

Demystifying

Band

14

Spectrum

Why It Exists and What It Means For Public Safety

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It's time to debunk the myths once and for all. Band 14, the spectrum set aside for public safety, gets a lot of attention. It's been the subject of many technical debates over the years. Some say Band 14 is unique. Others say it's "just another band."

And I'm here to give you the facts about Band 14 – why it exists, who it's for and what it means for public safety.

What is Band 14?

Band 14 is the spectrum licensed by Congress to the First Responder Network Authority (FirstNet Authority) for the specific purpose of creating a nationwide public safety wireless broadband network. Congress set this spectrum aside just for creation of America's public safety network. It created the FirstNet Authority to oversee its construction and maintenance. And AT&T won the contract to build and maintain the network. The FirstNet Authority granted AT&T exclusive rights to this spectrum to provide first responders the coverage and capacity they need across the country.

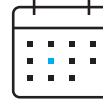
We look at Band 14 as public safety's VIP lane. During an emergency, we can clear this band – or lane – and lock it just for first responders and the extended public safety community.

This is important because first responders and those who support them need to stay connected when it matters most. And they need to communicate with other agencies and jurisdictions.



A VIP Lane

Dedicated connectivity
when you need it



24/7 Priority Access

First responders are
always connected



Built to 3GPP Standards

Powerful complement
to HPUE



Highly Secure Network

With available end-to-end
encryption



When we lock down Band 14, only those on FirstNet can access the Band 14 spectrum. This provides them reliable connectivity for emergency response. And they don't have to compete with commercial traffic – ***ever.***

That's ***unique in the industry*** and something public safety will only get on the FirstNet network.

Deploying Band 14 nationwide

We've deployed Band 14 spectrum nationwide. In fact, in keeping with our commitment, we've completed over 99% of the Band 14 buildout. Reaching rural and remote parts of America with the Band 14 rollout has been – and continues to be – one of our top priorities. In areas where coverage already exists, we're using

Band 14 to help first responders get truly dedicated connectivity when they need it to get the job done.

We're working with the FirstNet Authority and getting direct feedback from state and public safety officials to ensure that we're putting coverage and capacity where first responders need it most.

This feedback has been key in deploying the Band 14 spectrum nationwide. It's also helped us launch over 1,000 new sites in rural, remote and tribal areas so far – including areas where emergency response has been a challenge.

We've designed FirstNet for every first responder in the country – career or volunteer; federal, state, local or tribal; and urban, suburban or rural – and those who support them. And we want them to have the tools they need to get the job done.

Enhanced capabilities with Band 14

Plus, Band 14 allows for capabilities other spectrum bands don't. Band 14 is the only band in the U.S. enabled by the 3rd Generation Partnership Project (3GPP) standards for use of High-Powered User Equipment (HPUE) at the highest allowable power levels (Power Class 1).

That's why we launched FirstNet MegaRange™, an HPUE solution, which can significantly boost cellular transmission strength. This allows first responders to operate further away from wireless towers and further away from other users.

HPUE can significantly increase the coverage area for rural and remote responders. And for urban and suburban responders, HPUE helps solve the common challenge of indoor coverage. The stronger signal helps responders trying to connect from hard-to-reach places like basements, elevators, stairwells and parking garages. It helps them communicate inside and out.

And because only Band 14 is enabled for this high-powered user equipment, FirstNet is the only network where public safety can take advantage of the highest power class signaling available.

Deployable assets with Band 14 connectivity

We've equipped the over 150 deployable assets in the FirstNet fleet with Band 14 capability. This helps ensure first responders on FirstNet have



the coverage and capacity they need – when and where they need it most. And it helps them support emergencies across the country – from rural to urban areas.

The dedicated FirstNet deployable assets are portable cell sites that link to FirstNet via satellite. They don't rely on commercial power availability. And they provide first responders with connectivity, much like a cell tower.

Public safety agencies on FirstNet can request any of these assets for planned events or in emergencies. So they can connect to other agencies and access the tools they need for situational awareness.



Coverage and capacity

Finally, FirstNet is an all-band solution. This means it's built on AT&T commercial bands – in addition to Band 14 – to bring public safety the coverage and capacity they need for their life-saving missions. With Band 14 and AT&T commercial bands, FirstNet wireless coverage reaches over 99% of Americans. In fact, FirstNet covers more first responders than any other network in America.

As we continue to roll out Band 14, first responders on FirstNet will have access to increased coverage and capacity. So they can keep themselves and their communities safe.

Stephen Devine is a Market Strategist with the FirstNet Program at AT&T. He supports FirstNet initiatives and market development strategy at the federal, state and local levels. Devine joined AT&T in May 2017 after a lifelong career in public safety communications. He was involved in public safety Land Mobile Radio (LMR) technologies, operations, spectrum use and regulatory issues. Prior to joining AT&T, Devine supported public safety communications in dispatch operations, spectrum management, and Project 25 technologies in the State of Missouri and APCO International.



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