

 **MOTOROLA SOLUTIONS**

# MOTOTRBO™ SYSTEMS AT-A-GLANCE







# **BE SAFER, MORE EFFICIENT AND MORE PRODUCTIVE**

**WITH THE POWERFUL DIGITAL PERFORMANCE  
AND ADVANCED CAPABILITIES OF MOTOTRBO.**

# MOTOTRBO™ SYSTEMS

Today more than ever, your workers need to deliver maximum productivity to keep your business competitive. Handling shipments at a seaport, managing maintenance at a resort or serving fans at a sports complex, they all need to have access to business-critical voice and data communications. And there's no better platform for that than MOTOTRBO.

MOTOTRBO makes efficient information-sharing a reality. Our professional digital communication system combines the best of two-way radio functionality with the latest digital technology. It integrates voice and data seamlessly, offers enhanced features that are easy to use and delivers increased capacity to meet your growing communication needs. With exceptional voice quality and long battery life, MOTOTRBO keeps your workers connected when communication is a must.

## REACH EVERYWHERE









When you're running a professional operation, you need more than just radio-to-radio communications. MOTOTRBO has coverage options to suit your needs – whether you're operating in a single building, a large campus, or even multiple locations around the world.

## CONNECT EVERYONE

As your business grows, MOTOTRBO can grow with you. Connecting thousands of radio users and smartphone users in a single location, your capacity options are virtually unlimited.

## STAY IN CONTROL

MOTOTRBO systems offer you complete control of your communications needs. With flexible options for subscriber management and access control, and several levels of security and privacy, you can be confident that your system is operating at maximum efficiency and effectiveness.

IP SITE CONNECT	CAPACITY PLUS	CONNECT PLUS	CAPACITY MAX
CONVENTIONAL	TRUNKING		
			
1 – 15 SITES	1 – 15 SITES	1 – 250 SITES	1 – 250 SITES
			
UP TO 200 USERS*	UP TO 1600 USERS/SITE*	UP TO 3000 USERS/SITE*	UP TO 3000 USERS/SITE*
BASELINE COVERAGE	COST EFFECTIVE CAPACITY	EXCEPTIONAL COVERAGE	COVERAGE, CAPACITY AND CONTROL

\*Maximum capacity, based on standardized low traffic call model



# DIRECT MODE

## SIMPLE CONNECTION

The factory on Commercial Road has a bright future, but currently it's only a single small facility. The workers use MOTOTRBO in Direct Mode to coordinate their activities. The loading dock can call the foreman when parts have arrived, and the factory manager can call down to the shop floor to prioritize an urgent order.

All MOTOTRBO radios have the capability to connect direct: radio-to-radio, for basic voice, data, text and applications support.

But this approach has limitations. For your workforce to communicate, every radio needs to be in range of every other radio. That's not easy when one of your workers is in the basement, and another is out serving a customer.

For a professional solution, you should consider the many system options that MOTOTRBO offers. From affordable conventional systems for the small and medium business to enormous trunked systems that can cover a whole country, MOTOTRBO gives you choices, and the graceful scalability to evolve your communications as your organization grows.

### Dual Capacity Direct Mode

The DMR digital radio standard requires each channel to be split into 2 independent "timeslots". Typically, you can only use 1 of these timeslots unless you have a central timing reference such as a repeater. But with the MOTOTRBO Dual Capacity Direct Mode feature, radios can synchronize with each other - so you can use the full channel capacity. When channel availability is limited, you can use Extended Range Direct Mode to deliver the same great coverage using a single digital channel.



### RADIOS SUPPORTED

- SL 7000 and SL 7000e Series
- XPR 7000 and XPR 7000e Series
- XPR 7580e IS (Canada)
- XPR 6000 Series
- XPR 5000 and XPR 5000e Series
- XPR 4000 Series
- XPR 3000 and XPR 3000e Series
- SL3500e
- XPR 2500
- SL300
- CM300d
- CM200d
- CP200d

### DIMENSIONS

- 0 Sites
- 0 or 1 Repeaters\*
- Up to 100 Radios (recommended)

\*SLR Repeaters can be used for Extended Range Direct Mode.

# CONVENTIONAL SYSTEMS

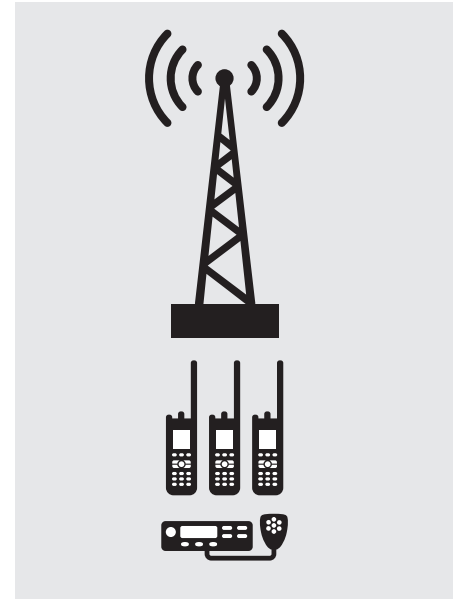
# SINGLE SITE CONVENTIONAL

## BASELINE CAPACITY AND COVERAGE

This city hotel must offer excellent customer service if it is to succeed. Guests need to feel safe, secure and well cared-for. The hotel has installed a MOTOTRBO repeater on the premises, giving excellent coverage all the way from the basement to the penthouse suite. Now, with their Work Order Ticket Management system and MOTOTRBO SL 7000 and SL 7000e radios, the staff have the tools they need to deliver a top-class guest experience.

A repeater brings many benefits to your workplace communications. With high transmitter power and a sensitive receiver, your coverage area is significantly boosted. The digital error correction capability within the unit also improves voice quality. And with the MOTOTRBO repeater IP interface, you can more efficiently implement operations-critical applications such as Work Order Ticketing, GPS Dispatch Consoles and Telephone Interconnect. MOTOTRBO repeaters use both TDMA timeslots of a DMR standard radio channel. Depending on user activity, this can support up to 200 radio users.

Conventional mode uses a high-power repeater and a pair of channels to give you good radio coverage and capacity across a wide area.



### RADIOS SUPPORTED

- SL 7000 and SL 7000e Series
- XPR 7000 and XPR 7000e Series
- XPR 7580e IS (Canada)
- XPR 6000 Series
- XPR 5000 and XPR 5000e Series
- XPR 4000 Series
- XPR 3000 and XPR 3000e Series
- SL3500e
- XPR 2500
- SL300
- CM300d
- CM200d
- CP200d

### DIMENSIONS

- 1 Site
- 1 Repeater
- Up to 200 Radios (recommended)



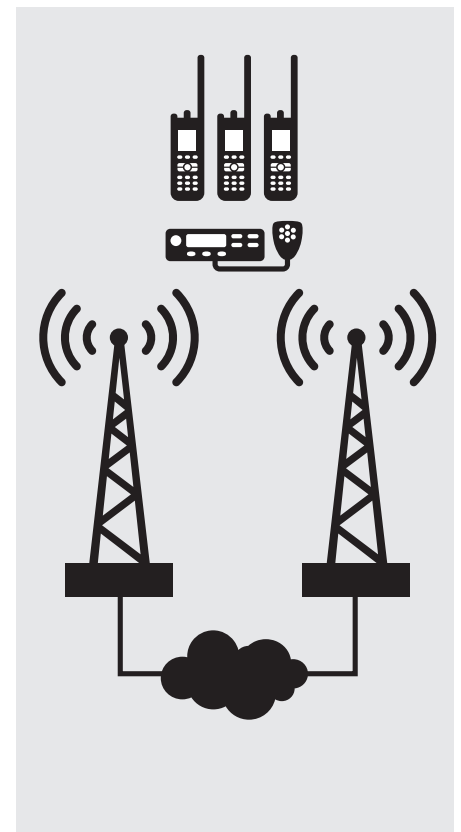
## CONVENTIONAL SYSTEMS

# IP SITE CONNECT

## COST-EFFECTIVE COVERAGE FOR MULTIPLE SITES

This rural School District has 10 facilities spread across a wide geographic area. All facilities need to be able to communicate freely with each other, for emergency response and everyday coordination. The district has deployed a **MOTOTRBO IP Site Connect** system: a repeater at each site giving excellent coverage, all of them linked by an IP network. It's a simple, cost-effective way to keep everybody connected.

When your organization has grown beyond a single location, you should consider MOTOTRBO IP Site Connect. This system uses multiple repeaters connected together with an IP network to create a distributed radio system. Whether you need unified communications across several different facilities, in-fill coverage in difficult geographic areas, or even a single-site multi-band network, IP Site Connect delivers affordable communication coverage.



### Glen Ellyn School District 41 Helps Keep Schools in Touch with MOTOTRBO Radios and IP Site Connect

Glen Ellyn, Illinois, School District 41 relies on MOTOTRBO digital radios to keep communications available during emergencies and increase efficiency for day-to-day operations.

Installation of centrally located roof-mounted repeaters extends signal range, providing coverage throughout the entire district. The district is in a hilly area, which made it even more difficult to get a signal outside the school building.

"The MOTOTRBO radios allow us to talk virtually from anywhere in our district to anywhere in our district, including the bus garages," says the Assistant Superintendent. "We gave their coordinator one of our radios too. That allows us to maintain contact with them."

### RADIOS SUPPORTED

- SL 7000 and SL 7000e Series
- XPR 7000 and XPR 7000e Series
- XPR 7580e IS (Canada)
- XPR 6000 Series
- XPR 5000 and XPR 5000e Series
- XPR 4000 Series
- XPR 3000 and XPR 3000e Series
- SL3500e
- XPR 2500

### DIMENSIONS

- Up to 15 Sites
- 1 Repeater per Site
- Up to 200 Radios (recommended)

# DYNAMIC TRUNKING SYSTEMS

# CAPACITY PLUS

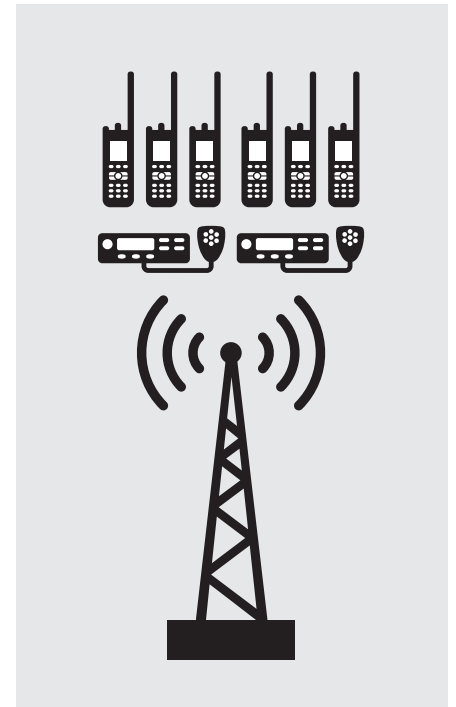
## COST-EFFECTIVE CAPACITY AND COVERAGE FOR SINGLE OR MULTIPLE SITES

This hospital is like a small city, with many buildings, hundred of rooms and extensive maintenance areas. To keep everyone connected, they have installed a **MOTOTRBO Capacity Plus** system. Its innovative Dynamic Trunking makes the best use of the available radio channels. It's a cost-effective way to provide capacity for a single campus site. And if the planned merger with a neighboring healthcare facility goes ahead, they can simply link the two Capacity Plus sites over IP.

Even as your organization grows larger, you need to ensure that you stay efficient. Capacity Plus Single Site and Capacity Plus Multi-Site (formerly known as Linked Capacity Plus) utilize Motorola innovation to pool radio resources and allocate them efficiently.

### Dynamic Trunking

Capacity Plus uses an innovative form of trunking technology to maximize efficiency. Instead of a dedicated control channel, the system creates a "rest channel". All inactive radios monitor this channel. When a new call is initiated, it takes over the rest channel, while radios not involved in the conversation are directed to a new "rest channel". Dynamic trunking does not require a centralized controller or expensive "FB8" license. And it is highly fault-tolerant: even the complete failure of a repeater only reduces system capacity.



### RADIOS SUPPORTED

- SL 7000 and SL 7000e Series
- XPR 7000 and XPR 7000e Series
- XPR 7580e IS (Canada)
- XPR 6000 Series
- XPR 5000 and XPR 5000e Series
- XPR 4000 Series
- XPR 3000 and XPR 3000e Series
- SL3500e
- XPR 2500
- SL300 (limited)

### DIMENSIONS

- Up to 15 Sites
- Up to 12\* Repeaters per Site
- UP to 1600 Radios per Site (recommended)

\*Up to 8 voice and data repeaters, plus up to 11 data revert repeaters, max 12 repeaters in total

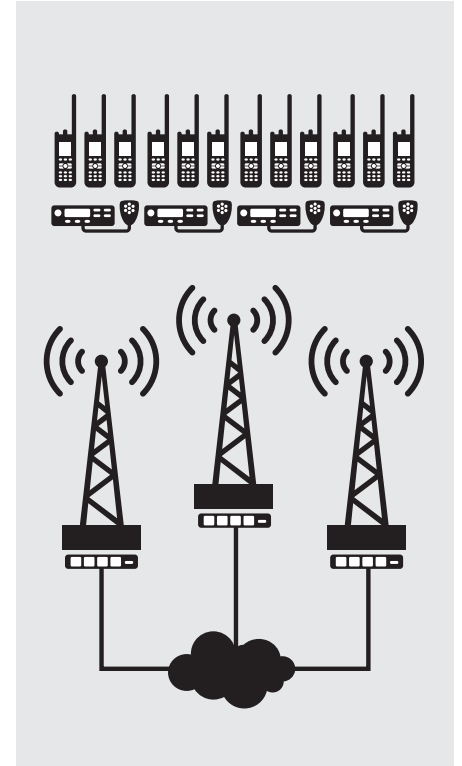
# FULL TRUNKING SYSTEMS

# CONNECT PLUS

## EXCEPTIONAL CAPACITY AND COVERAGE FOR SINGLE AND MULTIPLE SITES

This service provider owns and operates a MOTOTRBO system, offering monthly service plans for organizations in the coverage area. It has been very successful, and the system has now expanded to over 200 sites, covering almost the entire state. Customers such as event managers appreciate the flexibility of short-term radio contracts; others such as logistics companies love the vast coverage area. But it's all brought together with the exceptional coverage and capacity of **MOTOTRBO Connect Plus**.

Connect Plus is the original MOTOTRBO trunking solution. In its latest evolution, it has stretched to cover an exceptional 250 sites, providing capacity and coverage to enormous, multi-national organizations.



### RADIOS SUPPORTED

- SL 7000 and SL 7000e Series
- XPR 7000 and XPR 7000e Series
- XPR 7580e IS (Canada)
- XPR 6000 Series
- XPR 5000 and XPR 5000e Series
- XPR 4000 Series

### DIMENSIONS

- Up to 250 Sites
- Up to 15 Repeaters per Site
- UP to 420 Repeaters per System
- Up to 3000 Radios per Site (recommended)



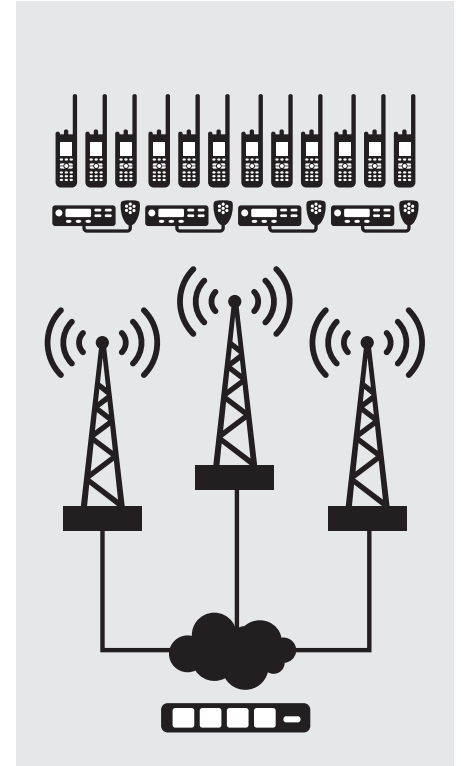
# FULL TRUNKING SYSTEMS

# CAPACITY MAX

## CAPACITY, COVERAGE AND CONTROL FOR SINGLE OR MULTIPLE SITES

This transportation and logistics company has a large fleet of trucks and delivery vehicles criss-crossing the city. They need to have centralized control of their workforce, so they've deployed a **MOTOTRBO Capacity Max** system with a GPS dispatch console. Now they can see exactly where every vehicle is, and optimize their operations using sophisticated fleet management applications. And if any radio needs updating or reconfiguring, the dispatcher can do that remotely from his desktop, with no need to return a vehicle to base.

Capacity Max is MOTOTRBO's next-generation trunking solution. Built on the DMR Tier III Mode of Operation, it delivers smooth scalability, low cost of ownership and reliable operation. Capitalizing on years of experience and customer feedback, the solution is designed for the real world, with valuable features and functionality to enhance operation.



### RADIOS SUPPORTED

- SL 7000 and SL 7000e Series
- XPR 7000 and XPR 7000e Series
- XPR 7580e IS (Canada)
- XPR 5000 and XPR 5000e Series

### DIMENSIONS

- Up to 250 sites
- Up to 21\* Repeaters per Site
- Up to 3000 Radios per Site (recommended)

\* Up to 15 voice and data repeaters plus up to 6 data revert repeaters

# INFRASTRUCTURE

Repeaters, controllers and gateways are the backbone of your MOTOTRBO two-way radio system. They ensure your radio network is available at all times and that communications are clear, reliable and secure across your enterprise.



## SLR 1000 REPEATER

Using the SLR 1000 repeater, you can easily extend the range of your network through dead zones and across remote locations, so everyone's within reach. Deploy the SLR 1000 indoors or out—it's IP65-rated for dust and water protection. The compact size gives you more installation options. And a low power, fanless design uses less space and energy.



## SLR 5000 SERIES REPEATER

A next-generation DMR repeater, the SLR 5000 Series offers high performance, high efficiency and a design for the future. The product has a 50 W continuous-duty output and high sensitivity for optimum coverage, and high reliability and low power consumption for low cost of ownership. With a slim, modular design, the product is easy to install and service, enhanced by thoughtful touches like a built-in battery charger and multi-purpose mounting brackets.



## SLR 8000 SERIES REPEATER

Built on the slim next-generation repeater platform, this repeater supports up to 100 W continuous-duty operation, with high sensitivity for exceptional coverage. The modular design keeps reliability high while allowing for configurable options.



## XPR 8000 SERIES REPEATERS

Maximize the performance of your MOTOTRBO system with the 40 W XPR 8000 Series repeaters. They utilize Dynamic Mixed Mode capability to ease migration by automatically switching between analog and digital mode. The XPR 8000 Series supports two simultaneous voice or data paths in digital mode, doubling capacity without adding new frequencies.



## CONNECT PLUS XRC 9100 CONTROLLER

Deliver greater coverage and information to mobile teams. The XRC 9100 supports single and multi-site Connect Plus systems. Queue calls during busy times until an open channel is available and assign important users priority status when the system is in high demand. The XRC 9100 represents an evolution of the original XRC 9000 MOTOTRBO Connect Plus Controller, and is fully interoperable with new and existing systems.



## CONNECT PLUS XRT 9100 GATEWAY

Reach your large workforce efficiently. The XRT 9000 links Connect Plus with an IP-based wire-line console for centralized dispatch. The XRT 9100 represents an evolution of the original XRT 9000 MOTOTRBO Connect Plus Gateway, and is fully interoperable with new and existing systems.



## CONNECT PLUS XRI 9100 INTERCONNECT GATEWAY

With the MOTOTRBO Connect Plus Telephone Interconnect feature, you can connect your staff to people inside and outside your business, on their fixed or cellular phones. Handle customer queries direct, and manage inter-company transactions seamlessly. The MOTOTRBO Connect Plus XRI 9100 Interconnect Gateway improves your efficiency and responsiveness.



## CAPACITY MAX SYSTEM SERVER

As part of the next-generation Capacity Max trunking solution, the System Server hosts control and management functions. Each server can support up to 100 voice/data talkpaths. Redundant servers can be provisioned to increase system resilience.



## WAVE SERVER

Get robust and secure management of your client accounts. The WAVE Server provides the interface between public cellular networks and the MOTOTRBO radio network for secure centralized provisioning, flexible client management, call history, upgrades and diagnostics.



# WORK GROUP COMMUNICATIONS

With wireline integration to MOTOTRBO Connect Plus, Capacity Plus and Capacity Max systems, WAVE Work Group Communications lets your mobile and office workers connect with simple, secure and affordable broadband push-to-talk (PTT), wherever they are.

## UNIFIED COMMUNICATIONS BETWEEN YOUR DEVICES AND NETWORKS

WAVE provides a communications interoperability platform for push-to-talk between all your devices. WAVE connects your disparate networks such as radio, cellular, Wi-Fi, telephony and more so you can communicate between them. Whether on a smartphone, radio, desktop pc, landline or any other communications device, your personnel can connect instantly.

The end result? You no longer need to carry multiple devices. You stay connected even when you're across networks and geographic boundaries. And your operations keep running smoothly more coordinated responses, smarter decisions and safer outcomes.

### LEVERAGE BROADBAND

Bring secure push-to-talk to the smart devices your team is already using.

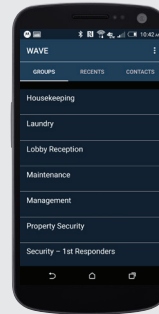
### INTEGRATE NETWORKS

Connect radio systems together for better real-time coordination and response.

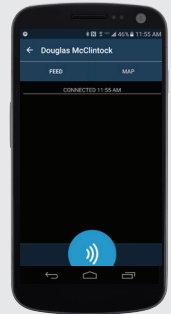
### USE ANY DEVICE

Freely communicate on the device that suits you best, from virtually any location.

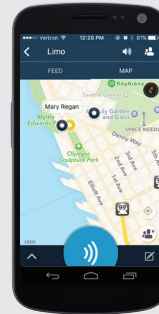
## WAVE MOBILE COMMUNICATOR



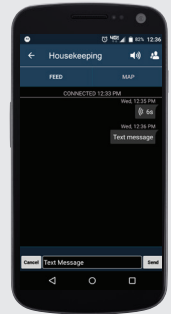
Group Call



Private Call



Mapping



Group Text

## WAVE COMMUNICATORS

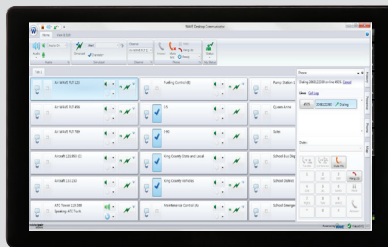
### ENABLE YOUR WORKFORCE TO CONNECT AND COLLABORATE

Whatever the device or available network, WAVE has client applications that meet the needs of all types of users. Called WAVE Communicators, these applications provide the user interface to a WAVE communications system.



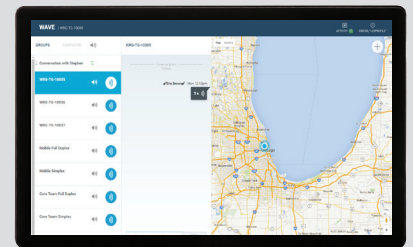
### WAVE ADVANCED DESKTOP COMMUNICATOR

Transform your dispatch operations with a powerful software application designed to provide many of the capabilities needed by enterprises and critical infrastructure organizations.



### WAVE DESKTOP COMMUNICATOR

Provide office-based or mobile workers with a feature-rich application to monitor, transmit and receive audio from multiple communication systems.



### WAVE WEB COMMUNICATOR

Talk from any browser, where ever you are, with a HTML5-based web client.





# SYSTEM COMPARISON TABLE

	DIRECT MODE	SINGLE SITE CONVENTIONAL	IP SITE CONNECT	CAPACITY PLUS	CONNECT PLUS	CAPACITY MAX
<b>REPEATERS</b>	0 or 1 <sup>1</sup>	1	15	120	420	5250
<b>SITES</b>	0	1	15	15	250	250
<b>RADIOS / SITE</b>	–	200	200	1600	3000	3000
<b>RADIOS<sup>2</sup></b>	100	200	200	24000	70000	90000
<b>TRUNKING</b>	N	N	N	Dynamic	Full	Full
<b>ETCA (COLLISION MITIGATION)</b>	N	N	N	N	Y	Y
<b>PRIORITIZATION</b>	N	N	N	N	Y	Y
<b>STORE AND FORWARD TEXTS</b>	N	N	N	N	Y	N
<b>SL 7000 AND SL 7000e SERIES</b>	Y	Y	Y	Y	Y	Y
<b>XPR 7000 AND XPR 7000e, XPR 5000 AND XPR 5000e SERIES</b>	Y	Y	Y	Y	Y	Y
<b>XPR 6000, XPR 4000 SERIES</b>	Y	Y	Y	Y	Y	N
<b>XPR 3000 AND XPR 3000e, XPR 2500 SERIES</b>	Y	Y	○	○	N	N
<b>SL300</b>	Y	Y	N	Limited <sup>3</sup>	N	N
<b>CP200D, CM200D, CM300D</b>	Y	Y	N	N	N	N

1. SLR Repeaters can be used for Extended Range Direct Mode.
2. Maximum capacity, based on standardized low traffic call model
3. For single site systems with up to 2 repeaters

To do more with digital throughout your enterprise, visit [www.motorolasolutions.com/mototrbo](http://www.motorolasolutions.com/mototrbo)

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