

MOTOTRBO™ Capacity Max

Capacity, coverage and control

Your communications system is at the heart of your organisation, helping keep workers productive and enhancing safety at all times. With an architecture optimised for performance, efficiency and scalability, MOTOTRBO Capacity Max can deliver better collaboration and safety to your business.

Whether you operate on a single campus, region-wide or internationally, Capacity Max can scale to meet your needs, and has powerful management tools to help you get the most from the network. A single console provides complete control of system configuration and fault and performance management, plus over-the-air programming ensures that you can reach every radio without disrupting operations.

Capacity Max blends real-world experience with technological innovation to deliver a scalable communications solution that's tailor-made for your organisation. It is a trunked radio system that utilises centralised architecture to reduce deployment complexity and operational cost, while increasing flexibility and scalability. With a dedicated control channel at every site, the system offers a crisp, responsive user experience, with robust performance under load and rapid, smooth roaming across sites. Security is a high priority, with options for authentication, access control and encryption, and Capacity Max is ETSI DMR Tier III compliant, so you can be confident that you are investing in open standard technology that has global support.



Advanced digital trunking

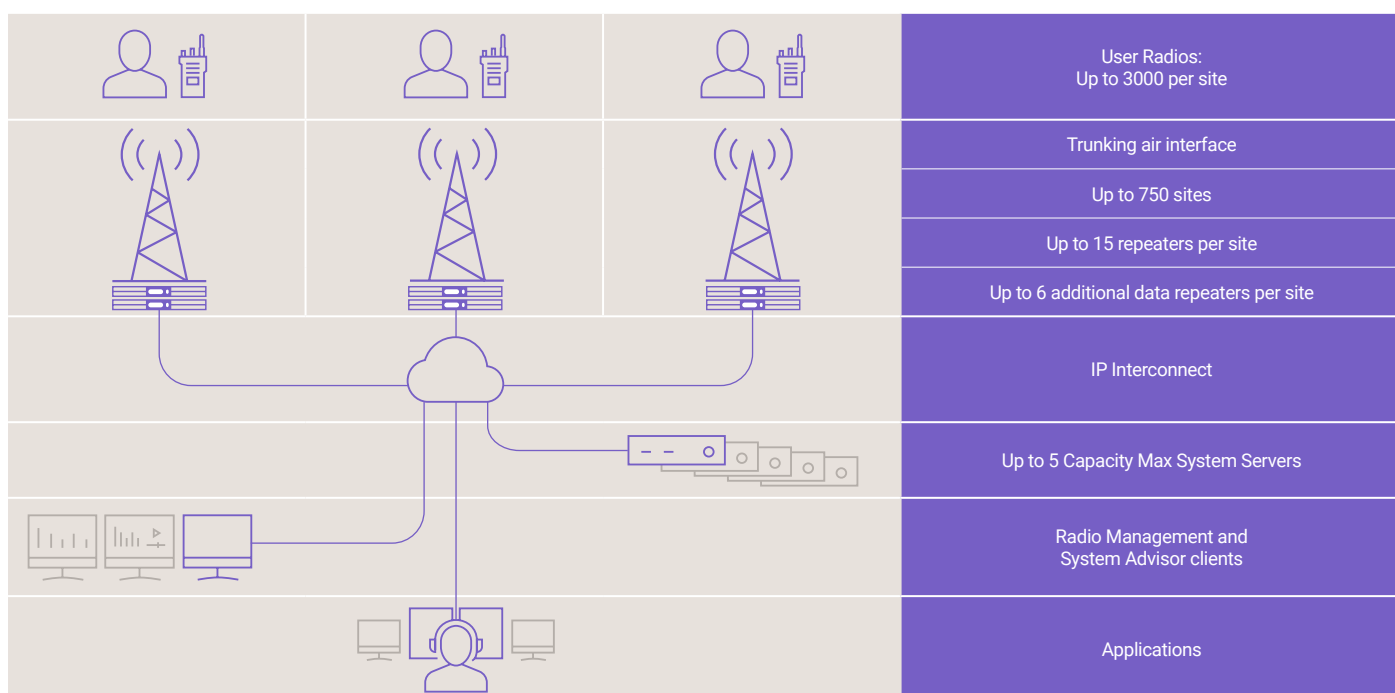
Control and management functions are centralised on the Capacity Max System Server (CMSS), which can also host voice application gateways. In addition, the system utilises a distributed architecture for voice and data, with signalling and traffic routing optimised to make the most efficient use of network bandwidth, minimising cost and maximising performance. There's no need for specialised networking hardware; the system leverages an industry standard IP network and server platform with proven performance and excellent support.

Centralised management for complete control

The job of managing a fleet of radios has evolved into the challenge of managing a full suite of communication resources. Capacity Max gives you centralised control of everything you need, with system management software that gives you command of infrastructure, devices and talk groups, all organised in a logical way to make you more efficient and effective. You can optimise performance and monitor alarms and faults, and the system will even help you to create radio codeplugs. Updating and upgrading is easier too, with processes for pushing out software and firmware patches to the system server, infrastructure and radios.

Smooth scalability

MOTOTRBO Capacity Max makes it easy for you to grow your system as your needs evolve. The system can support up to 750 sites with up to 29 voice/data channels plus an additional 12 dedicated data channels per site. Capacity Max shares many components with other MOTOTRBO systems, making it straightforward to upgrade from IP Site Connect or Capacity Plus, and a wide selection of MOTOTRBO radios can be used, giving you the flexibility to tailor the solution to your operations.



High resiliency, high security

Capacity Max has many layers of redundancy, so that no single failure can bring your system down. Optional redundant system servers, IP switches and site repeaters can be deployed. You can also provision a second control channel per site for ultra-high system availability. Security is a priority throughout the system with encrypted voice and data, plus all radios are securely authenticated to protect your communications. You can even remotely disable and re-enable a device if it is misplaced or stolen to prevent unauthorised access to the system.

DMR Tier III compliant

Capacity Max is compliant with ETSI DMR Tier III and when used with MOTOTRBO radios, it also supports additional enhanced functionality that goes beyond the core interoperability of the standard. Capacity Max supports all the innovative features you'd expect from MOTOTRBO, including digital emergency, work order ticketing, advanced location tracking, long text messaging and remote programming. For customers who need a system that supports other vendors' radios, Capacity Max provides a DMR Tier III "interoperability" mode with these additional features disabled.

Applications

Capacity Max supports Avtec Scout dispatch consoles, plus a broad ecosystem of voice and data applications from the MOTOTRBO Application Developer Program, including the Motorola Solutions sold and supported ConSEL PLUS, SmartPTT PLUS and TRBOnet PLUS control room solutions.

Motorola Solutions Safety & Security Ecosystem

Motorola Solutions is solving for safer. We build and connect technologies to help protect people, property and places. Our solutions enable the collaboration between public safety agencies and enterprises that's critical for a proactive approach to safety and security.

Integrate with the safety and security ecosystem: add a Motorola Edge Node to your MOTOTRBO system and receive automated incident alerts from Orchestrate, our workflow automation platform that connects across voice, data, video, software and analytics.

Extend your team communications across radio and broadband users with WAVE PTX™, a network independent multimedia communication service that connects workers across different devices, networks, and locations. Connect MOTOTRBO and WAVE PTX for seamless talkgroup communication between radio and smartphone users.



Specifications

GENERAL

System type	Trunking with centralised control architecture
Number of RF sites	Up to 750
Repeaters per site	Up to 15 data/voice, plus up to 6 dedicated data repeaters
Radios per site	Up to 3,000 based on standardised low traffic call model. Actual number may be higher or lower and will vary depending on usage
Talkpaths per system	Up to 1,500
Radios per system	Up to 45,000
Repeaters per system	Up to 3,000
Dedicated system controller	Yes, Capacity Max System Server (CMSS)
Redundant system controller	Up to 4 additional controllers for redundancy
Site control channel	Yes, one dedicated channel per site
Redundant control channel	Optional second control channel per site for resilience
Standard call types	Private, Group, All call
Call alert	Yes
Emergency	Yes
Late entry	Yes
Transmit interrupt	Yes
Call pre-emption	Yes
Busy queue (priority levels)	Yes (10)
Priority monitor	Yes
Remote monitor	Yes
Automatic roaming	Yes
Call handover	Yes
Dynamic site assignment	Yes
Critical site assignment	Yes
Dynamic Group Number Assignment	Yes
Subscriber Access Control	Yes
Site restriction by talkgroup	Yes
Stun/revive devices	Yes
Subscriber authentication	Yes
Encryption type	RC4, AES256
Supported radios	Ion, R7, XiR P8600 EX, XiR E8600i and XiR M8600i Series
Supported repeaters	SLR 1000, SLR 5000 and SLR 8000 Series

To learn more about MOTOTRBO, visit motorolasolutions.com/mototrbo



These models available in Motorola Solutions APAC region only. Availability is subject to individual country law and regulations. All specifications shown are typical unless otherwise stated and are subject to change without notice.

MOTOROLA, MOTO, MOTOROLA SOLUTIONS and the Stylized M Logo are trademarks or registered trademarks of Motorola Trademark Holdings, LLC and are used under license. All other trademarks are the property of their respective owners. ©2024 Motorola Solutions, Inc. All rights reserved. 12-2024 [SF05]