



Indiana 5G Zone: Smart Infrastructure

5 G ZONE

INDIANA | POWERED BY NINETWELVE



IN5GZ Secure 5G

As one of the NineTwelve initiatives, the Indiana 5G Zone (IN5GZ) is the nation's first private 5G network lab to power Smart Cities, Smart Logistics, and Advanced manufacturing. As the new standard for wireless connectivity, 5G is faster, more reliable, and sustains more devices. However, 5G's increased reliance on the Internet of Things (IoT), digital devices that communicate with one another using the internet, increase cybersecurity risks as data bounces between digital devices without protection past the parameters of the network. The greatest threat to IoT security is the lack of encryption on individual data transmitted between devices. As a result, outside entities can infiltrate networks, intercept credentials and decrypt data transmitted between devices. For instance, hacking a Smart City can result in power outages, privacy leaks, and threats to national security that can endanger the lives of millions of people.

Why does 5G's increased reliance on IoT devices present cybersecurity risks?

- Lack of encryption on individual data transmitted between IoT devices
- IoT devices lack built-in security measures resulting in easy targets for malware
- Exposed communication ports that share data with other devices
- Weak authentication and authorization systems

XQ's Zero Trust data protection platform has empowered IN5GZ to be the first lab to offer Quantum-safe Encryption as a Service (QEaaS) to protect and track IoT data as it moves through 5G infrastructure. By encrypting and tracking individual data transmitted between IoT devices, XQ makes it impossible for unauthorized users to access secure information. Because of cybersecurity risks surrounding 5G's increased reliance on IoT, XQ's groundbreaking protection solution for IoT devices eliminates the need to write



code as agents in 5G gateways and Mobile Edge Computing (MEC) nodes guarantee data-integrity from the edge processing things such as AI and machine learning. Without XQ's Quantum-safe Encryption technology, 5G's increased reliance on IoT would have made any services offered by IN5GZ vulnerable to cybersecurity threats.

XQ's encryption technology has been integrated into the following 5G service categories:

- Smart Manufacturing Lab
- Resilient Energy
- Smart Resource Extraction
- Smart Logistics
- Trusted Electronics Lab
- Secure Contract Transmission
- Secure intake of Personal Identifiable Information (PII)

XQ's collaboration with IN5GZ to advance Smart-City protection

While working with IN5GZ, XQ has developed an IoT video and thermal imaging technology captured in a secure cloud management system providing privacy and security to municipalities and their residents. In the United States alone, traffic congestion costs \$87 billion annually, while safety measures cost \$50-80 billion. XQ's SMART intersection technology uses computer vision and machine learning to explore Smart Traffic solutions deployed with minimal disruption to traffic infrastructure. For instance, in the event of an accident, authorities, and drivers on the road would be automatically notified to ensure public safety and prevent traffic congestion. From autonomous vehicles to safety alerts, XQ's work with IN5GZ is advancing the growth and success of Smart Cities.



Because of our collaboration, the IN5GZ lab is the first lab to empower government, business, and academia to create and commercialize testbed offerings with immediate practical applications. By integrating XQ's Zero Trust data protection platform, IN5GZ's lab offers various services and solutions such as 5G Testbed, assisting on 5G projects from inception to completion, and R&D opportunities. XQ's Zero Trust Architecture has made 5G and IoT accessible in a safe, reliable, and integrable manner.

If you want to learn more about our work with IN5GZ, check out the links below:

IN5GZ and XQ: <https://xqmsg.co/xq-blog/xq-and-indiana-5g-zone>

5G Secure Video Demo:

https://www.youtube.com/watch?v=xDJm-2-LbAw&feature=emb_logo

Contact Us:

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<https://xqmsg.co/contact-us>