

Application Note

Enterprise Connectivity

Enterprises such as banks, municipalities, utilities, hospitals and manufacturing can have similar communication needs and goals: establishing reliable and secure broadband access, while reducing infrastructure costs. Common options such as a T1 or DS3 line can be expensive, and are recurring expenses - with fiber installation costs often going into six figures.

Enterprises of all sizes can reap the benefits of cost-effective broadband access. Multiple-building connectivity can present even more challenges for networking professionals. Obstacles like roads and highways, waterways, etc. can make private wireline connections extremely expensive - that's if wire is available in the first place!

With Broadband Fixed Wireless (BFW) it is now possible to link multiple buildings together with high-speed connections at distances of up to 50 miles long. One initial investment replaces ongoing monthly charges from carriers, charges that escalate as data usage increases.

For rural applications, the "digital divide" continues despite years of programs designed to close the gap. This exists as many rural

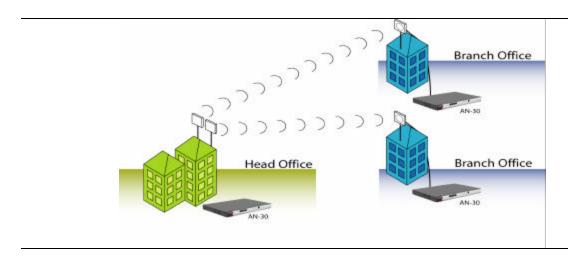
Wireless connectivity provides reliable high-speed network links for enterprise, including utilities, municipalities, hospitals, banks and manufacturing

locations are not serviced by affordable highspeed wireline connections (ISDN, T1, DSL, DS3, cable and fiber).

Redline products boast several advantages over traditional wireline and wireless offerings, including greater availability, lower cost of ownership per link, higher throughput (with the exception of fiber), greater portability, quicker time to market and greater distances. In sum, long-range outdoor wireless connections have emerged as the best alternative to expensive carrier provided land-based circuits.

Additionally, wireless links can provide an inexpensive redundant link to carry voice and data traffic to meet business continuity requirements.

For security sensitive applications, such as banking, Redline products feature "over-the-air" proprietary security, ensuring branch offices are always reliably and securely connected.



Redline's (T1/E1) systems are designed to provide data and voice solutions for:

- Medium and Large Enterprises
- Local and Regional Governments
- Schools, Libraries and Hospitals
- Public Safety Organizations
- Property Management Companies
- Telephony / IT centralization

Typical Uses

- Alternative to telco for voice and high speed IP connectivity over wireless links
- Extend head office and regional office systems out to branch locations
- Enable branch office PBX and Server connections from centrally located equipment with head-office like performance.

Key Features

- OFDM technology provides robust wireless links even in the presence of multipath interference
- Ability to operate in some non line of sight conditions
- Ranges of 80 km (50 miles)
- Extremely low latency for time sensitive applications like VoIP and video conferencing
- Adaptive modulation adapts to changing line conditions for robust link reliability
- Offers high speed 64 QAM modulation
- Carrier class remote Network Management System support
- Over the air encryption
- AN-30: Carries up to 4 T1/E1 and up to 30 Mbps over 100BaseT interface
- AN-50: Carries up to 48
 Mbps data rate over
 100BaseT interface, point to point or point to multipoint
- Single or dual AC or DC power supplies for redundancy

Additional Benefits

- Allows PBX and data consolidation across multiple buildings or campus architecture, allowing 4 digit dialing applications
- AN-30 supports T1/E1 connections based equipment AND protects your investment if connections are converted to IP only
- Transports voice, video and data on a single link
- Reduces the cost of providing high speed data links between locations and eliminates OPEX.
- Proactive remote management and diagnostic tools for your telephony and IT staff
- Can provide a redundant link for business continuity





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