

Private LTE and 5G for Wireless LAN

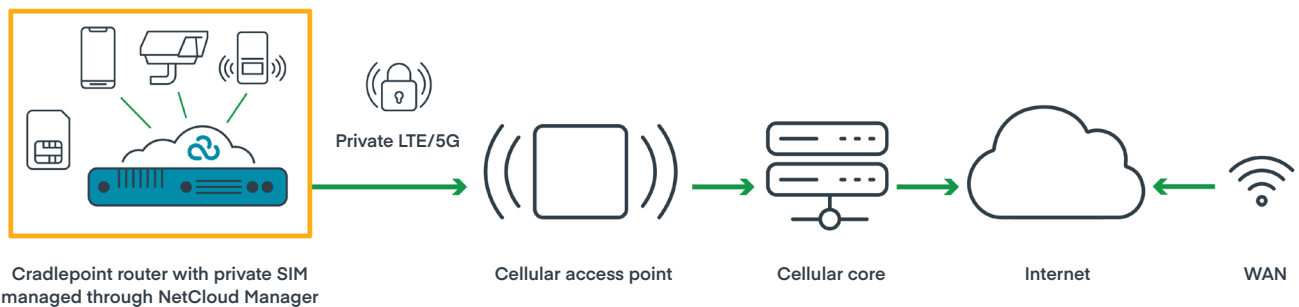
Solutions for businesses, industries, communities, and government

Challenge

More than ever, organizations need reliable wireless connectivity that offers security, increased control over data usage, and scalable coverage and capacity. Public cellular broadband and enterprise Wi-Fi networks struggle to keep up with today's demanding applications and services, large-scale deployments are met with inconsistent uptime, and network management is cumbersome. In the face of these challenges, enterprises and operators often take extreme and costly measures to support their business needs and meet customer expectations.

Solution

Private Cellular Networks (PCNs) are local LTE or 5G networks enabling enterprises, service providers, and managed service providers to deliver connectivity for organizations that need performance, range, security, control of data, mobility, and reduced costs from cabling. Select Cradlepoint cloud-managed routers and adapters serve as user equipment (UE) for Private Cellular Network deployments supporting sites, vehicles, and IoT.



Types of spectrums used for Private Cellular Networks

Private networks empower enterprises or operators to deploy and control wide-area LAN across the spectrum models described below — complementing scenarios where Wi-Fi or public cellular networks aren't optimal solutions.

Licensed	Shared	Unlicensed
<p>Enables carriers to operate Private Cellular Networks for enterprises as a managed service. Alternatively, enterprises can deploy their own PCN using spectrum licensed by carriers.</p>	<p>Enterprises can operate Private Cellular Networks in spectrum owned by others (example: CBRS which leverages up to 150 MHz of interference free spectrum).</p>	<p>Enterprises or carriers can operate LTE or 5G networks in unlicensed spectrum such as MulteFire in 5.4 GHz and use carrier aggregation to augment capacity for their networks.</p>

Private LTE and 5G use cases

Private Cellular Networks enable flexible deployment options to meet the needs of various use cases. For example, data for mission-critical or high security applications can be kept on premises. Alternatively, software-defined WAN can segment high priority traffic on the private network while routing regular traffic over the public network.



Warehouse and manufacturing

- Video surveillance
- High-definition cameras
- Data storage and transmission
- Predictive maintenance



Hospitality and venues

- Retail stores and QSRs
- Vehicles (service, bus)
- Kiosks and digital signage
- Security and surveillance



Smart City

- Video surveillance
- First responder video offload
- Smart lighting and parking
- Incident command center



Healthcare

- Medical equipment
- Patient kiosks
- Ambulance connectivity
- IP cameras



Education

- Temporary and remote classrooms
- Special events and arenas
- Digital signage
- Campus Wi-Fi and security

Benefits

Private Cellular Networks are tailor-made to support the modernization, digitalization, and infrastructure of industries today. Establishing a private network provides:

- Consistent, reliable uptime and control
- Cellular-based security
- Significant improvement in coverage and capacity over public cellular or Wi-Fi
- Seamless mobility with minimal network interference
- Control and predictability of data fees

Learn more at [cradlepoint.com/private-cellular](https://www.cradlepoint.com/private-cellular)