# Ubiquiti Wireless Bridge

Required Equipment

Each building will require the following equipment to setup a point-to-point or point-to-multipoint wireless bridge solution:

- Ubiquiti Rocket Prism 5AC Gen2 airMAX ac BaseStation with airPrism Technology

- UISP Horn Antenna

- Power Over Ethernet (PoE) Switches or PoE Injectors for each Ubiuiti Rocket Prism 5AC Gen2 airMAX ac BaseStation

- Internet access at the primary building/site

Telesystem's Ubiquiti Networks Wireless Bridge provides a low cost Point-to-Point or Point-to-Multipoint solution for customers. Imagine you have a building with high-speed internet connectivity, and a second building near by that you want to connect to the internet. Instead of paying for a second high-speed connection to deliver connectivity to the second building, a Wireless Bridge can be utilized to share the connectivity of the first building.

Two directional wireless access points are installed on the roofs of the buildings involved, creating a wireless link between them, essentially creating the equivalent of a wired link between the networks of the two buildings. The result is that the internal networks of the two buildings are integrated into a single network, sharing all available network resources, including internet connectivity.
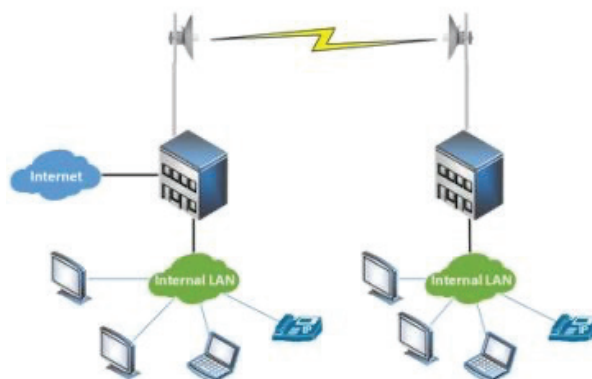
Use Cases

Point-to-Point (PtP) and Point-to-Multipoint (PtMP) wireless bridge solutions can be deployed to meet different networking and communication needs, offering flexibility, scalability, and cost-effectiveness in various scenarios. Here are some common use cases for these wireless bridge solutions:

Point-to-Point (PtP) Wireless Bridge:
1. Building-to-Building Connectivity: PtP wireless bridges are often used to establish high-speed, reliable connections between two separate buildings or locations. This can be useful for connecting offices, warehouses, or remote sites without the need for expensive trenching or laying cables.
2. Video Surveillance: PtP bridges can be used to connect security cameras at different locations back to a central monitoring station. This is essential for surveillance in large campuses, industrial facilities, or remote areas.
3. Temporary Event Connectivity: PtP bridges can be deployed at temporary events, such as outdoor concerts or sports events, to provide high-speed internet access, ticketing systems, and streaming services.

Point-to-Multipoint (PtMP) Wireless Bridge:
1. Remote Monitoring and Telemetry: Industries like agriculture and utilities use PtMP bridges to connect remote sensors, meters, and monitoring equipment to a central control system, allowing for real-time data collection and control.
2. Campus Wi-Fi Extension: Educational institutions and large corporations use PtMP bridges to extend Wi-Fi coverage across a campus or office complex, connecting multiple access points wirelessly.
3. Smart City Infrastructure: PtMP bridges play a crucial role in smart city deployments, connecting various IoT devices, streetlights, traffic cameras, and sensors to a centralized management system.
4. Emergency Services: In disaster recovery scenarios, PtMP bridges can quickly establish temporary communication networks for first responders, allowing them to coordinate and share critical information.

Ubiquiti Rocket Prism 5AC Gen2 airMAX ac BaseStation with airPrism Technology
- UDesigned with high performance and ease of installation in mind. The Rocket Prism 5AC Gen 2 features both airMAC ac and airPrism technologies for maximum wireless performance in high-density areas.
- Capable of high-speed carrier class links
- Precise GPS frame synchronization enable co-located Rocket Prism radios to transmit and receive data without interfering with each other, allowing for better frequency reuse and increased network stability.
- Each Rocket Prism 5AC Gen 2 with airMAX ac requires a UISP Horn Antenna in order to communicate properly.

UISP Horn Antenna
- High-isolation, point-to-multipoint (PtMP) horn antenna that covers a wide operating frequency range
- Uses Ubiquiti airMAX
- GPS Functionality
- 5.15 to 6.875 GHz Frequency Range
- Up to 27 dBm power output
- Up to 500+ Mbps TCP/IP Throughput
- Dedicated management radio for setup using the UISP app