

WiFi vs. Private Cellular Networks: Why Businesses Need Both



What is a Private Cellular Network?

Private cellular networks enable wireless communication between mobile devices, and are specifically configured to offer dedicated, customized cellular connectivity.

What is a WiFi Network?

WiFi networks share internet connections between devices using wireless routers connected to internet modems, which broadcast signals to WiFi-enabled devices via radio waves.



Private Cellular Networks vs. WiFi Networks Compared

Private Cellular	Attributes	WiFi
Built to enable seamless handoffs for connected devices moving through a facility	Mobility	Devices often experience a delayed handoff when moving from one access point to the next
Can provide connectivity to stationary devices, but is more suited for mobile use cases	Stationary	Seamlessly transmits consistent connectivity to stationary devices
Starts at 4x more output power than a typical indoor WiFi access point	Output Power	Has a lower output power compared to cellular networks to limit channel interference issues
Reliable range in large, sprawling areas such as outdoor spaces and campuses	Range	Limited range based on immediate proximity to network access points
Can deliver connectivity to hundreds of devices over a large expanse of space	Capacity	Can deliver seamless connectivity to smaller number of devices in a given area
Security best practices enabled as part of inherent structure, with owner control over who can access the network	Security	Enterprise-grade WiFi has essential security measures to protect users and requires an operator to enable SIM-based authentication
For maximum cost-efficiency, facilities need to balance their use of WiFi and private cellular connections	Cost	For maximum cost-efficiency, facilities need to balance their use of WiFi and private cellular connections

Where to Utilize Private Cellular or WiFi Within Your Facility



Build Connectivity For Your Use Cases With Spectrum Private Networks

Spectrum Private Networks is here to help maximize your business's connectivity. Our experienced team of experts will perform a detailed consultation to discover your specific use cases, connectivity pain points, and determine the technology that best suits your needs. Contact us today.