

AT&T First to Deliver Both High and Low-band 5G Connectivity to GE Research Campus

New Access to Both Sub-6 and mmWave 5G Opens Door for Next Generation of Cutting-Edge Healthcare; Also Expands 5G and FirstNet in the Broader Niskayuna Community

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What's the news? AT&T* and GE Research are fueling the future of healthcare, aviation and green energy. GE Research, the research and development division of General Electric (GE), has added AT&T 5G to its cross-industry 5G testbed at its research facility in Niskayuna, New York.

The purpose of GE's testbed is to create real-world solutions, so the research facility's environment must reflect the marketplace — today and beyond. AT&T currently provides 2 flavors of 5G - AT&T 5G, using low-band or sub-6 spectrum, which offers the *Nation's Best 5G Network*¹ to our customers nationwide and AT&T 5G+, which delivers super-fast speeds and unprecedented performances via mmWave spectrum.

The addition of AT&T's 5G network provides GE Research with the most advanced networking capabilities available and for the first time, enables them to use both high and low-band 5G to uncover new opportunities to advance clean energy, air transportation and precision health.

Why is this important? High-speed, lower-latency 5G connections have the potential to alter the very DNA of critical industries in exciting ways. GE Research and AT&T are actively exploring ways to use 5G connectivity to improve patient care and outcomes. As healthcare becomes more personal, precise and portable over the next decade, we need faster, secure and reliable networks to realize this potential.

Having access to both forms of AT&T's 5G connectivity can enhance the ability of GE Research to shape the future of patient care and improving patient outcomes. This can help GE Research develop and optimize data flow across both spectrum bands throughout the care cycle and regardless of location. This means enhancing the level of care whether a patient is receiving care at home, in an ambulance or at a healthcare facility.

"The power of reliable, robust sub-6 and 5G+ networks will transform healthcare by bringing care more directly to the patient," said **Eric Tucker, senior director of technical products, GE**. "We're already seeing how doctors have become more connected to their



patients through the power of telemedicine or teleconsulting. Just imagine what will be possible when millions of medical devices and diagnostics tools can be reliably connected to help doctors deliver faster, more effective patient care."

Tucker added, "Today, when you don't feel well, you call the doctor and schedule an appointment so that the doctor can examine you and figure out what's wrong. Depending on schedules, it may take several hours or even days before you get into the doctor's office. But with the development of wearable sensors and other medical monitoring devices that GE and others are innovating, a future scenario could well be that the doctor calls the patient to tell them something is wrong first. This is possible in a very limited way today. The power of 5G networks could make it pervasive."

Here are some of the ways 5G could help enhance the patient experience in the coming years:

- Accelerating the development of wearable sensors and medical devices: Instead of a prolonged hospital stay, a patient could recover at home, but without any loss in the doctor's ability to monitor and respond to changes in their recovery.
- **Transforming asset management and monitoring:** In the modern hospital setting, it can often be difficult to rapidly locate necessary medical equipment. As 5G matures and more precise location monitoring is available, we envision a world in which medical assets are always where you need them.
- Elevating precision health with precision data: 5G will be critical to enabling improved data collection and analysis. It will also allow for more effective expert networks, enabling teleconsultation and AI-augmented decision making.

What are people saying? "Bringing AT&T's full spectrum of 5G connectivity to GE's Global Research facility is opening the doors for improved patient care, experience and outcomes. Next generation networks will play an important role in enabling personal, proactive and portable healthcare experiences," said Rasesh Patel, executive vice president and chief product and platform officer, AT&T.

"A critical focus for the GE 5G testbed is democratizing technology and building solutions that work in the real-world setting," said **SM Hasan, 5G Mission Leader, GE Research**. "Having both flavors of 5G enables us to build solutions that span both high speeds, in building networks and the over-the-air 5G network available to AT&T customers."

What else should I know? The deployment on the GE Research campus also expands the AT&T 5G footprint in the broader community, giving high-speed wireless access to more Niskayuna residents and visitors. In addition, these enhancements will bring Band 14 spectrum to the area – a nationwide, high-quality spectrum set aside by the federal government specifically for FirstNet[®], Built with AT&T. FirstNet is designed to solve for



long-standing communications challenges faced by the public safety community by allowing first responders to communicate with one another during everyday situations, big events or emergencies.

FirstNet is the only nationwide, high-speed broadband communications platform dedicated to and purpose-built for America's first responders and the extended public safety community. Shaped by the vision of Congress and the first responder community following the 9/11 terrorist attacks, FirstNet stands above commercial offerings. It is built with AT&T in public-private partnership with the First Responder Network Authority (FirstNet Authority) – an independent agency within the federal government. The FirstNet network provides first responders truly dedicated coverage and capacity when they need it, including unique benefits like always-on priority and preemption and high-quality Band 14 spectrum. These advanced capabilities enable FirstNet to help fire, EMS, EMA, law enforcement and 9-1-1 personnel save lives and protect their communities.

To learn more about GE Research, visit www.ge.com/research/. To learn more about how AT&T can help businesses get the most out of 5G connectivity, visit www.business.att.com/learn/5G/.

¹AT&T awarded Best Network by GWS OneScore 2021. GWS conducts paid drive tests for AT&T and uses the data in its OneScore analysis. AT&T 5G requires compatible plan and device. 5G not available everywhere. Go to att.com/5Gforyou for details.

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