



Industrial
Networking
Solutions

industrialnetworking.com

Private Cellular Networking

Wider Coverage + More Security + Better Mobility

WHAT IS PRIVATE CELLULAR NETWORKING?

Private Cellular Networking (PCN) is a next-generation wireless data network utilizing cellular technology that you own and operate at your facility. It can be a cost-effective alternative to WIFI because it provides all the advanced technology benefits of a carrier-operated wireless network, including highly secure connectivity for large numbers of fixed and mobile endpoints throughout a large campus or industrial complex, but it's managed and controlled by the end-user, not the wireless carrier. Multiple campus PCNs can be interconnected to create a complete enterprise connectivity solution.

HOW IS THIS POSSIBLE?

Recent changes in the allocation of the public wireless spectrum have made it possible for organizations like yours to install a PCN, controlled by you, and free of any recurring data charges paid to a carrier. Manufacturers which supply the technology running the nation's carrier cellular networks have responded to these developments by releasing fully functional, scaled-down versions of their 4G/5G technology for private industry to use. [Industrial Networking Solutions](#) (INS) has partnered with industry leading manufacturers to bring PCN to the industrial industry.

WHEN SHOULD YOU CHOOSE PRIVATE CELLULAR NETWORKING OVER WIFI?



Broader Coverage

If you need seamless wireless coverage over a large campus or facility, whether that be outdoor, indoor or some mix thereof, a PCN has far greater range and better signal penetration into buildings and in areas with significant outdoor metal infrastructure than WIFI.



Numerous Endpoints

PCNs can connect many devices and mobile workers to a wireless LAN with far fewer antennas than WIFI. LTE technology is designed to provide hundreds of concurrent endpoints with high bandwidth, low latency connectivity per "micro tower" antenna while WIFI can only reliably handle a few dozen clients per access point, with higher latency and lower bandwidth.



Mobile Endpoints

If you have mobile assets and people "on the move", private cellular will outperform WIFI significantly. Cellular technology was designed to seamlessly process the hand-over of multiple fast-moving clients, between "micro tower" antennas without data loss.



Security

Are you concerned about hacking or eavesdropping on a WIFI network? With Private Cellular, you provision and distribute private SIM cards for end devices connecting to your network. No SIM card? No connection.

WHAT IS INCLUDED IN A PRIVATE CELLULAR NETWORKING SYSTEM?

Private Cellular Networking infrastructure includes a dedicated 4G or 5G core server installed at the customer facility with associated micro-towers to provide the wireless coverage of the site. End devices are supplied with private SIM cards to allow access to the PCN. For customer devices and area networks with an Ethernet or serial port, SIM-enabled cellular gateways can be used to provide the cellular network connection. A cloud-based management system allows the customer to monitor and manage their PCN from anywhere and create links between distinct Private Cellular Networks.

PRIVATE CELLULAR NETWORKING MANUFACTURING PARTNERS

PCN Radio Systems



CBRS Enabled 4G/5G Edge Devices



INS CAN PROVIDE A PCN SOLUTION TO MEET YOUR BUSINESS NEEDS

INS has teamed with a variety of manufacturing partners to provide market-leading PCN infrastructure and endpoint connectivity to the industrial marketplace. The INS OT Services Group can perform site surveys to determine the suitability and scope of a Private Cellular system, then install the network, train customer personnel to manage their new system, and provide on-going technical support.

Contact INS's highly experienced engineering team to discuss if a Private Cellular Network meets your business needs.