

PRIVATE 5G AND EDGE COMPUTING: ADOPTION TRENDS IN THE ENTERPRISE

Enterprises understand the value of and are prioritizing the adoption of private 5G networks and edge computing solutions across a variety of different industries. The ability to have secure, reliable, and performant connectivity across broad areas that can support a rapidly increasing number of devices is appealing to enterprises.

Enterprises Are Prioritizing Private 5G Networks

According to research from TechTarget's Enterprise Strategy Group, more than eight out of ten (82%) enterprises believe deploying a private 5G network is a top five priority, with almost half (44%) stating it is the top priority. These enterprises are eager to adopt solutions as well, with over three quarters (78%) stating that they would like to deploy a private 5G cellular network within the next 12 months.



44% of enterprises believe deploying a private 5G network **is the TOP priority**



78%

of enterprises said they would like to deploy a private 5G cellular network within the next 12 months.

Why are organizations turning to private 5G networks over Wi-Fi? According to the research, all respondents cited the

ability to improve scalability, provide more secure connectivity, have dedicated spectrum with committed service levels and availability, and support higher device density and lower latency connections.

TOP 5 DRIVERS FOR PRIVATE 5G OVER WI-FI (ALL RESPONDENTS)



59% Improved scalability



58% Advantages in security



47% Committed quality of service (QoS) and/or availability



47% Need to support high volume/density device/IoT environment



43% Need for lower latency connectivity



Enterprises anticipate that an average of approximately

2,000 DEVICES will need access to their private 5G network.

With 5G standards capable of supporting up to 1 million devices per square kilometer, there is sufficient room for enterprises to deploy additional devices.

Private 5G Use Cases and Benefits

There are several general and industrial use cases cited by the respondents that vary based on their organization's vertical. Top general use cases include securely segmenting network traffic; leveraging analytics for real-time insights; safety; and physical tracking and fencing of devices, employees, or equipment. Industrial use cases include flexible modular manufacturing, computer vision for quality control, advanced predictive maintenance, and automation or autonomous robots or vehicles. Regardless of an enterprise's industry, expected benefits will bring enhanced experiences, increased safety and security, and operational efficiencies.

» TOP 5 GENERAL PRIVATE 5G USE CASES











39% Securely segment network traffic 38%

Secure connectivity and access with private network **37%** Analytics to drive real-time insights for decision making 36%

Reliable cellular coverage across campus environment 35% Safety

» INDUSTRY-SPECIFIC USE CASES (GENERAL)



Healthcare:

- Securely segment network traffic
- Reliable cellular coverage across campus
- Physical location tracking and fencing of devices, employees, and equipment
- Automatic timestamping of goods shipped/received



Retail:

- Securely segment network traffic
- Secure connectivity and access with private network
- Automatic time stamping of goods shipped/received
- Point of sale

» TOP 5 INDUSTRIAL PRIVATE 5G USE CASES



57% Flexible and modular production equipment



54% Computer vision for quality control



52% Advanced predictive maintenance



50% Industrial automation/ autonomous vehicles/robots



43% Fleet tracking

» INDUSTRY-SPECIFIC USE CASES (INDUSTRIAL)

| Î | | |
|---|--|--|

Manufacturing:

- Flexible and modular production equipment
- Computer vision for quality control
- Industrial automation/autonomous vehicles/robots
- Fleet tracking



Energy/natural resources:

- Flexible and modular production equipment
- Advanced predictive maintenance
- Computer vision for quality control
- Drones for site inspection



Private 5G Aligned to Edge Computing

The majority of organizations believe Private 5G networks will be needed for edge locations. To satisfy operational and business needs, enterprises believe they will need to support roughly eight applications or workloads per location. These applications will be essential to analyzing the data collected and providing real-time insights.



Private 5G networks and edge computing initiatives are being prioritized by enterprises to address specific uses cases that require greater scale, coverage areas, security, and device density. While these use cases may vary by industry, enterprises believe they will drive better experiences, increased safety, improved security, and operational efficiencies.

LEARN MORE



