Tsunami Multipoint

Wireless Point-to-Multipoint System

APPLICATIONS

- Last mile access
- Extending VoIP service to remote sites
- Leased line replacement
- Fast service deployment into multi-tenant, rural areas
- Campus networking

Cutting-Edge Technology Delivers Carrier-Class Performance

The Tsunami Multipoint wireless Ethernet system delivers cutting-edge technology built on over twenty years of wireless innovation. Advanced features deliver reliable, cost-effective alternatives to legacy leased lines, while delivering superlative network performance. The combined throughput and reliability make the Tsunami Multipoint systems perfect for high-performance campus networks, and densely populated last mile Internet access. Proxim point-to-multipoint innovation includes:

- Patented Active Interference Rejection (AIR) technology, which uses a pre-processing filter to nullify interference in the 5.8 GHz band
- Proxim's finely honed wireless transmission protocol, which delivers 200% better throughput than competitors, achieved through protocol efficiency gains
- Specialized traffic prioritization algorithms and VLAN functionality, enabling latency-sensitive application performance
- Unique Ethernet plus power technology, combining power and network connections into a single Cat5 link
- Connections engineered with true carrier-class 99.995% reliability

Simplify Operations and Cost-structure

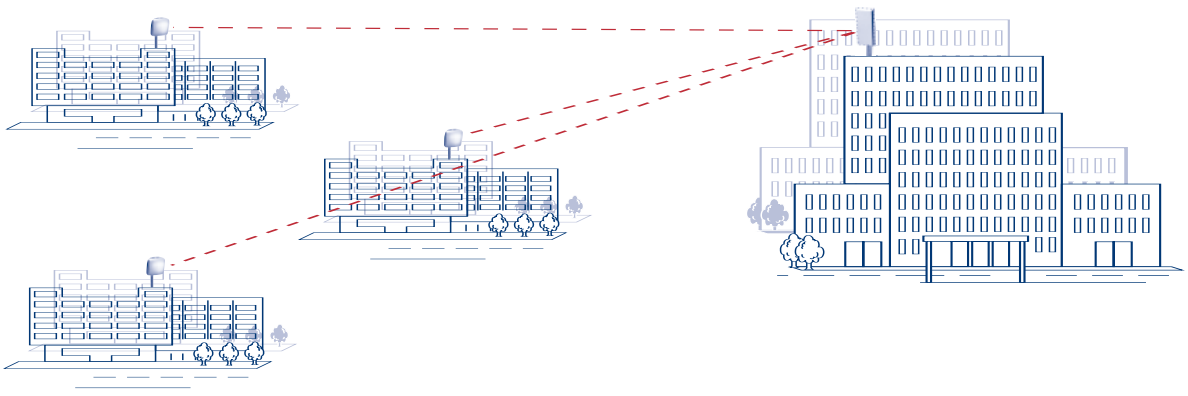
Tsunami Multipoint dramatically simplifies the installation and maintenance of high-performance network links. These results translate into a quick payback period relative to leased lines, and have many direct cost-saving benefits.

- Private infrastructure eliminates recurring monthly leases and bypasses telephone tolls
- Outdoor weatherized Subscriber Unit allows system maintenance without entering the subscriber's building
- Single cable design eliminates installation labor and expense
- Antenna connectors facilitate coverage area "shaping" and reduce initial infrastructure costs
- Audible tones guide directional positioning, allowing one-person installation
- Remote SNMP management proactively detects issues
- Unlicensed band operation eliminates regulatory delays and fees/costs

Unrivaled Performance Trounces Competition

Performance, capacity and scalability are critical concerns in designing business networks. Whether it's expanding service footprint or connecting buildings on a new campus, system performance dictates the success of critical applications. Tsunami Multipoint offers:

- Industry-leading 60 Mbps and 20 Mbps over-the-air transmission rates
- Unrivaled 54 Mbps and 18 Mbps throughput rates – 200% higher than closest competitor
- 99.99%+ effective interference prevention, yielding superior performance in high-density areas
- Base Station Unit support for 1000+ Subscribers Units, scaling to network and subscriber demand
- 6 miles/10km range, easily linking sites and extending VoIP functionality



Tsunami Multipoint Specifications

	MODEL	MODEL NUMBER	AGGREGATE THROUGHPUT	THRESHOLD (BER=1X10^{-6})	OUTPUT EIRP	ACTIVE INTERFERENCE REJECTION (A.I.R)
Base Station Unit (BSU)	60 Mbps	301-40400-65	17, 25.5, 34, 51 Mbps	-77 dBm	36 dBm	
	20 Mbps	301-40400-25	17 Mbps	-89 dBm	36 dBm	
	60 Mbps	301-40400-65R	17, 25.5, 34, 51 Mbps	-77 dBm	36 dBm	✔
	20 Mbps	301-40400-25R	17 Mbps	-89 dBm	36 dBm	✔
Subscriber Unit (SU)	60 Mbps	301-40100-652	17, 25.5, 34, 51 Mbps	-89, -85, -81, -77 dBm	35 dBm	
	20 Mbps	301-40100-252	17 Mbps	-89 dBm	35 dBm	

SYSTEM	
Operating Frequency Range	5725-5825 MHz
Radio Access Method	TDMA
Duplexing	Time Division Duplex (TDD)
Integrated Antenna: BSU/SU	18 dBi (60˚ x 6˚)/20 dBi (10˚ x 10˚)
Max Subscriber Units/BSU	1,023
Distance/Capacity Limits (clear line of site/over the air)	60 Mbps at 3 miles/5 kilometers; 20 Mbps at 6 miles/10 kilometers
Frequency Channels	4 non-overlapping, 6 available
Regulatory Compliance	FCC Part 15.400 (U-NII); FCC Part 15.247 (ISM) 20 Mbps only; Industry Canada RSS210; Model 40100-25/40100-65 (SU); Model 40400-25/40400-65 (BSU)

STANDARDS COMPLIANCE AND INTERFACES	
Ethernet Interface	10/100BaseT
Ethernet Connector	RJ45 female
SU indoor-outdoor cable	RJ45 (outdoor) & DIN (indoor) over Category-5 cable
BSU indoor-outdoor cable	Weatherproof RJ45 connectors over Category-5 cable
Standards Compliance	IEEE 802.1d Bridging Mode; IEEE 802.1q transparent VLAN tagging

CONFIGURATION AND MANAGEMENT	
Base Station Unit Configuration	Via Ethernet
Subscriber Unit Configuration	Automatic
Management	Via optional SNMP Toolkit (p/n 501-40400-ST)
Security	Authentication, IP/MAC Filtering
Software Upgrades	Over-the-air Subscriber Unit reprogramming; Downloadable Base Station Unit reprogramming

POWER/ENVIRONMENT	
Electrical:	
Base Station Unit	+48 Volts DC, 1 Amp
Subscriber Unit	+28 Volts DC, 0.6 Amps
Base Station Unit Power Brick	100–240 Volts AC, 50/60 Hz
Subscriber Unit Power Brick	110 or 220 Volts AC
Operational Temperature	-25˚–55˚ C (BSU and SU only)
Humidity	5%–100%, condensing
MTBF	Base Station Unit: 75,000 hours; Subscriber Unit: 100,000 hours
FCC	Part 15/Class B

PHYSICAL DIMENSIONS	SIZE (W x H x D)	WEIGHT
SU (Outdoor Unit)	10.5 x 10.5 x 6.8 in/26.5 x 26.5 x 17.4 cm	10 lbs/4.5 kg
SU Power Brick (Indoor Unit)	3.6 x 5.1 x 2.6 in/9.2 x 13 x 6.7 cm	2.7 lbs/1.2 kg
BSU (Outdoor Unit)	10.2 x 24 x 6.6 in/25.9 x 61 x 16.8 cm	20 lbs/9 kg
BSU Power Brick (Indoor Unit)	3.7 x 7.1 x 2.5 in/9.5 x 18 x 6.3 cm	1.5 lbs/0.7 kg

MOUNTING (INSTALLATION)	
Base Station Unit	Pole Mount, 1.75–2.75 in dia.
Subscriber Unit	Pole Mount, 1.25–1.75 in dia.

WIND LOADING	
Maximum operational wind speed	50m/s (112mph)
Maximum survivable wind speed	90m/s (200mph)

WARRANTY
1-year limited parts and labor
Service Packs available for priority technical assistance

Tsunami Multipoint with External Antenna Connector

	MODEL	MODEL NUMBER	AGGREGATE THROUGHPUT	THRESHOLD (BER=1X10^{-6})	OUTPUT POWER
Base Station Unit (BSU)	60 Mbps	301-40400-65C	17, 25.5, 34, 51 Mbps	-77 dBm	17 dBm
Subscriber Unit (SU)	60 Mbps	301-40100-652C	17, 25.5, 34, 51 Mbps	-87, -83, -79, -75 dBm	17 dBm

SYSTEM	
Operating Frequency Range	5725-5825 MHz
Radio Access Method	TDMA
Duplexing	Time Division Duplex (TDD)
Max Subscriber Units/BSU	1,023
Distance/Capacity Limits (clear line of site/over the air)	60 Mbps at 4 miles/6.9 kilometers; 20 Mbps at 6 miles/10 kilometers
Frequency Channels	4 non-overlapping, 6 available
Regulatory Compliance	FCC Part 15.400 (U-NII); Industry Canada RSS210; Model 40100-652C (SU)/40400-65C (BSU)

STANDARDS COMPLIANCE AND INTERFACES	
Ethernet Interface	10/100BaseT
Ethernet Connector	RJ45 female
SU indoor-outdoor cable	RJ45 (outdoor) & DIN (indoor) over Category-5 cable
BSU indoor-outdoor cable	Weatherproof RJ45 connectors over Category-5 cable
External Antenna Connector	Standard -N Female
Standards Compliance	IEEE 802.1d Bridging Mode; IEEE 802.1q transparent VLAN tagging

CONFIGURATION AND MANAGEMENT	
Base Station Unit Configuration	Via Ethernet
Subscriber Unit Configuration	Automatic
Management	Via optional SNMP Toolkit (p/n 501-40400-ST)
Security	Authentication, IP/MAC Filtering
Software Upgrades	Over-the-air Subscriber Unit reprogramming; Downloadable Base Station Unit reprogramming

POWER/ENVIRONMENT	
Electrical:	
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