groups per operator position (with up to 20 members per Multi-Select group) Up to 16 Patch groups per operator position (with up to 20 members per Patch group) Up to 160 resources per operator position
Auxiliary Input/Output Server Hardware	A simplified, user-friendly version of the MOSCAD SDM 3000 RTU is used to support most Aux I/O needs. The output relays are capable of switching 1A @ 24VDC or 1A @ 24VAC. Input buffers are capable of sensing a dry closure through 1000 feet or less (round trip) of 24 AWG wire. The RTU provides single pole Form A relay outputs. (Double pole, Form B or Form C relays must be implemented using external relays which are controlled by the RTU relays.) Each SDM 3000 RTU and each SDM 3000 RTU Expansion Chassis is rack mountable in a standard 19 inch rack and is one rack unit high.
Console Telephony Media Gateway	The POTS version gateway supports up to eight analog POTS lines. The E1/T1 version gateway supports up to two E1 or two T1 connections. Each gateway is rack mountable in a standard 19 inch rack and is 2 rack units high.

SPECIFICATIONS

Conventional Channel Gateway	Rack mountable, 1 rack unit high

Conventional Channel Gateway

Rack mountable, 1 rack unit high
T1R1, T2R2, T4R4, T8R8, T12R12, T14R14, T16R16 channels
Simple analog, MDC 1200 analog, pure digital, mixed mode (analog/digital) and P25 conventional talkgroup channels, consolettes
Standard density CCGWs provide interfaces for up to four analog conventional channels
High density CCGWs provide interfaces for up to eight analog conventional channels
Each analog conventional channel interface contains the following inputs and outputs
- 600 Ohm, balanced analog audio input - To accept radio audio from the channel. Can be configured to support AGC, DLM, or no input conditioning.
- 600 Ohm, balanced analog audio output - To send console transmit audio to the channel
- 600 Ohm, balanced analog audio output - To send console transmit and radio receive audio to a logging recorder
- 1 Amp, 24 VDC relay output - For relay keying of the channel
- Input buffer - To detect Carrier Operated Relay (COR) closure in the channel
- Input buffer - To detect Line Operated Busy Light (LOBL) closure in the channel
- Input buffer - To detect Coded/Clear closure on an Advanced Securenet channel
Standard density CCGWs provide interfaces for up to four V.24 based ASTRO 25 conventional channels
High density CCGWs provide interfaces for up to eight V.24 based ASTRO 25 conventional channels
- V.24 to station or comparator. No Digital Interface Unit (DIU) required.
Standard density CCGWs can support up to 24 conventional channels simultaneously (four analog + four V.24 based ASTRO 25 conventional + sixteen IP based ASTRO 25 conventional)
High density CCGWs can support up to 32 conventional channels simultaneously (eight analog + eight V.24 based ASTRO 25 conventional + sixteen IP based ASTRO 25 conventional)

SIZE AND WEIGHT

Device	Height	Width	Depth	Weight
VPM	1.75 in (44.5 mm)	16.9 in (430 mm)	12.3 in (312 mm)	3.6 lbs (1.6 kg)
Speaker	4.9 in (124 mm)	4 in (102 mm)	w/o bracket: 3.5in (89mm) w/ bracket: 5.8in (146mm)	0.7 lbs (0.3 kg)
Headset Jack	1.6 in (41 mm)	5 in (127 mm)	6 in (152 mm)	1.2 lbs (0.5 kg)
Microphone	Gooseneck at 90°: 4.5 in (114 mm) Gooseneck at 180°: 21.8 in (552 mm)	4.8 in (121 mm)	6.6 in (168 mm)	2.4 lbs (1.1 kg)

POWER AND CONSUMPTION THERMAL

Device	Power Input	Thermal Output
VPM	0.4 Amps at 120VAC 0.2 Amps at 240VAC	171 BTUs/hour
Speaker	Add 0.05 Amps per speaker to VPM power Input at 120VAC (0.025 Amps at 240VAC)	Add 15 BTUs/hour per speaker to VPM thermal output
Headset Jack & Microphone	negligible	negligible

CERTIFICATIONS

The various hardware elements of the Motorola MCC 7500 IP Dispatch Console product line are certified to meet the requirements for CSA and CE.

Safety	CSA 60950-1-03 EN60950-1 2001	
EMC Emissions & Immunity	FCC part 15 Class A ICES-003 EN55022 1998 + A1: 2001 + A2:2003 (CISPR-22 Class A)	EN55024 + A1:2001 + A2:2003 EN61000-3-2 2000 EN61000-3-3 1995 + A1:2001
Energy Efficiency (VPM power supply only)	International Energy Efficiency Level V	

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