

# RELIABLE DISPATCH SOLUTIONS

*“We used our knowledge drawn from 30+ years of experience in the console industry, took the best features from various sources, knew we could make them better and created the Mindshare Suite of VoIP Dispatch Console Systems.”*



NO SYSTEM SIZE LIMITATIONS

NO BACKROOM CENTRAL ELECTRONICS

NO POSITION PC'S

NO SINGLE POINT OF FAILURE

The Mindshare System has **3** major components, which are the same no matter the system size, making spares a minimal investment.



### 1) MAXplus G2

- The smallest radio dispatch form factor.
- Runs on Linux, not Windows, for ultimate stability.
- Setup, maintenance, and diagnostics can all be done remotely.



### 2) Console Graphic User Interface (GUI)

- Total flexibility with customizable user interface design.
- Unrestricted radio and telephone connections.
- Unrestricted radio and telephone interfaces within one GUI.
- Feature rich with free unlimited updates.



### 3) Radio Interface

- The smartest radio interface on the market.
- High end capability and easily maintainable.
- Card based design, 16-UP in a 3U rack or 1-UP in a single card enclosure.
- Hot swap cards, only affecting 1 channel when removed.
- Card cage contains an 18-port network switch and multiple power options.

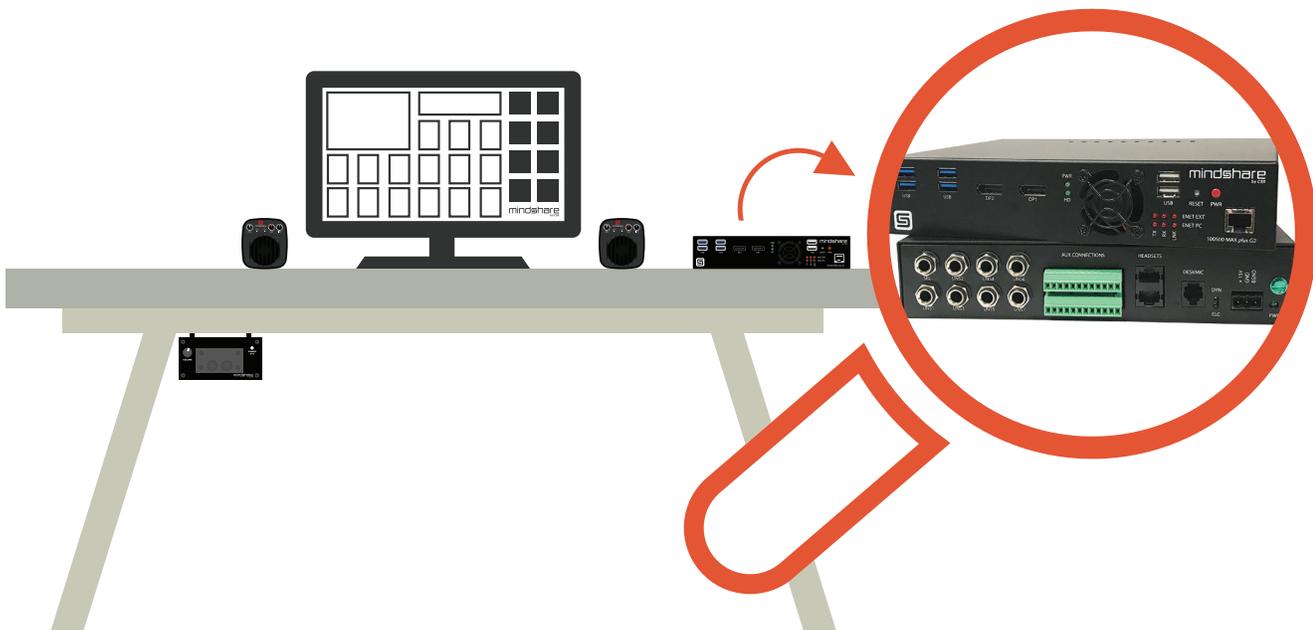


The Mindshare MAXplus G2 Radio Dispatch Processor is a complete dispatch workstation providing interfaces to all common audio accessories such as headset jacks, foot-switches, speakers, desk microphones, NENA telephone interface, and more. This system is built with an Intel i3 COM Express computer that provides the user interface and VoIP communications, utilizing the audio system via an internal USB connection. All of your dispatch position electronics in one sturdy metal enclosure.

The MAXplus G2 is the smallest dispatch form factor sized at 9½” x 8¼” x 2”. When mounted under the desk, the only items remaining on the desktop are the monitor, speakers, and microphone. The MAXplus G2 runs Linux, not Windows, for ultimate stability. To promote the most reliable and secure operating environment for a console system, without sacrificing operational requirements, Mindshare Engineers have created a ground up Debian based operating system including only what is needed for dispatch operations. The Linux operating system and hardware design of the MAXplus G2 support full remote configuration and diagnostics. Audio levels, console screens, log files, and recording can all be managed remotely over the network.

### Features and Options:

- Supports both dynamic and electret desk microphones.
- Touchscreen monitors w/ HD resolution (1920 x 1080).
- 2 Foot-switches.
- 2 Headset interfaces.
- 8 desktop speakers.
- Custom embedded Linux based audio device.
- 2 Display Ports.
- 6 USB ports for keyboards, mice, touchscreens, etc.



- ✓ Smallest dispatch form factor.
- ✓ Linux based for reliability and security.
- ✓ No position PC's



The Graphic User Interface (GUI) is a major feature of the Mindshare System. Users are capable of designing and implementing custom screen designs and layouts with complete flexibility. The GUI accommodates virtually any configuration or number of configurations to support any user or system requirements. It is completely feasible to create consoles that closely resemble those of legacy systems, in both appearance and layout. This feature greatly reduces dispatcher training time and familiarization requirements with the new system. Because every module is comprised of individual components and is “custom built” to reflect the individual needs of the user, every need can be accommodated easily utilizing the Console Builder Application. Console Builder allows for a full choice of fonts, sizes and color combinations for every module and/or component of the GUI Display.

### Standard Console Features:

- Console buttons - Select, Unselect, Mute, PTT, Global and Per Line, Built in instant recall recorder.
- Multiple radio system special feature support.
- 100% flexible paging.

### Optional P25 Support:

- CSSI and DFSI interfaces.
- P25 Vocoder – AMBE.
- AES/DES encryption, FIPS 140-2 compliant.
- Key fill device support.

### Mindshare’s SIP Telephony Interface:

- SIP based PBX compatibility (Avaya, Cisco, Panasonic, Asterisk).
- Unlimited number of extensions per position.
- Voicemail support / status display.
- Caller ID.
- Hook flash, hold.
- Mic mute, caller mute.
- Call transfer & forwarding.
- Conferencing.



- ✓ 100% customizable.
- ✓ Unlimited screen layout options.

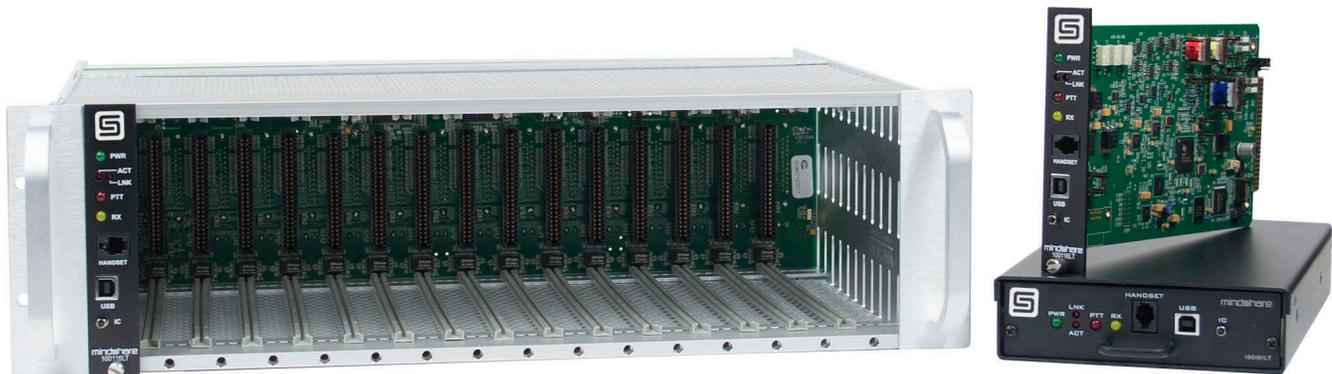


The Mindshare Radio Interface (MRI) is the remote end piece of the Mindshare dispatch system. Used for tone controlled radios, direct connected control stations, and intercom interfaces, the MRI also provides advanced control of supported vendors devices for features like ANI, Emergency, and Voter control.

Programming of the MRI card is done through its web browser interface allowing for setup and configuration from any location on the network. Potentiometers are implemented digitally allowing greater flexibility to maintain the device without having to visit the device.

The MRI is manufactured as a card that can be plugged into either a single unit enclosure, or into a 16 channel 3 unit rack card cage. Connection to the radio is done through the card allowing one card to be pulled out and replaced without having to move wiring.

The Mindshare Card Cage brings integration and maintainability to the highest level. The card cage contains an 18-port switch, 16-ports for cards to plug into and two external network connections. A single network and power connection is all that is required to put up to 16 MRI cards onto the network with no additional wiring required. For redundancy, the card cage internal network can be separated between the 8th and 9th card slots, allowing for two completely separate network connections to be used within a single cage. Power connections exist for each half of the cage as well allowing a single cage to be powered and networked as if it were two separate cages.

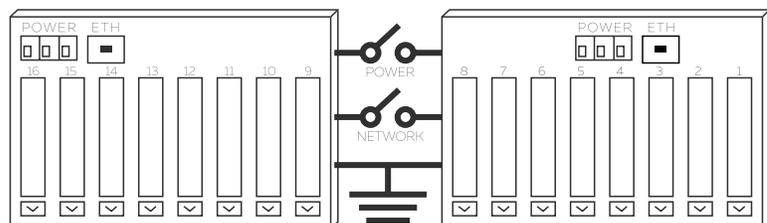


✓ Single power & network connection for 16 cards.

- OR -

✓ Rack power and network can be split for internal redundancy.

✓ All channels are individually hot swappable.



## KENWOOD

- Supports TK-5710/5810/5910, TK-5730/5830/5930, TK-7180/8180, NX-700/800/900, NX-5700/5800/5900.
- Connection is supported with a simple cable, no other hardware interface to purchase.
- TK-5710/5810/5910 support Fleetsync commands including: Channel Change, Scan, ANI, SelCall, Stun, Revive, Status Msg, Emergency Decode and Termination as well as P25 ANI, Emergency Decode, Individual Call, and Group Call.
- TK-7180/8180 support conventional modes and using Fleetsync additional commands including: Channel Change, ANI, Scan, Emergency Decode. These are supported across several trunking systems including Passport and LTR.
- NX-700/800/900 support the same conventional Fleetsync commands as the 5710 series, as well as the following NXDN features: ANI, SelCall, Stun, Revive, Status Message, Emergency Decode and Termination.
- Request Application Note MS1001\_AN for application information.



## JPS Interoperability Solutions

- Supports the JPS SNV-12 Voter for RX/TX audio and control functions through the Serial Interface.
- Supports remote voter control features including: Site Voted and Failed Status, Site UnSquelched Status, Site Transmit.
- Also provided are Selected Status, Site Signal Quality Status, Site Force Vote Control, Site Force Fail Control, Site Transmit Steering, and Repeat Mode Control.
- Integrated to Mindshare Console GUI for real time voting system information.
- Request Application Note MS1006\_AN for application information.

## ICOM

- Supports the ICom IC-F5061/6061 radios through the back side serial port with a simple cable connection to the Mindshare Radio Interface card.
- ANI and Emergency Decode are supported.
- Channel change from the console is supported.
- Request application note MS1007\_AN for application information.

## EFJohns<sup>n</sup>

JVCKENWOOD Group

- Supports the model 5300 and Viking series radios.
- Additional Hardware interface required, order part number 750M-191-000. EF Johnson accessory cable required.
- Supports all modes of the radio including P25, Analog Trunking, Smartnet, and Conventional.
- Supports Channel Change, ANI, Scan, and Emergency Decode.
- Request Application Note MS1005\_AN for application information.

## MOTOTRBO<sup>™</sup>

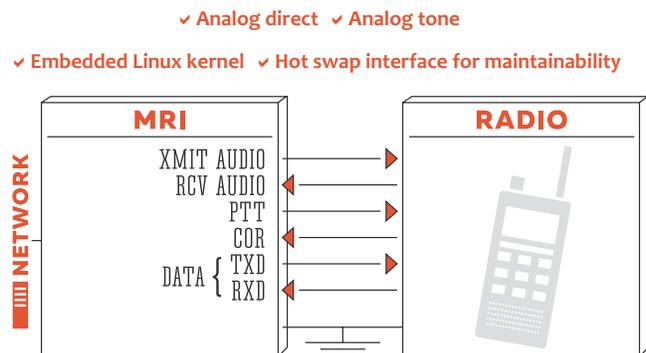
- Supports the Motorola XPR 4000 series radios.
- Zone and Channel Change.
- ANI and Emergency Decode.
- Private Call, Stun, Revive, and Call Alerts to Individual Units.
- Request Application Note MS1004\_AN for application information.
- Simple cabling from the Mindshare Radio Card to the radio. Includes both Mindshare and Motorola interface cables.
- Utilizes the same console buttons as other radios providing similar feature sets on the console screen.

## tait communications

- Supports the TM9300 DMR and TM9400 P25 mobile radios.

## Hytera

- Supports the Hytera MD78X series mobile radios.
- Supports Caller ID, Scan, Individual Call, Stun, Revive, Radio Check, Radio Listen, Call Alert, Channel Change and Emergency Functions.



The Mindshare 40218-IO Auxiliary I/O Units and Cards are used to support remotely controlled relays, and monitor digital inputs across an IP network. Possible applications include switching analog tone lines from one Mindshare Radio Interface card to another, opening doors, turning on landing lights, sensing if doors are open, voter system monitoring and control, and any other remote control and monitoring operation.



**40218-IO:**  
Stand Alone Rack Mount version, 18 DPDT Relay Outputs, 18 diode blocked or opto-isolated inputs.

**400150-IO:**  
Card type, Card Cage or 1-Up Mountable, 3 DPDT and 1 SPDT Relay Outputs, 1-4 diode blocked or 1-2 opto-isolated inputs.

## LINE AUDIO

The Mindshare Line Audio Card (LAC) has four channels of 2W/4W audio, VOX or COR controlled audio stream, connecting existing analog consoles to VoIP radio systems, and connects analog audio to networks. The LAC is great for audio recording and also offers Digital RX and TX gain sets from a web page. Conveniently available in both Rack and 1-Up mountable solutions.

### Features and Options:

- Embedded Linux device.
- 4 independent VoIP channels.
- 4 600 Ohm balanced 2W/4W interfaces.
- Tone detection for connection to legacy consoles.
- Receive packet streams based on VOX or COR.
- Supports uLaw, ADPCM, and GSM vocoders.



CSS Mindshare LLC is a subsidiary company of Communication Systems Solutions, Inc (CSS). CSS has been in business since 2004 as a contract electronics design and manufacturing company. Owner, Perry Howell earned a Masters degree in Electrical Engineering, working in the LMR field for over twenty years, and specifically in the dispatch markets for over 15 years. CSS's 30+ employees serve customers all over the world, in markets including scientific instrumentation, railroads, agriculture, consumer, medical, military, public safety, utilities, and communications fields. CSS's design and manufacturing expertise support its Mindshare products on a daily basis.

The Mindshare product line was contracted to CSS for design in 2006. Its owners were given a blank sheet of paper to begin the design of a new dispatch product line. The customer emphasized that the system needed to be:

- 1 - Distributed - No single points of failure, no central server dependencies, a minimum of unique parts.
- 2 - Maintainable - Card based, hot swappable, easy to update and repair.
- 3 - Reliable - Products run on revision controlled hardware, utilizing proven software systems.
- 4 - Supportable - Network connected remote setup, management, and diagnostics.
- 5 - Innovative - Linux based, digital gain control, smaller form factor, easier installation, fewer required parts.

In 2013, CSS acquired the Mindshare product line from a company that Mindshare originally designed it for. The entire operation of CSS is managed from Lincoln, Nebraska. Sales, Marketing, Engineering, Technical Support, and Manufacturing are all located in the heart of the USA. Part of that acquisition included Jack Hines, General Manager of Orbacom before its sale, to become the General Manager of the Mindshare product line, and guide its growth into a respected presence within the dispatch market. A renewed emphasis was placed on the product line to make it everything it was originally intended to be and to make sure that Mindshare customers receive the experience they expect when they purchase the product. Jack likes to refer to this as the Orbacom way, the rest of Mindshare thinks its the only way to do business.

The result was the Mindshare product line found in this brochure. A true second generation product supporting existing radio systems with a migration path to today's state of the art digital systems. Mindshare is a responsive company that listens to its customers, works with them on a personal level, and is committed to their success with its products.

**PERRY HOWELL**  
*President / Owner*



**JACK HINES**  
*General Manager*

