THE EVOLUTION
OF RADIO COMMUNICATIONS
MOTOTRBO® Nitro™

MOTOROLA SOLUTIONS

MOTOTRBO® Nitro™

GET READY TO EXPERIENCE INNOVATION.

RADIO HAS COME A LONG WAY.

In the generations since its discovery in the 1800s, radio technology has powered some of the most pivotal moments in history. Radio transformed the way we consumed news with the first news broadcasts in 1920. It was instrumental in WWII, when the iconic "walkie talkie" helped Allied troops communicate on the front lines. It was the reason we could hear, "That's one small step for man, one giant leap for mankind,"live as we saw Neil Armstrong touch town on the moon from over 200,000 miles away.

Today, Land Mobile Radio (LMR) has matured and become an indispensable tool for businesses of all types, from hotels, to theme parks, factories, and warehouses. As other communications technologies were introduced, from early cellular communications in the 1980s, to WiFi and LTE in the 1990s and 2000s, radio has continued to be the communication tool of choice for the most important business and mission-critical communications.

That's because radio offers the fastest and most reliable means to communicate. With modern Push-to-Talk (PTT) technology, employees can talk instantly, without the dialing, routing, ringing, and answering steps of a regular phone call. And without the typing or dictating and sending of text messages. With no distractions to get in the way, PTT is what professionals use to get the job done right, when getting it done right the first time is critical.

The trouble is that while your LMR network is helping your teams stay safe, smart and connected, adding broadband data for business applications can be tricky. Consumer solutions just won't cut it at a commercial site. WiFi coverage and capacity can be limited. Access points can be temperamental. WiFi just wasn't designed for complex commercial operations like yours.

NOW THERE'S A BETTER WAY.

MOTOTRBO Nitro is the new platform that combines business-critical voice with lightning-fast private broadband data.

Nitro delivers clear, crisp voice quality and comprehensive on-site coverage, blanketing every corner of your operation. It supports all your devices—from radios and smartphones to specialized handsets—and extends your existing voice network to support a universe of data applications, including security, productivity, work-order ticketing and customer service apps.

Adding Nitro to your current setup couldn't be easier. We design, install, manage and maintain the entire system. You pay a monthly subscription. No up-front network costs or unexpected surprises.

MOTOTRBO Nitro. One seamless solution for crystal clear, instant voice communications and secure, enterprise-grade broadband.

AT THE FOREFRONT OF RADIO INNOVATION

1886
Heinrich Rudolf Hertz becomes the first person in history to broadcast and receive radio waves.

1943
Galvin Manufacturing Corporation (later renamed Motorola) debuts the world's first FM portable two-way radio, the SCR300 "walkie-talkie" backpack, for the U.S. Army.

1972
Motorola's MODAT mobile data radio system allows users in vehicles to transmit and receive data from dispatch computers.

1999
WiFi is introduced for home use.

2009
The first commercial LTE deployment launches

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1933
Bayonne, New Jersey police department is the first to operate a Land Mobile Radio (LMR) system.

1958
Motorola introduces the Motrac radio, the world's first vehicular two-way radio.

1983
The world's first commercial handheld cellular phone, the Motorola DynaTAC, receives approval from the U.S. Federal Communications Commission.

2006
Motorola introduces MOTOTRBO professional digital radios, offering businesses integrated voice and data applications with increased system capacity.

2019

MOTOTRBO® Nitro™

launches—the first fully-managed platform that combines business-critical voice with private broadband data, enabling a unified, seamless, hassle-free operation.

MOTOTRBO NITRO: RADIO EVOLVED

If only Heinrich Hertz could see it now. The inventor, who in 1886 was the first person to broadcast and receive radio waves, famously quipped, "I do not think that the wireless waves I have discovered will have any practical application." Of course, his discovery helped change the very nature of communications. Today, radio is still evolving, adding powerful features and applications that Hertz could only have dreamed of.

The Bayonne, New Jersey police department is widely credited as the first to operate a Land Mobile Radio (LMR) system in 1933. LMR networks revolutionized radio communications, allowing instant communications at the push of a button.

In 1943, Motorola, then called Galvin Manufacturing Corporation, introduced the first FM portable two-way radio, the SCR300 backpack, for the U.S. Army. This "walkie-talkie" as it was referred to, helped the Allies communicate more effectively in World War II and the technology evolved in the decades to come.

From the 1940's to the 1970's, devices were added to mobile vehicles, transistors were incorporated that allowed them to greatly shrink in size and data capabilities were added.

Mobile communications took another leap in 1983 when the first commercial handheld cellular phone, the Motorola DynaTAC, was approved by the FCC and went on sale shortly thereafter. While businesses began to adopt cellular phones, their limitations as an enterprise communications tool meant that they often took a backseat to other technologies, such as LMR.

In 1999, mobile data took another step forward as WiFi was introduced for home use and became more ubiquitous in the enterprise space. As devices came to market with embedded WiFi chips, more businesses began offering guests WiFi access to make use of them, while also using WiFi for wireless enterprise use. This advance did have it drawbacks, however, including finicky access points, tedious sign-on processes, and spotty coverage over distances.

As the demand for mobile data grew, Motorola introduced MOTOTRBO professional digital radios in 2006, a breakthrough solution that revolutionized business critical communications..

The first commercial LTE deployment went live in 2009 and mobile enterprise apps became more powerful, taking advantage of the new speeds the network offered. Now workers could accomplish tasks on their mobile devices that previously required a computer or their physical presence at work. However, network congestion, weak signals in certain locations, and security remain issues for enterprises using public LTE for business.

Today, MOTOTRBO Nitro offers the first fully-managed platform that combines business-critical voice with private broadband data. The platform supports all devices, from radios, to smartphones, and specialized handsets, while enabling a universe of blazing fast applications. All delivered as a secure, enterprise-grade service without the limitations of WiFi and public broadband.

MOTOTRBO® Nitro™

BUILT FOR DEMANDING WORKPLACE ENVIRONMENTS

Nitro is purpose-built for your business. With its high-fidelity audio, enterprise grade private broadband, 24/7/365 support, predictive network monitoring and simple-to-deploy infrastructure, Nitro is a powerful tool to help your business thrive. See how boosting your network with Nitro can elevate your workplace operations.

NITRO IN ACTION
MANUFACTURING

At a manufacturing facility, WiFi and cellular data can be inadequate. With so much metal and heavy machinery in the workplace environment, even the most traditional network coverage can be problematic - putting your team's safety and productivity at risk.

MOTOTRBO Nitro provides your bustling facility with custom coverage to put your WiFi problems behind you, and puts actionable intelligence in the hands of your workers, instantly. Leverage your Nitro network to deliver IIoT data and other machine automation processes, so when a machine breaks down, key personnel will be notified. Maximize uptime by taking photos and videos of broken machines and sending real-time video to an expert to get your facility back up and running. Enhance the perimeter security by connecting your Nitro network to security cameras across the premises. Boost the productivity of your entire manufacturing operations with MOTOTRBO Nitro — the fully-managed platform that combines business-critical voice with private broadband data.
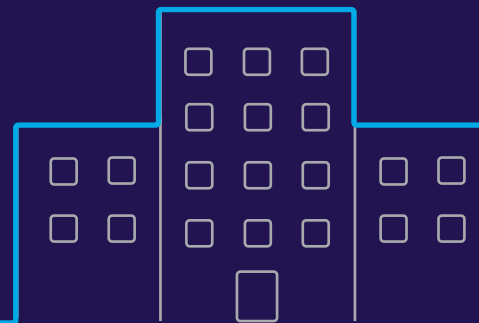
NITRO IN ACTION
HOSPITALITY

For large hotels and theme park attractions, WiFi and cellular data can often become saturated due to guests leveraging the enterprise network. That means the safety, security, and overall productivity of your workplace can be put at risk simply because the communication efficiency of your workers has been compromised.

MOTOTRBO Nitro will provide your resort with a single voice and data network - taking voice communications and data collection across your workplace operations to new heights. Work order ticketing, emergency calling and instant communication ensures complete satisfaction for all guest requests. Enhance guest and worker safety by connecting your Nitro network to capture both photos and videos around your business. Reach five-star readiness with Nitro - converging business-critical voice with lightning fast data.

NITRO IN ACTION
TRANSPORTATION

In the transportation and logistics industry, ontime arrival and departure is imperative to business success. But environments can be dangerous - surrounded by fuel trucks and heavy machinery. And traveling passengers can congest WiFi and cellular coverage. Avoiding delays can be a challenge.

Let MOTOTRBO Nitro help keep your deliveries on track. Experience enhanced data coverage on the tarmac, at the loading docks and in the airport. Nitro is capable of handling images, automating the scanning and distribution process, tracking assets, and more - all from a single voice and data network. It can even enhance the safety and security of your operations by wirelessly connecting with the cameras in and around your business. Boost your operations to new heights and keep the flow of passengers and goods seamless by converging business-critical voice with lightning-fast data.

NITRO IN ACTION
UNIVERSITIES

On college campuses, everyone from teachers and campus security to administration workers and more - is using a multitude of different communications devices. In addition, with so many students on campus WiFi and other cellular networks can easily become congested in times of emergency, putting the safety and security of students and educators at risk.

MOTOTRBO Nitro provides universities with a single voice and data network. With Nitro, operations-critical communications amongst teachers and security officers runs on a private network will and no longer be susceptible to WiFi congestion created by students. Safety and security on and around campus can be taken to new heights by leveraging the Nitro network to connect wireless video across stadiums, dormitories and other on-campus buildings. Converging business-critical voice with lightning fast data, Nitro helps your students and staff concentrate on their futures - so students can stay focused on their studies, teachers can stay focused on their students, and schools can continue to stay safe.
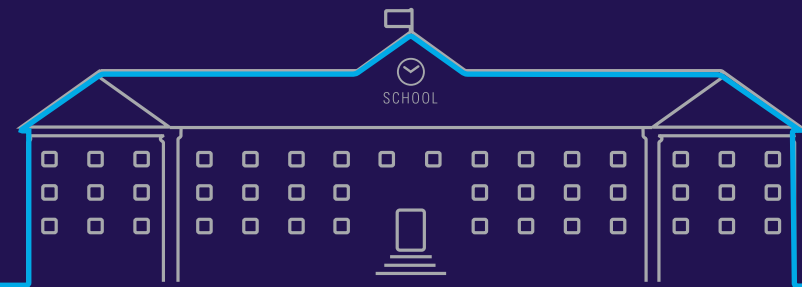
For more information about MOTOTRBO Nitro, contact your Motorola Solutions representative or visit **motorolasolutions.com/Nitro**

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