Blackfoot Communications

Blackfoot Wireless Options

MICROWAVE TRANSPORT TECHNOLOGIES

UNLICENSED RF

Speed Range: 10Mbps to 1Gbps
Distance Range: 200 feet to > ~6 miles
Latency Range: 20ms to <1ms
Operates In: 2.4, 5, 24 or 60 Ghz spectrums
Carrier Grade: Technology

UNLICENSED MPRF (POINT-TO-MULTIPOINT)

Available in major Montana markets. Primarily operate in the 5Ghz spectrum.

☑ Asynchronous

Speeds up to 40Mbps or more. Bandwidth limits set based on customer need. Last mile latency 5-10 ms.

☐ Full Synchronous

☐ Licensed with FCC

☑ Quality of Service

Physical layer QoS for voice prioritization.

UNLICENSED PTP-RF (POINT-TO-POINT)

Best for short range links.

☑ Asynchronous

Can transmit many miles, but in urban areas spectrum availability is unlikely.

☑ Full Synchronous

Lower latency than MPRF. Ethernet hand-off of 1-2ms switch-to-switch. GB speeds at very small distances.

☐ Licensed with FCC

☑ Quality of Service

LICENSED RF

Speed Range: 10Mbps to 10Gbps
Distance Range: 600 feet to 60+ miles
Latency Range: Ultra-low, measured in μs
Operates In: All FCC licensed frequencies in U.S.
Carrier Grade: Equipment

LICENSED PTP-RF (POINT-TO-POINT)

Link aggregation, RF circulation for multiple radios on a single antenna.

☐ Asynchronous

☑ Full Synchronous

Uses different frequencies to transmit and receive data. Fiber hand-off latencies as low as 200μs. Ethernet hand-off latency of <2 ms switch to switch.

☑ Licensed with FCC

☑ Quality of Service

Built in QoS.

All Outdoor Design: All outdoor electronics, attached to the back of the antenna. Powered by PoE or DC. Fiber or Ethernet from the roof into the building.

Split Mount Design: Indoor Network Interface Unit and power supply are rack mountable. Radio hardware outdoors with antenna. LMR400 Coax Cabling between the Indoor and Outdoor equipment.

PROFESSIONAL SERVICES

Blackfoot can engineer and maintain private network LAN and campus extensions.

- **Engineering:** Site design; tower and roof mounting requirements; path profiles and analysis
- **Additional Options:** Usage and statistics monitoring and logging; yearly equipment maintenance; access to local sparing in case of hardware failure

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