The Five "Must-Have" Features for Private Networks

Drivers of Private Cellular Networks

5G is about more than smartphones. It's about smart factories, smart cities, and even smart cars. These applications, and others like them, are driving the need for private cellular networks. Private cellular technologies such as LTE, 5G and CBRS help enterprises achieve the low-latency, high-performance connectivity they need for advanced automation processes required by smart applications, making cellular the connectivity mode of choice. These networks will provide the speed, performance, and security that enterprises need for next generation of 5G applications.

Traditional Wi-Fi networks can't meet the demands for the wireless applications of the future. As manufacturing companies look to Industry 4.0, for example, they'll need 5G technology to support applications such as high-resolution video capturing of defects during the manufacturing process. Without a private cellular network, manufacturers would need to rely on high-speed fiberoptic connections for each device or sensor, which is expensive and requires manual reconfiguring as devices are added or updated. Oil and gas companies can also benefit from private 5G networks as they look to process vast amounts of data for logging and analysis.

Most enterprises have little experience in deploying and managing a private cellular network. For this reason, they need a trusted partner that can deliver the right mix of security, performance, and be cost-effective while meeting specific service level agreements (SLAs). And this is where mobile service providers (MSPs) can help. By partnering with their MSP, enterprises can quickly stand up their own private 5G/CBRS network or consume private 5G network as a service, offered on cloud like Azure.

But how do you know which private cellular network partner is right for your business? When selecting a private mobile network service provider, you should weigh these five key features in your decision-making process:

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1. Deployment Flexibility
Cloud-Managed & Delivered

There are hundreds of different use cases for 5G applications, from self-driving cars that can make split-second corrections to augmented reality in-stadium experiences that make sports fans feel like they're in the game. Whether or not your private network provider can support a multitude of different use cases is a critical selection criterion. This flexibility includes the ability to start small and scale your private network as demand for 5G applications increases. Essentially, you want to be able to consume 5G/CBRS private network services just as you would any other cloud-based service.

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2. Low Cost of Entry
"Pay as You Go"

A cloud-based private network deployment model also plays an important role in the economics of 5G enterprise applications. Service providers that offer "pay as you go" pricing allow you to test new 5G services without committing months or millions of dollars to an experimental application. Using a secure multitenant architecture and a software-based infrastructure, private network service providers can offer you a secure, customized network experience at a much lower cost of entry and operation.

3. Security & Compliance
Data Managed Locally at the Edge

Your mission-critical applications require security, reliability, and low latency. To achieve these goals, you want your private network services as close as possible, at the network's edge. Having your private network at the edge gives you more control over your data, which is important for industries where privacy and compliance are important. For example, a hospital may want to have a local breakout capability to prevent personally identifiable information from being transmitted over the Internet, or a bank may wish to process transactions locally between their data center and a dedicated 5G edge server. A cloud-based edge model gives you the added benefit of leveraging the same security and compliance policies across your entire business.

4. Performance & Reliability
A Cloud-Native Approach

Not all 5G networks are architected the same. A network based on a cloud-native mobile solution offers you better performance, higher reliability, and wider coverage. A cloud-native solution scales more gracefully as your bandwidth requirements increase.

Cloud-native networks that support open standards also foster innovation in your business by giving you the business agility and allowing you to develop cloud-native applications and tools faster than your competition.

5. Enhanced Automation & Analytics
Greater Management & Control

Network automation and service orchestration allow you to easily manage, maintain, and modify your 5G applications. Automation reduces the deployment complexity of 5G services, enabling you to launch new wireless services in days instead of months. Together, automation and orchestration can reduce your cost of managing and deploying 5G services by as much as 90 percent. Private networks that feature analytics can deliver even more value to your business intelligence by giving you real-time insights into your devices, operations and network that can help you optimize your business processes.

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