



# NEW MEADOWLANDS STADIUM KEEPS STAFF TALKING AND FANS HAPPY



New Meadowlands Stadium deploys digital MOTOTRBO™ radios with Capacity Plus to help employees collaborate and ensure superior guest experience.

## SITUATION

**New Meadowlands Stadium Company needed greater capacity and coverage for its new 2.1 million square foot stadium but obtaining new frequencies would be a challenge.**

With nearly 4,000 workers trying to keep more than 82,000 enthusiastic football fans happy in the new stadium, staff would need to rely heavily on two-way radios to communicate. Having leased an analog system in the old stadium, which would not provide the sufficient capacity and coverage required in the new stadium, the organization decided to purchase a new system. This meant obtaining new frequencies—a challenge, especially in a major metropolitan area.

## SOLUTION

**MOTOTRBO digital two-way radio system with Capacity Plus would easily accommodate the stadium's expanded workforce and enable coverage throughout the stadium.**

MOTOTRBO digital technology divides each frequency into two time slots, doubling the number of users on

the system and reducing the number of frequencies the organization would need to purchase. MOTOTRBO also provides crisp, clear audio all the way to the edge of the coverage area, extending usable range. And with MOTOTRBO's noise-cancelling technology and sophisticated audio accessories, even most staff working inside the noisy environment of "the bowl" on game day would be able to clearly hear messages.

## RESULT

**With New Meadowlands Stadium's MOTOTRBO digital two-way radio system, staff can easily collaborate and offer excellent service to fans.**

"Motorola is a very strong partner to the National Football League (NFL) and the Official Wireless Communications Provider of the NFL for the past 13 years. MOTOTRBO radios gave us the opportunity to control our destiny," says Peter Brickman, New Meadowlands Stadium CTO. "We wanted our own frequencies; to own our own hardware and maintain it; and ensure that our people would have the communications they needed to do their jobs. The MOTOTRBO system is a vital asset to stadium operations."

## CUSTOMER PROFILE

### Users

- Security, Guest Services, Concessions, Operations, Maintenance

### Applications

- Reliable, available two-way communications throughout stadium

### Motorola Solutions

- MOTOTRBO XPR™ 6550 Display Portable Radios
- MOTOTRBO XPR™ 4550 Mobile Radios (control stations for dispatch)
- MOTOTRBO XPR™ 8300 Repeaters
- MIP 5000 VoIP Radio Console
- Capacity Plus Single-Site Trunking
- Motorola Original Audio Accessories
- Text Messaging Application

### Solution Feature

- Expanded capacity with 32 talk groups
- Enhanced coverage throughout 2.1 million square foot stadium and grounds
- Exceptional noise-cancelling audio, even on high-noise game days

## Reliable communications critical for new 2.1M square foot stadium

Opening its doors in March 2010, New Meadowlands Stadium, located in East Rutherford, NJ, is the new home of the NFL's New York Jets and New York Football Giants. Also serving as the venue for many other large-scale events, the stadium can host 82,500 fans and offers the latest technology for quicker ticket scanning, faster trips to the concession stand and instant HD video highlights throughout the building to provide memorable event day experiences for all guests.

### The first of its kind

As the first venue in the nation to serve as home for two NFL teams, the \$1.6 billion, privately financed New Meadowlands Stadium is a 50-50 joint venture between the New York Jets and the New York Football Giants. Completed in early 2010, the stadium employs nearly 4,000 workers and will host 20 NFL games per season, as well as numerous other events ranging from international soccer to high-profile rock concerts.

### New stadium, even higher standards

With the introduction of its new venue, the New Meadowlands Stadium Company committed to providing an exciting and safe event day experience for all guests, a goal each employee takes very seriously. In order to achieve that goal, however, staff members must be able to seamlessly communicate and collaborate, no matter where they are within the stadium or on the grounds.

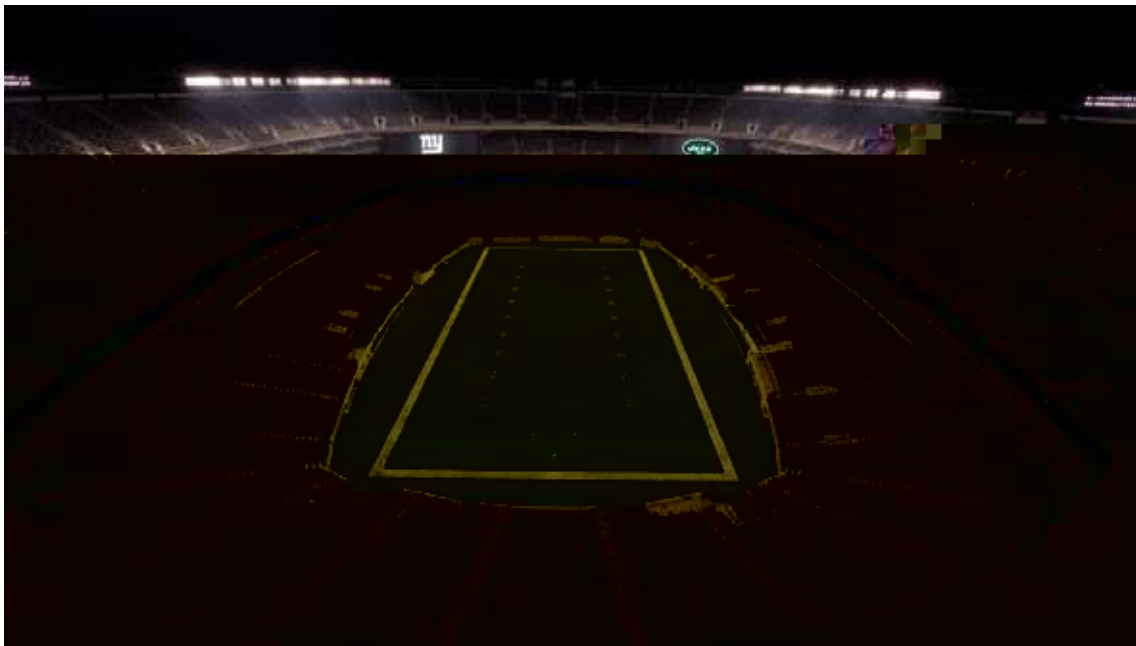
"It was vital that every one of our departments, from Security to Guest Services to Operations, would be able to identify issues and resolve them quickly," says Peter Brickman, New Meadowlands Stadium CTO.

### Addressing capacity issues first

Trying to keep more than 82,000 enthusiastic football fans happy in the new stadium requires staff to depend on two-way radios to communicate. Prior to moving from the old stadium to the new facility, a leased analog system was employed. However, with the much larger stadium and larger staff, that system would be unable to handle the load, resulting in numerous channel busies and unacceptable radio interference.

One potential solution to the problem would be to add frequencies; however, obtaining enough frequencies, especially in a major metropolitan area, can be a problem.

"When we started the process, we were told that it would be extremely challenging getting all the frequencies we needed because they just might not be available," Brickman says. "We knew we would need to find a radio system that we could build and manage around the frequencies we would be able to get in order to adequately meet the organization's needs."



## CASE STUDY

### NEW MEADOWLANDS STADIUM

#### **Next, extending coverage and improving audio quality**

The size of the stadium also represented a coverage challenge. The massive 2.1 million square foot arena was too large for the limited range of the analog radios. Inadequate range would prevent the consistently available communications Brickman needed in order to ensure that stadium staff had the tools they needed to fully collaborate and get the job done quickly and efficiently.

And finally, audio quality was a concern. Anyone who has ever managed an arena that hosts sporting events, concerts and other activities that bring together large numbers of fans is familiar with the importance of a communications system that can overcome high noise levels. Audio quality would be a critical requirement at New Meadowlands Stadium, especially in the midst of extreme noise produced by high-energy game days when touchdowns and great plays can raise crowd noise to levels of 120 decibels (dB) or more.

#### **New Meadowlands Stadium opts for MOTOTRBO Digital Radios**

New Meadowlands Stadium Company decided to purchase a new system that it could own, operate and maintain itself. That also meant obtaining new frequencies—a challenge anywhere, but especially in a major metropolitan area.

Brickman knew he had a challenge on his hands and called in experts from Regional Communications, a local Motorola channel partner, to discuss a solution. Regional Communications recommended a MOTOTRBO digital two-way radio system with Capacity Plus.

#### **Double the capacity, extend range and enjoy crystal clear audio**

MOTOTRBO's digital technology would address New Meadowlands Stadium's capacity issues by dividing the stadium's frequencies into two time slots, doubling the number of users on the system with no increased risk of interference, and enabling the use of multiple data applications. Capacity Plus, a single-site trunking solution, would expand system capacity even further, enabling over a thousand radio users to quickly and efficiently share business-critical voice and data communication on the same system while using the same frequencies obtained by New Meadowlands.

**“MOTOTRBO’s digital technology would allow us to not only double the capacity of our existing channels, but also cut them into the 30-plus talk groups that we needed. It would use the spectrum we were granted very efficiently and establish a stable communications environment for New Meadowlands Stadium.”**

*Peter Brickman, New Meadowlands Stadium CTO*

The company purchased a MOTOTRBO system that consisted of digital portable radios, an MIP 5000 dispatch console that tied into MOTOTRBO control stations, and six repeaters for 12 voice and data paths. To address the needs of each specific job function, the stadium also purchased a variety of audio accessories that would provide the level of capability required by security, guest services, parking and the management teams. For example, noise-cancelling remote speaker microphones and headsets enable messages to be heard, even by those working in the “bowl” during games and concerts. The security team, that required greater discretion, opted for two-wire surveillance kits. All radios were equipped with text messaging capabilities.

#### **A new communications system fit for a new stadium**

New Meadowlands Stadium now has consistent and available communications throughout the facility and parking area. With the ability of Capacity Plus to handle up to 1,200 users per system, there is enough capacity to ensure that every employee who needs to will be able to communicate every time. And because it did not have to purchase additional repeaters to accommodate the added capacity due to split frequencies, costs were kept to a minimum.



MOTOTRBO XPR Radios

**“Spectrum is becoming a rare commodity. Therefore, you must be more efficient with what you have. With MOTOTRBO, we were able to create a large-scale communications environment that was very efficient with radio spectrum, delivered high audio quality and kept the cost at a reasonable level, considering the number of users on the system.”**  
Peter Brickman, New Meadowlands Stadium CTO

**Calling all hands or select individuals**

The stadium’s MIP 5000 VoIP Radio Console uses a multicast-enabled IP network, simplifying installation and saving time and money. With the addition of a text application, dispatchers can easily send group text messages to all employees, to select groups or to individuals as needed. For operations and security, this feature lets dispatchers alert appropriate staff members when gates are ready to open, when the game has started, when it’s half time or when the game is over.

The system also allows staff to quickly react and work together during emergency situations. “We’ve had situations where we’ve had to quickly communicate to our fans and staff,” says Brickman. “On those occasions, dispatchers do a radio all-call and then follow that up with a text message so they can document the communication. If someone misses the all-call, their radio provides a supplemental alert to that user that lets them know something is going on that they need to be aware of.”

**“The stadium is like a small city”**

Whether staff is trying to respond to guest requests, such as additional refreshments for one of the suites, or fix an escalator that is malfunctioning, the reliability and quality of the MOTOTRBO system improves efficiency, productivity and ultimately guest satisfaction.

“With over 82,000 people and 4,000 employees on site on any given day, the stadium is like a small city,” says Brickman. “You’re trying to keep everybody happy and safe and that means we need to get our people where they are supposed to be, ensure the safety and security of guests and staff, and keep things running smoothly.”

**OTHER ADVANTAGES**

The Motorola channel partner also explained that MOTOTRBO’s digital technology would address other critical challenges, including:

- Rejecting static, suppressing background noise and minimizing interference from other users, enabling all users to transmit and receive crisp, clear audio as needed
- Enhancing voice quality at some of the farthest margins of the RF range to provide more reliable coverage, making it easier to hear and understand conversations, even at long range and in difficult environments
- Enabling integrated data applications such as text messaging, GPS-based location tracking, workforce productivity applications and much more
- 40% longer battery life for greater reliability throughout extended work shifts

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