

# Private Networks

## Pulling out all the stops.

Private wireless networks are like private elevators for your organization's connectivity—pulling out all the stops to eliminate delays and offer a smooth ride. No more waiting in line or dealing with crowded, public networks. It's a dedicated, low-latency connection with all the bells and whistles: unmatched security and reliability and the ability to track mobile usage data.

Unlike public networks, which are managed, operated and regulated by licensed commercial providers like Wireless Carriers, a private network is a local area network that uses licensed, shared, or unlicensed wireless spectrum and LTE or 5G technology to create a dedicated network within a specific geographic area.

Think of it like a private elevator—dedicated solely to your building, ensuring smooth, uninterrupted travel to select floors without outside interference. Similarly, a private network ensures optimal signal quality, tailored to your needs, with no “stops” or disruptions. With advancements in 5G and spectrum options like CBRS, it's become easier to implement these networks.

## Why private networks?

### SECURITY & DATA PRIVACY

A private network ensures only authorized users or devices can connect, blocking unwanted access, much like restricted entry to secured spaces.



### SCALABILITY

With dedicated spectrum and configurable infrastructure, private networks expand effortlessly to accommodate more “floors” or growing users, devices, and applications, ensuring seamless connectivity as business needs evolve.



### RELIABILITY & LOW-LATENCY

A private elevator is less likely to be out of service or crowded compared to a public elevator. Similarly, a private network ensures better reliability for coverage and capacity, especially in areas where public networks may struggle or become congested.



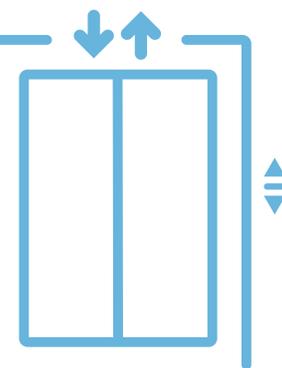
### INTEROPERABILITY

Designed to integrate smoothly with various technologies and public networks, just as elevators can connect in and out of different floors, private networks enable efficient communication across all systems without disruption.



### DATA ANALYTICS

Private networks allow enterprises to track mobile data, like device usage, to optimize performance and enhance security. This feature may allow for new avenues of commercialization for the enterprise like point-of-sale advertising.



## Elevating connectivity across industries.

Private networks are taking industries to the next level with high-bandwidth, low-latency connectivity that scales well into the future. The enhanced reliability and unmatched security offered by these networks opens the door to new opportunities. Here are just a few of the ways we're seeing these networks in action.

### HEALTHCARE



**Remote Surgery**

### EDUCATION



**Interactive Learning**

### FINANCIAL SERVICES



**Secure Transactions**

### INDUSTRIAL & IOT



**Drone Management**

### ENTERTAINMENT



**Virtual Concert Experiences**

### TRANSPORTATION



**Remote Port Management**

## Opportunity ahead? On the way up.

Industry organizations are working hard to make private networks a reality for the enterprise. These groups are pushing the boundaries of technology, but many factors need to be solved before the benefits of a private network can be fully realized. From interoperability to cost-efficiency and full Wireless Carrier participation, these challenges will need to be addressed to ensure that private networks can deliver real value.

**TDC MEMBER**



### ADOPTION BARRIERS

Wireless Carriers remain primarily focused on public networks and without full participation, gaps in adoption will persist.

### ENTERPRISE AWARENESS & PRACTICAL APPLICATION

While confidence in private networks is growing, many industries are unaware of their potential and the use cases feel far out.

### EFFICIENCY AND COST

Energy efficiency, transition costs, and high operational expenses remain key factors to making the private network business model work.

### INTEROPERABILITY & STANDARDS EVOLUTION

Seamless multi-vendor integration remains a challenge, but industry groups like the O-RAN Alliance are closing the gap.

### ECOSYSTEM MATURITY & SECURITY

A strong vendor ecosystem is key to deploying these networks, while managing the risk in disaggregated networks.



#### THE TDC TAKE

Private networks are like express elevators for connectivity—full of potential but still finding the right floors. They won't be a fit for everyone, so it's about making sure the ride takes you to the right level to balance effectiveness with value.

Tillman Digital Cities (TDC) designs, installs, owns and maintains in-building connectivity solutions to solve today's challenges and plan for tomorrow's ambitions. As part of Tillman Global Holdings—which has deployed over \$10B in communications infrastructure in two dozen countries worldwide—connectivity is at our core. At TDC, we partner with Wireless Carriers, Service Partners and Enterprises to deliver custom, future-proof solutions backed by advanced technologies and a proven track record of excellence every step of the way.