MAX Dispatch

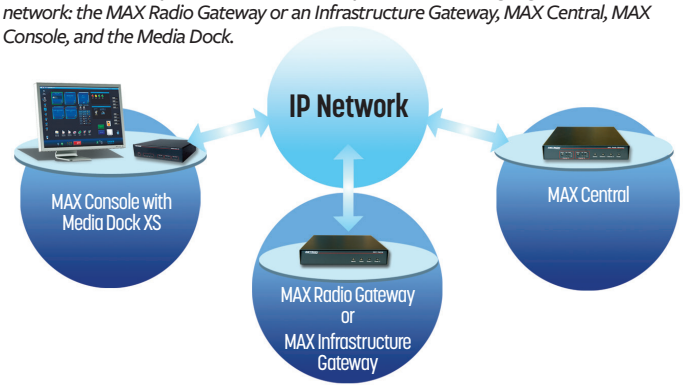
Spec Sheet

Zetron's IP-based MAX Dispatch console system is designed to meet the varying needs of the dispatch community while providing a low cost of ownership to the customer. Whether it is expanding the positions and interfaces of one system, sharing resources across multiple systems, increasing mobility options for staff or ensuring your control room can interface to legacy and emerging technologies, the MAX Dispatch radio dispatch console provides the customer an easy path on which to move forward.

Features

- **Simpler Operation, Lower Training Cost:** The user interface is designed to focus attention on the incident by reducing screen clutter, improving response times, and therefore reducing user stress. MAX Dispatch requires minimal training and fewer steps to perform tasks and access information.
- **Map-based dispatching:** Available for systems that support location services.
- **High reliability:** End-to-end network redundancy keeps the system up and running even if the IP network goes down.
- **Minimize Maintenance Time and Cost:** Configure, troubleshoot and maintain the system from the convenience of the office.
- **Scalable Operations:** The architecture provides scalability for system designs ranging from dedicated LAN network to multi-node, geographically diverse WAN applications.

The MAX Dispatch System comprises four key elements working together over an IP network: the MAX Radio Gateway or an Infrastructure Gateway, MAX Central, MAX Console, and the Media Dock.



MAX Console w/ Media Dock:

The MAX Dispatch console is the system element that provides the critical user interface to dispatchers. Each console consists of a Windows®-based client running the MAX Dispatch application software and the optional Media Dock. The console PC is equipped with two, full-duplex Ethernet ports for full network redundancy. If your system has a Media Dock it provides additional audio interfaces and connection points for accessories.

Media Dock Interfaces Support:

- Up to eight speakers.
- Desktop microphone.
- 4-wire or 6-wire headset jackbox.
- PTT and monitor footswitches.
- Four local binary inputs and output that can be used for workstation status.
- Four local relay contact closure outputs.

Workstation Requirements:

Operating System:	Windows based.
Video Monitor(s):	1680 x 1050 resolution or larger; 1920 x 1080 recommended. DirectX 10-compatible graphics processor with a Windows Display Drive Model (WDDM) 1.1 driver, pixel shader 3.0 in hardware, and a minimum of 512MB of video RAM. Touchscreen operation requires a monitor that supports multi-touch.
Processor:	Quad Core i5 3.0 GHz or better processor.
Memory:	8GB.
Drive:	500GB or larger.
Network:	100/1000 Ethernet Connection. Dual connections are required for link redundancy options.

MAX Radio Gateway:

The Radio Gateway serves as the interface point between a radio or base station and the rest of the MAX system. Radio Gateways are available in both analog and digital forms depending on the radio interface requirement.

Supported Features:

- Analog gateways support up to two radio connections.
- Digital gateway supports Ethernet connection to digital base station infrastructure.
- Dual Ethernet ports for network redundancy.
- Analog voice logger output.
- Four binary inputs and outputs for generic site monitoring and control use (analog gateways only). Relay closures available via optional Zetron Model 6080.

Supported Radio Interfaces (Inquire for additional radios supported):

- 2-wire, 4-wire local (PTT/COR).
- Tone Remote Control (per TIA102.BAHA Section 7).
- Analog/conventional radios: Kenwood TK-x180, Motorola XTL 5000 (O5), Harris M7300/XG75, & XG100.
- P25 conventional/trunking radios: Kenwood TK-5x10, Motorola APX 7500 (O5 Mobile), Motorola XTL 5000 (O5 Mobile), Motorola Quantar with DIU-3000 (conventional only), Harris M7300/XG75 & XG100.
- Smartnet/SMARTZONE radios: Motorola APX 7500 (O5 Mobile), Motorola XTL 5000 (O5 Mobile), EFJ VM400/600/900.
- EDACS radios: Harris M7300/XG75 & XG100.
- P25 Digital Fixed Station Interface (DFSI) per TIA102.BAHA.
- Kenwood NEXEDGE radios: NX-700/800/900, NX-720/820
- Kenwood NEXEDGE NXR-700/800 Conventional and Trunking Repeaters.
- DMR AIS Tier II and Tier III *Location Services (AVL)

MAX Infrastructure Gateway (IG):

The IG serves as the interface point between the radio system and the rest of the MAX system. It is server-based.

Supported Features (in CSSI):

- Unit ID Display
- Talkgroup selection
- Group calls (inbound/outbound)
- Inbound emergency group call
- Individual calls (inbound/outbound)
- Inbound emergency alert
- Inbound call alert
- Encryption (non-FIPS, not to console position)
- Manual encryption key load
- KVL encryption key load support
- Static talkpath to talkgroup mapping through console system acceptable
- Long term voice logging support for voice
- Long Term Logging support for Group call source id
- Patching of talkgroups by operator
- Console behavior same as with current radio interfaces providing consistent visual indications for transmit, receive, audio routing, call state
- Console Pre-emption of inbound calls

MAX Central:

The Central is the hardware platform that hosts several software services used in the MAX Dispatch system. These software services provide essential management and control to the system as well as act as a gateway to various third party devices for additional functionality such as telephony gateways, IP voice loggers, MODBUS IP auxiliary I/O devices and Location Services (AVL). It also hosts the service that provides remote console, remote radio gateway and multiple MAX Dispatch site linkage.

Supported Features:

- Dual network connections
- Dual power connections
- Hot standby capability for Z-Node Manager, Telephony Gateway, Portal services and Location Gateway service.
- Long term IP voice loggers supported: Eventide, Exacom, Stancil, CVDS, REVCORD, Higher Ground, NICE, Verint, DSS Corporation.

Specifications:

Hardware

Dimensions (HxWxD)

Media Dock XS:	2.5 x 7.5 x 10 in. (64 x 192 x 254mm)
Central:	1.25 x 7.5 x 10 in. (31.75 x 191 x 254mm)
Radio Gateway:	1.25 x 7.5 x 10 in. (31.75 x 191 x 254mm)

Weight

Media Dock XS:	2.6 lbs (1.2 kg)
Central:	2.5 lbs (1.13 kg)
Radio Gateway:	2 lbs (0.91 kg)

Operating Temperature

Media Dock XS:	0 to 60 ° C
Central:	0 to 50 ° C
Radio Gateway:	0 to 50 ° C

Maximum Power Draw

Media Dock XS:	3W, 200mA (no speakers), 21W (with speakers)
Central:	1.8A @ 10.5 VDC
Radio Gateway:	1A @ 10.5 VDC

Network

Radio Gateway Payload (per radio):	192 kbps active. Less than 5kbps idle.
Console Workstation Payload:	84 kbps maximum for each active audio stream (Tx or Rx). N*84 kbps for simultaneous Tx on N channels.
Packet Loss:	< 0.1% (< 1% for non-mission critical).
Packet Delay:	< 40 ms for LAN environments; up to 2 seconds for longhaul (long delay) environments.
Packet Jitter:	< 20 ms (< 40 ms for-non mission critical).
Network Infrastructure:	100 Mbps minimum, full-duplex Ethernet. Switches and routers must be multicast aware. Mission-critical applications should use a dedicated network.

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