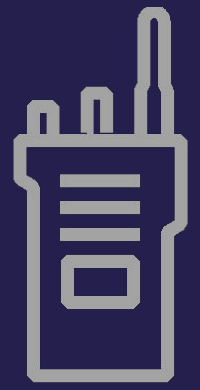
MAKE THE
MOMENT
Nitro™
BOOST YOUR NETWORK

Nitro™

The first fully-managed platform that combines business-critical voice with private broadband data over CBRS.

Enterprise-grade private broadband

Primed for the future



Extending voice

Simple infrastructure

Full management and control

WE ARE AT A TURNING POINT

OUR CUSTOMER'S DATA DEMANDS HAVE OUTGROWN "BUSINESS WI-FI"

MAKE THE MOMENT
CHANGE THE GAME

THE DATA HAS SPOKEN

More data usage than ever before

Proliferation of IoT devices and sensors

Endless potential for ways to use data

WI-FI IS YESTERDAY'S NETWORK

Customer's data usage has outgrown Wi-Fi's capabilities

Wi-Fi was the best we had, for a time

Customers need to support more data, devices and speed, with better security

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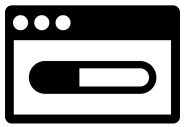
MAKE THE MOMENT
CHANGE THE GAME

SO WHAT'S NEXT?

WHY CBRS IS THE NEXT BEST THING FOR ENTERPRISE DATA

2-4X
RANGE OF WIFI

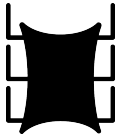
MORE THAN 2X
DATA CAPACITY
OF WIFI



BETTER
STREAMING DATA
CAPABILITY

SECURE PRIVATE
DATA UNLIKE PUBLIC
CELLULAR

RELIABLE SESSION
HANDLING



SEAMLESS
HANDOVER ACROSS
ACCESS POINTS

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WHAT IS CBRS?

CITIZENS BROADBAND RADIO SERVICE

MAKE THE MOMENT
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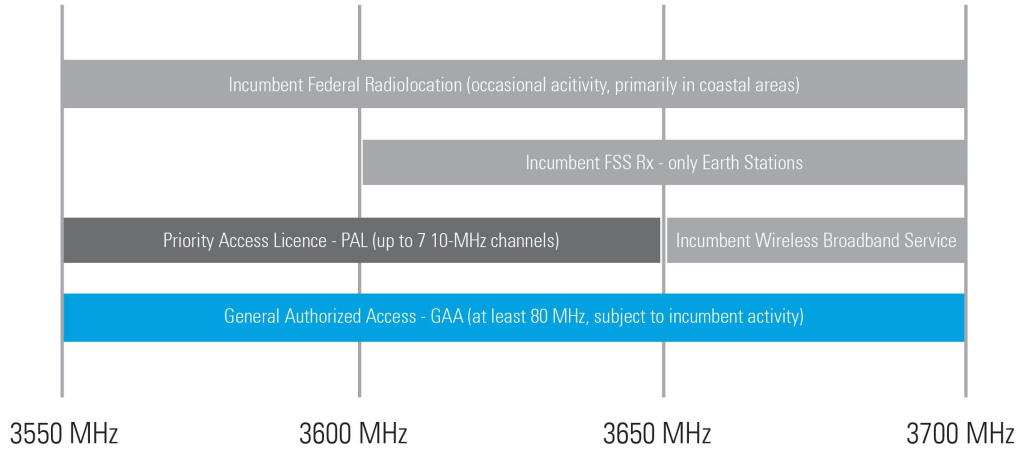
FCC has opened 150 MHz spectrum for broadband use.
Up to 70 MHz of PAL spectrum / 150 MHz of GAA spectrum

3 Tiers of Spectrum Users:

1: Military Incumbents (highest priority access)
2: Priority Access Licensed (PAL): (auctioned)
3: General Authorized Access (GAA): (unlicensed, but coordinated)



GAA will always have 80 MHz of spectrum available!

Learn more about CBRS at www.motorolasolutions.com/CBRS

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WIDESPREAD INDUSTRY SUPPORT

CBRS Alliance (110+ company members, including Motorola Solutions)

Wireless Innovation Forum (60+ company members, including Motorola Solutions)

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PRIVATE LTE TECHNOLOGY…
IN A COORDINATED BAND

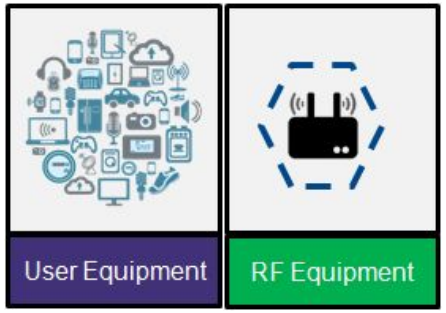
MAKE THE MOMENT
CHANGE THE GAME

LTE-LIKE PERFORMANCE

- Greater capacity and range
- Mobility
- Quality of Service
- Hyper dense
- Self optimized deployments

>

OnGo



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Wi Fi

WiFi-LIKE SIMPLICITY

- Unlicensed spectrum
- Simple network architecture
- Neutral host capable

HASSLE-FREE COMMUNICATIONS

Cloud-based core (aaS)
Simplified provisioning
Centralized, web-based configuration

Security and access control
Transparent device updates
Interoperation with LMR (WAVE)

MORE THAN 70 FCC-AUTHORIZED DEVICES

AND GROWING

Consumer smartphones

Apple
iPhone 11

Google Pixel 3
Google Pixel 4

Samsung
Galaxy S10

LG V50
ThinQ

Specialized end-user devices

Motorola Solutions
SLN 1000

Zebra XSLATE L10
Tablet

Telit LM960
Data Card

Bridges and routers

Cradlepoint
AER2200

Sierra Wireless
RV55

Multitech
Multiconnect eCell

Zyxel 4G LTE-A
Outdoor Router

WHAT IS AT STAKE?

MAKE THE MOMENT
CHANGE THE GAME

Tomorrow's business, today

- CBRS equipment market, excluding smartphones, will grow to over $850M by 2024 — Mobile Experts
  - CBRS RAN market expected to realize $1 billion in investments through 2025 — Dell'Oro Group
- Any enterprise using Wi-Fi is a potential customer
  - Competition is actively approaching your customers

Today's business, tomorrow

- CBRS accounts that your competition wins today, may jeopardize your future radio business

RECENT HEADLINES

"CBRS Emerging as Viable Wireless Option for Enterprises"

"Connectivity Wireless Deploys CBRS Trial in Times Square"

"CBRS at the Bat: Angel Stadium Gets a Pilot CBRS"

"UPS Receives Experimental License to Test 900MHz CBRS"

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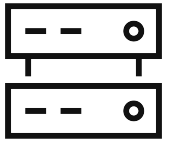
MAKE THE MOMENT
CHANGE THE GAME

WHY NITRO?

ADVANTAGES OVER OTHER CBRS OPTIONS

NETWORK DELIVERED AS SERVICE

ZERO DOWNTIME FOR UPGRADES



ON-PREMISE LOCAL DATA

INTEROPERABILITY WITH MOTOTRBO LMR SYSTEMS

DATA SECURITY ON-PREMISE AND IN THE CLOUD

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BOOST YOUR NETWORK

WITH NITRO FOR VOICE AND DATA

MAKE THE MOMENT
CHANGE THE GAME

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CONNECTED SECURITY CAMERA
SECURITY TEAM CONNECTED
RELIABLE DATA CONNECTION
TECHNICIAN STREAMING VIDEO
CONNECTED SECURITY CAMERA
IMPROVED GUEST Wi-Fi
COMPACT PORTABLE RADIO
CONNECTED HVAC SENSOR
PTT ON SMARTPHONE
PROFESSIONAL CBRS RADIO

USE CASES

MAKE THE MOMENT
CHANGE THE GAME

MANUFACTURING

IoT sensors and monitoring

Robotic integrations

Connected machine interfaces

Secure data connection

Reliable voice and video comms

Surveillance and security cameras for secure areas

LARGE HOTELS

Secure indoor and outdoor staff data connection

Improved guest Wi-Fi

Streaming video for repairs and maintenance

IoT sensors and monitoring

Surveillance and security cameras

Reliable voice and video comms

STADIUMS & PARKS

Surveillance and security cameras

Control gameday presentation lights and sounds

Secure data connection indoors and on the field or sideline

Improved guest Wi-FI

Reliable voice and video comms

Ultimate control of digital signage

MINING

Automated machinery

Human machine interfaces

Voice and video comms above and below ground

IoT sensors and monitoring

Surveillance and security cameras

Secure indoor and outdoor staff data connection

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USE CASES

MAKE THE MOMENT
CHANGE THE GAME

LARGE HOSPITALS

Secure electronic medical records storage

Streaming video for repairs and maintenance

Secure critical health monitoring

Surveillance and security cameras

IoT sensors and monitoring

Reliable voice and video comms

AIRPORTS

Secure indoor and outdoor staff data connection

Surveillance security cameras

Digital signage

Improved guest Wi-Fi

IoT sensors and monitoring

SEAPORTS

IoT sensors and monitoring

Human machine interfaces

Automated machinery

Asset tracking

Secure indoor and outdoor staff data connection

Surveillance and security cameras

Reliable voice and video comms

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USE CASES

MAKE THE MOMENT
CHANGE THE GAME

WAREHOUSE / DISTRIBUTION CENTER

IoT sensors and monitoring

Automated machinery

Robotic integrations

Connected machine interfaces

Reliable voice and video comms

Surveillance and security cameras for secure areas

Temperature/humidity control

UTILITIES

IoT sensors and monitoring

Secure indoor and outdoor staff data connection

Surveillance security cameras

Automated machinery

Connected machine interfaces

COLLEGES

Campus-wide indoor/outdoor staff data connection

Improved student Wi-Fi

Streaming video for repairs & maintenance

Reliable voice and video comms

Digital signage

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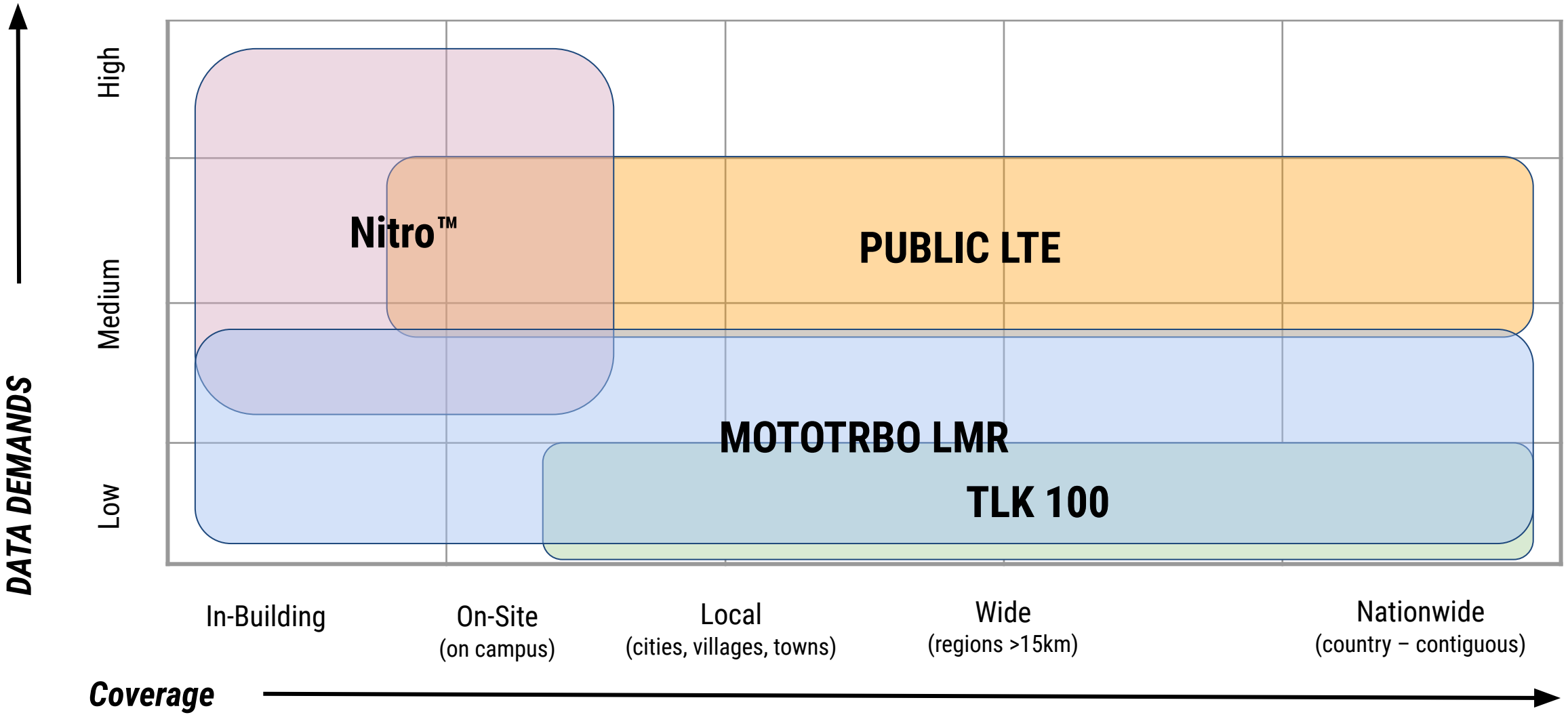
Where Does Nitro Fit?



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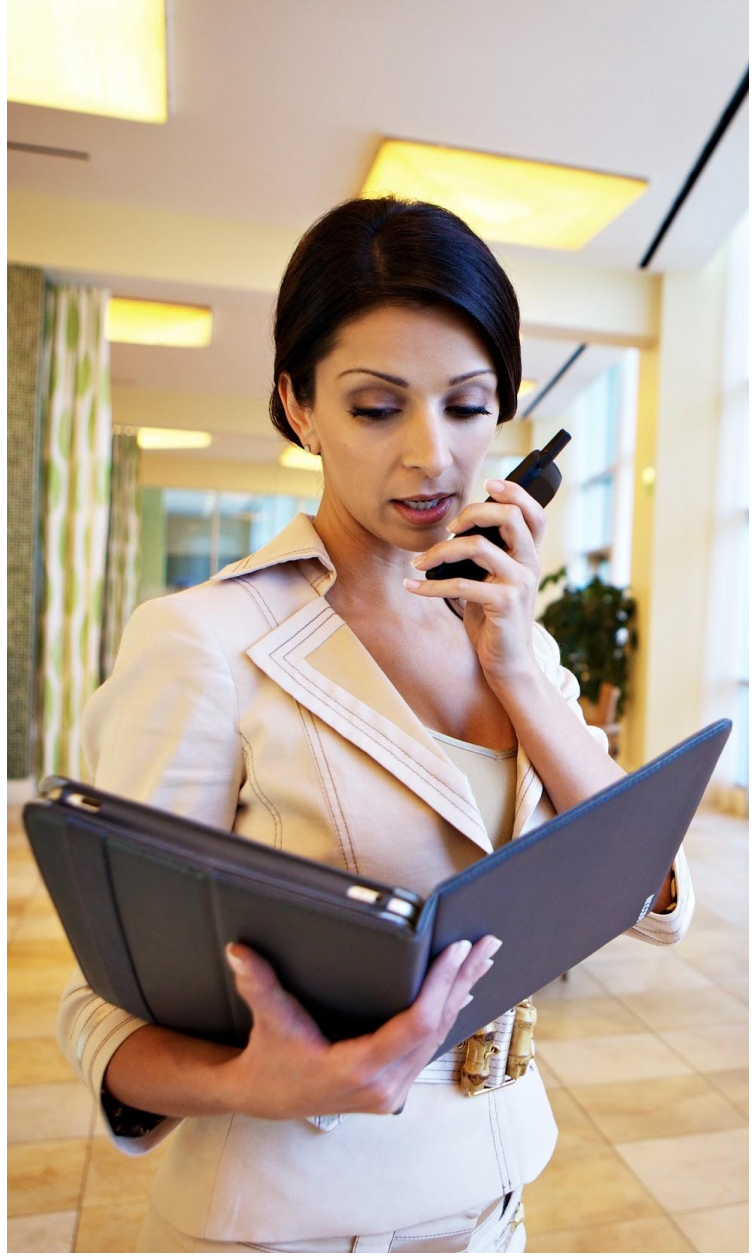
ENTERPRISE-GRADE PRIVATE BROADBAND

DON'T BRING CONSUMER BROADBAND TO A COMMERCIAL SITE

LIGHTNING FAST BROADBAND DATA SPEEDS

Seamless roaming

- Move freely through your work environment, avoiding frustrations that are common when using WiFi for PTT
- Up to 4x range of traditional WiFi networks*
- 2x data capacity of traditional WiFi networks*
- Reliable outdoor coverage



*Based on 802.11a standard for 5.0 GHz WiFi using similar channel bandwidths.

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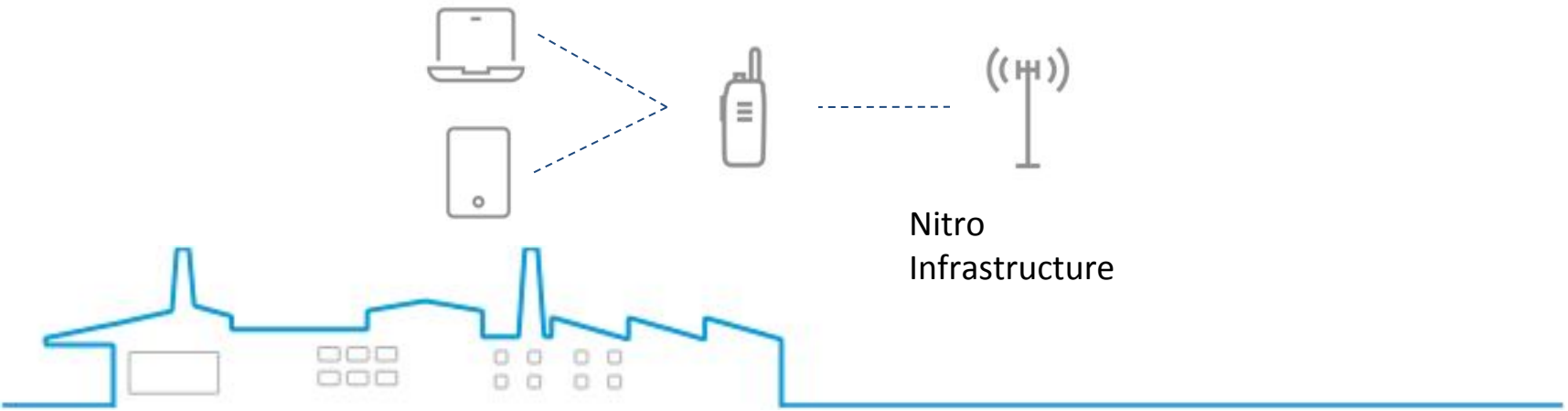
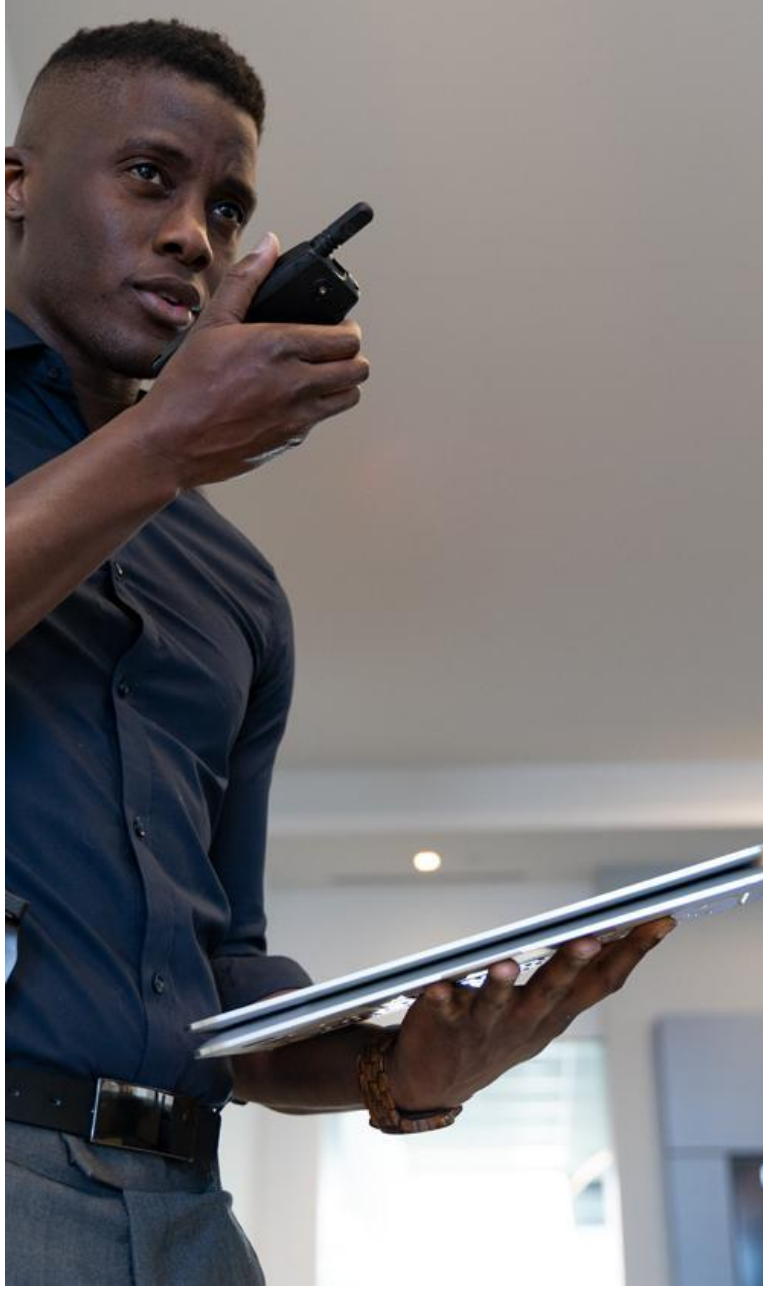
WiFi HOTSPOT CAPABILITY ON DEVICE

TURN EACH DEVICE INTO PERSONAL WIFI SPOT

- Each SLN 1000 provides 2.4GHz WiFi for up to two clients with CBRS backhaul
- On-demand WiFi wherever your staff needs — no dead zones
- Continuous connectivity as you move around your facility, without dropped calls





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EXTENDING VOICE

INSTANT VOICE COMMUNICATIONS WILL ALWAYS BE BUSINESS CRITICAL

Wideband Push-to-talk

- Voice conversations will sound clear and natural
- SLN 1000 — the first purpose-built radio for the CBRS network

Seamless roaming

- Move freely through your work environment, avoiding frustrations common when WiFi is used for PTT

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SEAMLESS VOICE INTEROPERABILITY

Interoperate with current MOTOTRBO systems

- Seamlessly connect with existing MOTOTRBO radios on your current radio network

Use PTT with existing smart devices and PC's

- Add smartphones, tablets, and PC's to your PTT network with WAVE software
- Expand your PTT network to existing devices with no capex or device cost

*Interoperation is exclusively available through a Nitro network

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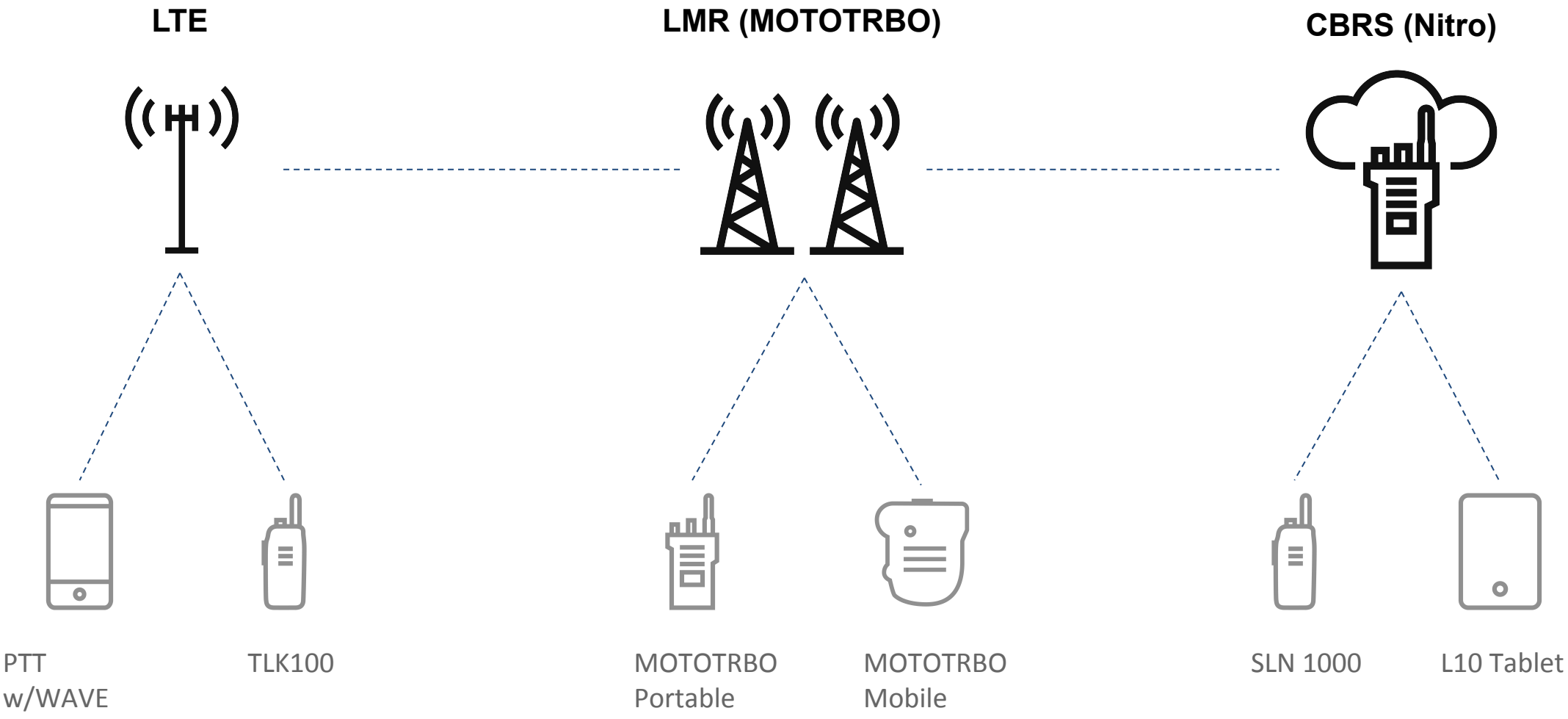
INTEROPERABILITY ACROSS NETWORKS

MAKE THE MOMENT
CHANGE THE GAME



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MAKE THE MOMENT
CHANGE THE GAME

SLN 1000
PORTABLE TWO-WAY RADIO

- First ever purpose-built CBRS radio (OnGo 3.5 GHz network compatible)
  - High fidelity wideband audio
  - WiFi client (2.4 GHz and 5 GHz) / Bluetooth 4.0 LE
- Interoperates with existing MOTOTRBO networks*
- WiFi hotspot (2.4 GHz) for up to two clients with CBRS backhaul
- Up to 15 hours of battery life

*Interoperation is exclusively available through a Nitro network

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MAKE THE MOMENT
CHANGE THE GAME

ZEBRA L10
RUGGED CBRS WINDOWS TABLET

- Waterproof, dustproof, Class 1 Div 2 for hazardous locations
- Large 10.1” display
- Front and rear cameras for video chat
- Barcode reader optional, built in on pad
- Full shift battery or upgradeable to 24 hrs, hot swappable battery
- Connectivity: Wi-Fi, Bluetooth, Ethernet

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SIMPLE INFRASTRUCTURE

SLX 2000

SLX 4000

SLX SERIES
CITIZENS BROADBAND RADIO SERVICE DEVICES (CBSDs)

- OnGo 3.5 GHz network compatible
- Simple management through the Nitro Cloud Portal
- 4G LTE data speeds
- Indoor and outdoor coverage
- Simple deployment and installation
- Web-based management and control

Manage your CBSDs from **www.motorolasolutions.com/ActivateNitro**

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ADVANTAGES OF A HOSTED CORE

Scalable and Affordable

- Minimal startup cost and infrastructure investment
- Pay-as-you-grow model
- Full control over the scope of optional subscriptions

Secure and Reliable

- All components are firewall protected
- Software kept up-to-date
- Malicious code and vulnerability scans performed regularly

Maintenance-Free

- Fully-managed cloud core with 24/7 network and security monitoring
- Cloud-based operations and fault/performance management

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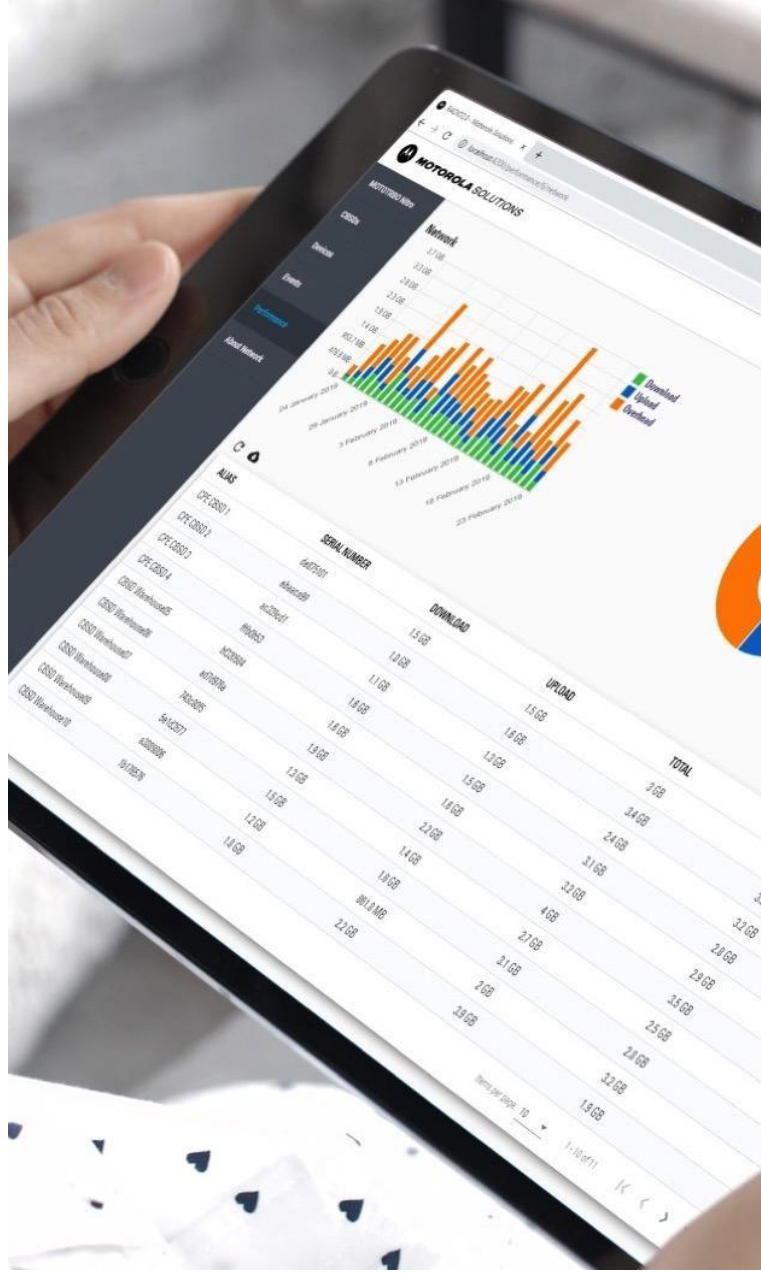
DEPLOYING A ROBUST VOICE AND DATA NETWORK DOESN'T HAVE TO BE COMPLEX

Deploy in minutes

- Simply mount your CBSD
- Add power and Ethernet
- Configure it through the Nitro Cloud Portal
- Cloud-based core
- Infrastructure and Software as a service (SaaS)
- Pay a predictable monthly fee instead of outlaying a huge upfront capital expense



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FOCUS LESS ON MANAGING YOUR NETWORK AND MORE ON LEVERAGING ITS PERFORMANCE

Nitro Cloud Portal

- Provision all infrastructure components (CBSDs, Network Hardware)
- Register SIMs and Radios as well as set up their users and talkgroups
- Fault manage and track network health status
- Analyze data usage across the network

Manage your network from **www.motorolasolutions.com/ActivateNitro**

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SECURE THROUGHOUT

PROTECTING YOUR COMMUNICATIONS AT EVERY STEP

MAKE THE MOMENT
CHANGE THE GAME

SECURED IN THE CLOUD

- Professionally managed at our hardened, secured data center
- All data is encrypted, in transit and at rest; IPSEC to access points
- Software is regularly scanned, patched and kept up-to-date

SECURED ON PREMISES

- 3GPP encrypted air interface requires SIM card to access the network
- On-prem equipment can only be configured remotely, with credentials (no direct access)
- Local traffic stays local; on-prem equipment is hardened and protected by a firewall

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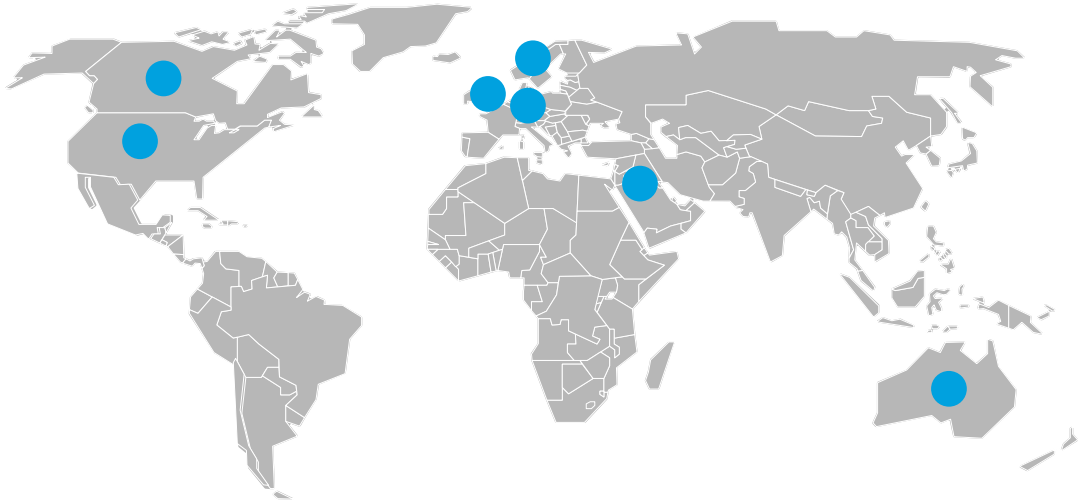
A LEADER IN PRIVATE BROADBAND and MANAGED SYSTEMS

PIONEER WITH MAJOR LTE DEPLOYMENTS AROUND THE WORLD

2008	First 700 MHz LTE data demonstration
2012	Large-scale private LTE system deployed in Houston
2012	Launch the first handheld private-LTE device
2014	Awarded contract for then world's largest private LTE network
2017	First 3GPP LTE broadcast-enabled PTT call



ACTIVE PRIVATE BROADBAND NETWORKS AROUND THE WORLD

NORTH AMERICA
USA
Canada

EUROPE
United Kingdom
Norway
Netherlands

ASIA-PACIFIC
Australia

MIDDLE EAST
Multiple countries

Years of experience hosting nationwide, carrier-class communications solutions

Trusted by dozens of customers to manage their Mission Critical Communications Systems

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PRIMED FOR THE FUTURE

Ready to Scale with Your Customer's Operations

- Accountability for performance of your network
- Build stronger security with Avigilon cameras, Ally software
- Ready to grow as your needs evolve

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Nitro™

THANK YOU