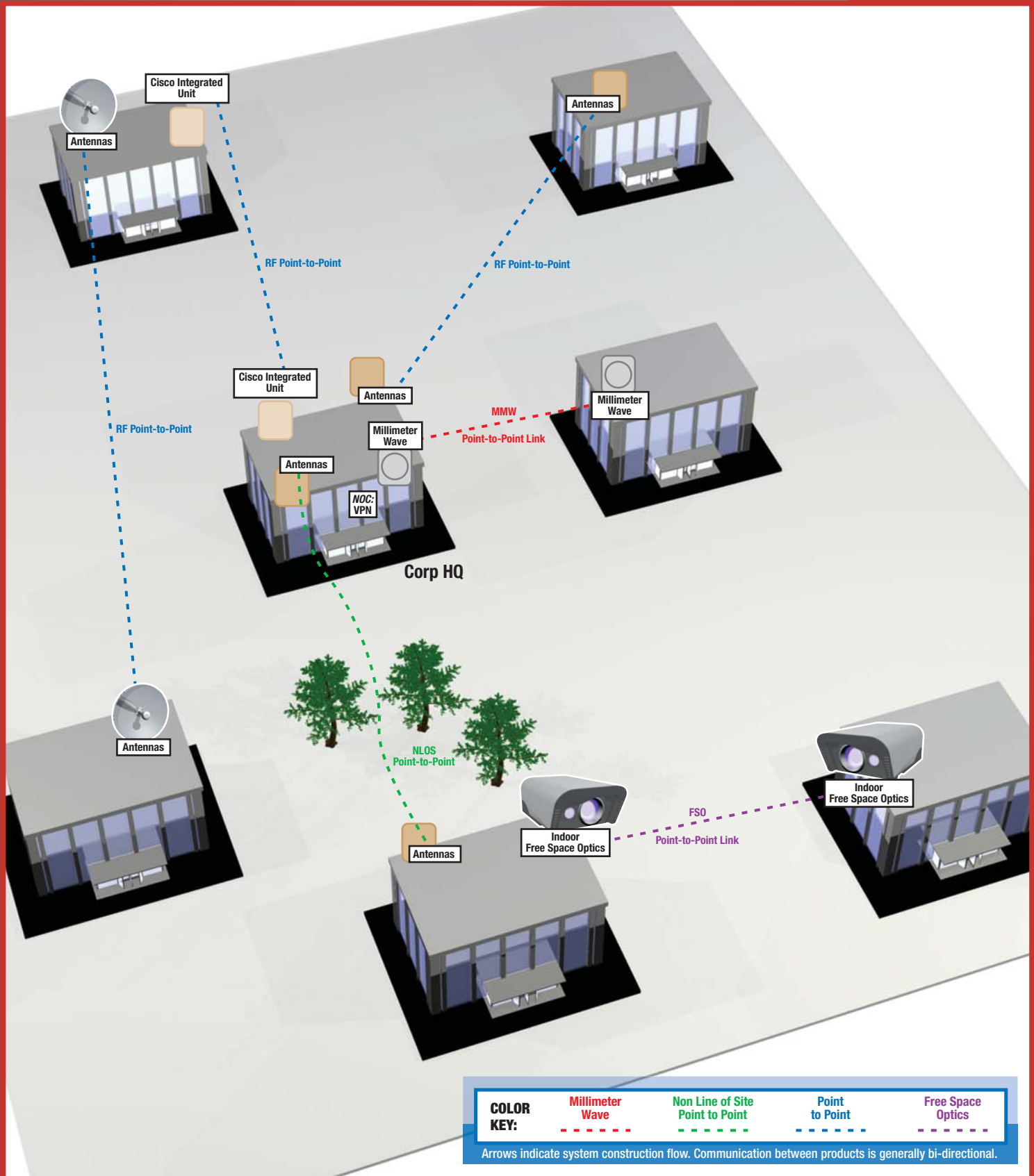


Illustrated Applications from TESSCO



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Wireless Wide-Area Network (WWAN)

MARKETS

Internet service providers (ISP), enterprise, education, healthcare, government, public safety, utilities

USES

- Connectivity between multiple buildings
 - > LANs
 - > PBXs
 - > Data, voice, video
- Leased line replacement
- Alternative to fiber
 - > When fiber is not an option (e.g., railroad tracks, river, etc.)
 - > Better return on investment (ROI)
 - > Quicker installation
- Temporary network

FEATURES

- Speeds ranging from 2 Mbps to 54 Mbps
- Distances ranging from a few meters to 12 miles
- Integrated and/or external antennas
- Licensed spectrum from 4.9 GHz
- Unlicensed spectrum of 900 MHz, 2.4 GHz, 5.3 GHz, and 5.8 GHz
- Line-of-sight (LOS), near line-of-sight (NLOS) and non-line-of-sight (N-LOS) paths

BENEFITS

- Quick deployment time
- Portability
- Scalability
- Quick ROI
- Versatile network connections
- Carrier-grade reliability

INFORMATION NEEDED

- Link distances
- Bandwidth requirements
- Path characteristics (LOS, NLOS or N-LOS)
- Security requirements
- Reliability requirements
- Antenna placement information
- Environmental characteristics
- Link budget

CRITICAL CONCERNS

- Grounding and lightning protection
- Network interface requirements
- Fresnel Zone clearance

OTHER EQUIPMENT OPTIONS

- Cable and connectors
- Grounding and lightning arrestors
- Antennas
- Network routers and switches
- Towers and mounting hardware
- Enclosures
- Power solutions
- Test equipment
- Tools