Private Wireless Networks

Betacom

What is a Private Wireless Network?

A private wireless network is a new solution available for Enterprises to solve several long-standing connectivity needs. The definition of a private wireless network is all in the name. Private means that this is the Enterprise's own secure network, just for their use. It does not rely on or share data with any public network. Wireless means the network is based on high performance 4G/5G cellular technology – available now in the U.S. on spectrum set aside just for this purpose. A private 4G/5G network allows Enterprises to have easy, cost-effective access to high-speed broadband to meet Internet of Things (IoT) and staff communication needs.

Why Should I Consider a Private Network?

Enterprises are looking for ways to add operational efficiency and grow their businesses through digital transformation initiatives. A key requirement for success is deploying secure data networks that can be trusted with business-critical tasks, especially for Industrial IoT applications. Wi-Fi networks are often congested and prone to interference, lacking the reliability, security and performance required for new IoT applications. And there is a growing interest from Enterprises to own their own networks and maintain local and secure control of their data.

The Benefits

Security	First and foremost, security is built into every layer of the network, from private SIM cards to E2E encryption.
High Performance	This is a dedicated high-speed broadband network that will not be subject to interference, for maximum coverage across the Enterprise.
Flexibility	Network slicing can be used to provide discrete networks to fulfill specific needs within the organization or with stakeholders.
Control	Businesses maintain secure local control of the network, policies and data, with full visibility into network performance.

Who Should Consider Private Wireless Networks?

Several Enterprise market segments are evaluating private networks to meet their business objectives. Although wireless industry analysts have differing views on the relative impact in each segment, the industries highlighted in Figure 1 are among the top in all private wireless reports. The common theme across organizations is that they need a new solution to automate mission-critical operations. When businesses need to rely on wireless to download telemetry data from airplanes, to send high-definition medical imaging, or to run point-of-sale applications in an arena that holds 100,000 people, they require the performance and reliability that only private cellular networks can provide.

Interest in private 5G networks is high across industry segments, as detailed in a 2021 Voice of the Enterprise survey from 451 Research.

" Within two years, 74% of respondents expect to be using 5G wireless to handle at least a portion of their organization's IoT connectivity. Interest in 5G for IoT is very high. "

451 Analyst Rich Karpinski

What Are Some of the Top Applications?

Private wireless networks are being deployed to enable multiple applications, and some are of course quite specific to each market segment. Here are some examples of common application categories that Enterprises are taking advantage of to increase efficiency and foster business growth:

Connect existing fixed equipment and sensors	Connect to conveyor belts, manned equipment, and sensors to gain flexibility in inventory management, environmental control, asset tracking, operations heat mapping, and predictive maintenance.
Enable real-time communication with robotics	Connect with automated guided vehicles for programmatic traffic control, safety scanning, route planning, predictive maintenance, and analytics.
Digitally connect employees and mobile devices	Connect scanners, ruggedized devices, and AR/VR glasses for frictionless process flow to provide instruction while keeping handsfree.
Provide respectful and effective security	Connect CCTVs & cameras, access management systems (including biometrics), push-to-talk, security alarms and fire alarms to gain efficiency in asset tracking, staff authentication, and internal communications.
Drive efficient building operations	Connect building management, HVAC, lighting, utilities, and elevator systems to achieve optimal usage of building resources while enabling predictive maintenance to achieve sustainability and cost savings goals.

Consider a Managed Service

A final consideration Enterprises should explore as they evaluate the need for a private wireless network is ease of deployment. Private networks can now be offered as a managed service. Without adding headcount or new expertise, Enterprises can quickly deploy a private network as a managed service. The Enterprise sets the policy and requirements, and the managed service provider designs, deploys and operates the network at a predictable fixed cost.

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