



# 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.

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

\*Maximum capacity, based on standardised 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 prioritise 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.



### RADIOS SUPPORTED

- SL4000e Series
- DP4000 Ex Series
- DP4000e Series
- DP3441e
- DP2000e Series
- SL1600
- DP1000 Series
- DM4000e Series
- DM2000 Series
- DM1000 Series

### DIMENSIONS

- 0 Sites
- 0 Repeaters
- Up to 100 Radios (recommended)

### 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 synchronise with each other - so you can use the full channel capacity.



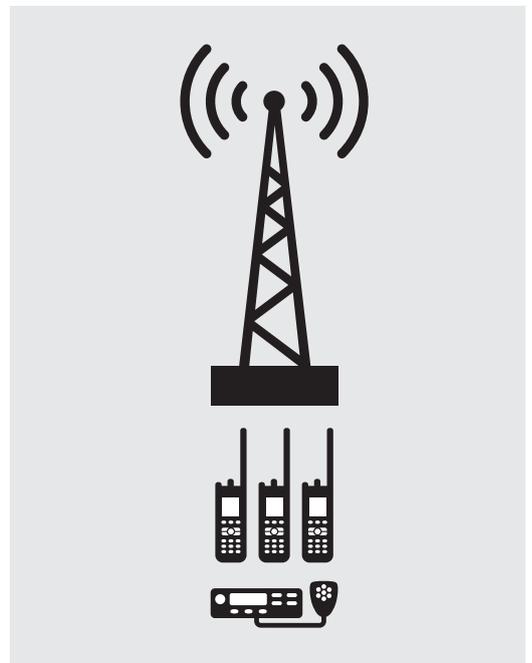
## CONVENTIONAL SYSTEMS

# 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 SL4000e 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.



### RADIOS SUPPORTED

- SL4000e Series
- DP4000 Ex Series
- DP4000e Series
- DP3441e
- DP2000e Series
- SL1600
- DP1000 Series
- DM4000e Series
- DM2000 Series
- DM1000 Series

### 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.

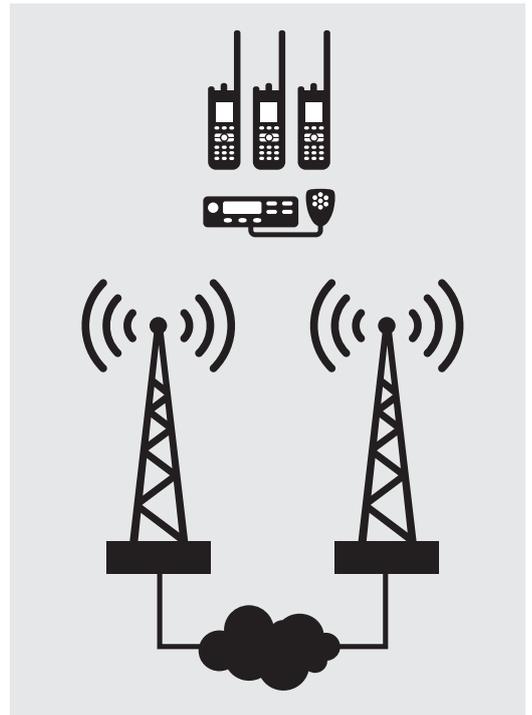
When your organization has grown beyond a single location, you should consider MOTOTRBO IP Site Connect. This system uses multiple repeaters connected together with an IP network to create a distributed radio system. Whether you need unified communications across several different facilities, in-fill 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

- SL4000e Series
- DP4000 Ex Series
- DP4000e Series
- DP3441e
- DP2000e Series
- SL1600
- DP1000 Series
- DM4000e Series
- DM2000 Series

### DIMENSIONS

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

# DYNAMIC TRUNKING SYSTEMS

# CAPACITY PLUS

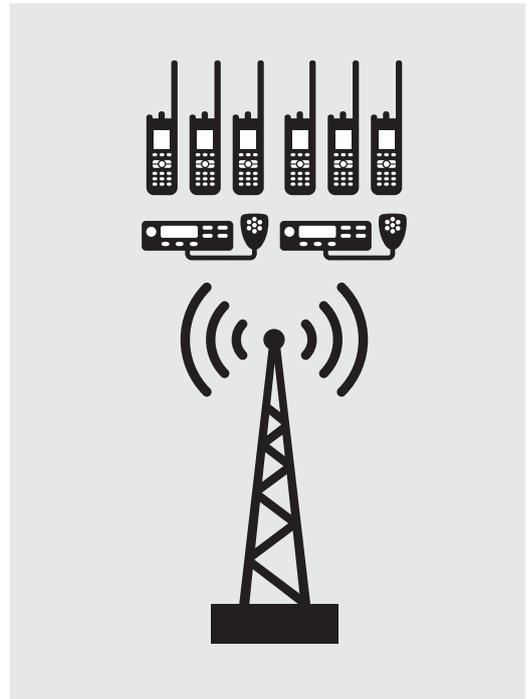
## COST-EFFECTIVE CAPACITY AND COVERAGE FOR SINGLE OR MULTIPLE SITES

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 organisation 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) utilise Motorola innovation to pool radio resources and allocate them efficiently.

### DYNAMIC TRUNKING

Capacity Plus uses an innovative form of trunking technology to maximise 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 centralised controller and it is highly fault-tolerant: even the complete failure of a repeater only reduces system capacity.



### RADIOS SUPPORTED

- SL4000e Series
- DP4000 Ex Series
- DP4000e Series
- DP3441e
- DP2000e
- DM4000e Series
- DM2000 Series

### DIMENSIONS

- Up to 15 Sites
- Up to 10 Repeaters per Site\*
- Up to 1600 Radios per Site (recommended)

\*Up to 8 voice and data repeaters, plus up to 12 data revert repeaters, max 10 repeaters in total.



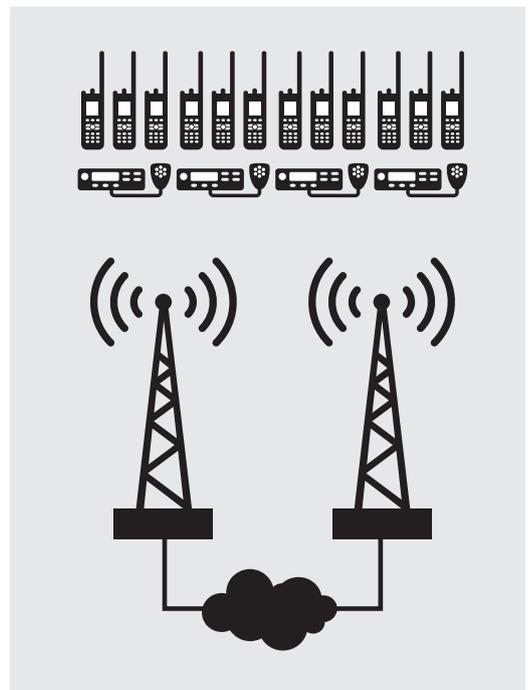
## FULL TRUNKING SYSTEMS

# 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 centralised 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 optimise 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. Capitalising 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

- SL4000e Series
- DP4000 Ex Series
- DP4000e Series
- DP3441e
- DM4000e 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.



## SLR5500 REPEATER

A next-generation DMR repeater, the SLR5500 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 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.



## 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 centralised provisioning, flexible client management, call history, upgrades and diagnostics.

# WAVE™ WORK GROUP COMMUNICATIONS

With wireline integration to MOTOTRBO Connect Plus and Capacity Plus (single and multi-site) 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.

## WAVE 3000

### EXTEND MOTOTRBO TO SMARTPHONES AND TABLETS

WAVE 3000 delivers instant and secure broadband PTT communications for small to medium businesses. Whether you're communicating with MOTOTRBO radio users or with other smartphone users, WAVE 3000 makes it simple and affordable. WAVE 3000 can be integrated with your MOTOTRBO Connect Plus, Capacity Plus and Linked Capacity Plus systems, but can also be used as a standalone broadband PTT solution where radios are not required.

### TURN YOUR APPLE OR ANDROID DEVICE INTO A MULTI-CHANNEL PTT HANDSET

Not everyone needs or wants to carry a radio handset. But they do want instant, secure access to important communications wherever they are. With a WAVE Mobile Communicator installed on a smartphone, tablet or custom handheld, any user can access MOTOTRBO communications from any location, talking with groups of other users or individuals as required.

## WAVE 5000

### INTEGRATE MOTOTRBO WITH ENTERPRISE IT AND EXTEND TO PCS, TELEPHONY, SMARTPHONES AND TABLETS

WAVE 5000 enables highly scalable, feature rich, enterprise grade PTT on broadband networks and devices so that critical, time-sensitive information flows quickly and securely between mobile workers, teams and citizens.

From two-way radios to smartphones, laptops to landlines, tablets to rugged handhelds, WAVE 5000 lets your users use the devices they already have and the networks they already subscribe to connect and talk to others both inside and outside of your communications environment. Wireline or donor radio integrations with MOTOTRBO ensure system scalability and deployment flexibility.

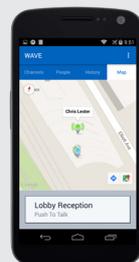
## WAVE MOBILE COMMUNICATOR FOR WAVE 3000 AND WAVE 5000



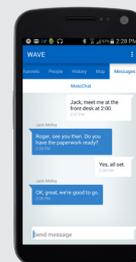
Group Call



Private Call



Mapping



Group Text

## WAVE COMMUNICATORS

### ENABLE YOUR WORKFORCE TO CONNECT AND COLLABORATE

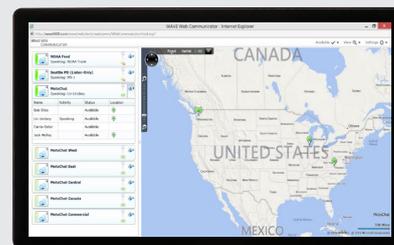
Whatever the device or available network, WAVE has client applications that meet the needs of all types of users. Called WAVE Communicators, these applications provide the user interface to a WAVE communications system.



Define and manage your MOTOTRBO communications environment with WAVE Advanced Desktop Communicator.



Give authorised PC users controlled access to MOTOTRBO communications channels with the WAVE Desktop Communicator.



With WAVE Web Communicator you can use a web browser to access your MOTOTRBO radio channels.



## SYSTEM COMPARISON TABLE

	DIRECT MODE	SINGLE SITE CONVENTIONAL	IP SITE CONNECT	CAPACITY PLUS	CAPACITY MAX
<b>MAX REPEATERS</b>	0	1	15	120	4000
<b>MAX SITES</b>	0	1	15	15	250
<b>MAX RADIOS / SITE</b>	–	200	200	1600	3000
<b>MAX RADIOS<sup>1</sup></b>	100	200	200	24000	45000
<b>TRUNKING</b>	N	N	N	Dynamic	Full
<b>ETCA (COLLISION MITIGATION)</b>	N	N	N	N	Y
<b>PRIORITISATION</b>	N	N	N	N	Y
<b>STORE AND FORWARD TEXTS</b>	N	N	N	N	Y
<b>SL4000e SERIES</b>	Y	Y	Y	Y	Y
<b>DP4000e, DM4000e SERIES</b>	Y	Y	Y	Y	Y
<b>DP4000 Ex SERIES</b>	Y	Y	Y	Y	Y
<b>DP3441e</b>	Y	Y	Y	Y	Y
<b>DP2000e, DM2000 SERIES</b>	Y	Y	Y	Y	N
<b>SL1600, DP1000 SERIES</b>	Y	Y	Y	N	N
<b>DM1000 SERIES</b>	Y	Y	N	N	N

<sup>1</sup> Maximum capacity, based on standardised low traffic call model

<sup>2</sup> Not DP4401Ex

To get connected with MOTOTRBO, visit [www.motorolasolutions.com/mototrbo](http://www.motorolasolutions.com/mototrbo) or find your closest Motorola representative or authorised Partner at [www.motorolasolutions.com/contactus](http://www.motorolasolutions.com/contactus)

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