Application Note

Multi-Tenant Unit

Wireless provides reliable broadband connectivity to the MTU market
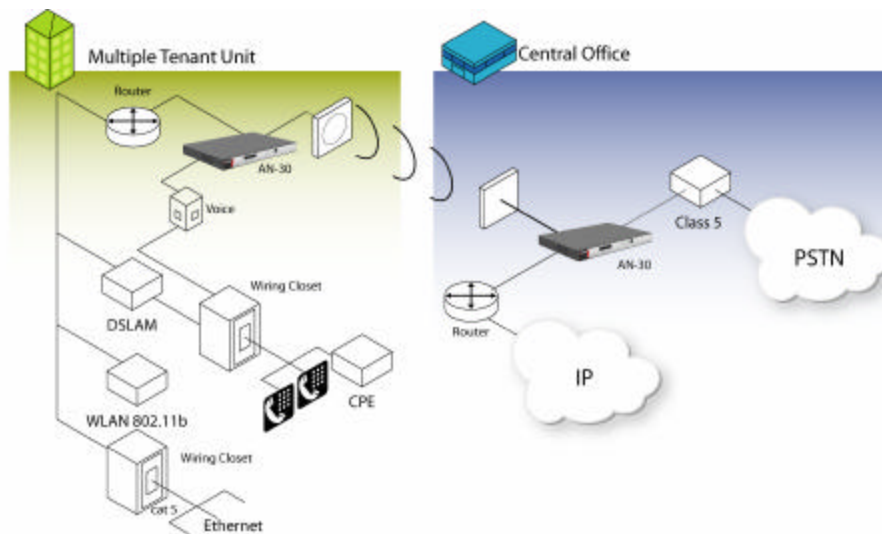
Multi Tenant Units (MTUs), Multi Dwelling Units (MDUs), hotels and other shared buildings represent a significant opportunity for service providers and property owners to offer their tenants a full suite of services including high-speed data, voice, video and security services. Multi Tenant Units have the advantage that they share infrastructure resulting in reduced capital and operational costs.   Also, the type of

services demanded by the residential or business tenants tends to be similar allowing the service provider an opportunity to bundle services – for example, voice, high speed internet and video for residential and voice, IP-VPN, Web hosting, Firewall, data storage for business, etc.

Business Requirement

Providing a rich bundle of services to MTU/MDU tenants presents a unique opportunity for service providers (property managers, CLEC, BLEC) to benefit from the shared infrastructure.

In many cases, tenants will consider the availability of these services when selecting a residential or office location. The availability of DSL and Cable Modem to residential and business customers served by the incumbent phone and cable companies means that MTUs that can offer services will attract valuable tenants. Residential customers expect reliable, cost effective phone, data and video services. Business customers and telecommuters require reliable secure services – their livelihood depends on this.

The challenges faced by the service providers include: WAN connection from the MTU to the ISP, Telephony and Video provider and also connecting the individual tenants.

The connection to the ISP for high-speed data and video will typically be IP based, the voice calls are generally T1/E1 circuit switched today with Voice-over-IP and IP-PBX in the future.

Redline's AN-30/AN-50 offers an ideal solution in a compact 1U form factor. The AN-30 can transport up to four full rate T1/E1 lines as well as up to 30 Mbps of data over a wireless connection.

Within the building, voice services are typically provided over existing twisted pair copper which

can also be used to distribute broadband services using xDSL. Office buildings typically have Cat 5 wiring already in place for data and voice.

Wireless Advantage

Broadband wireless allows the service provider to rapidly set up a high-speed connection for high-speed data, voice and video. The Non-Line-Of-Sight (NLOS) capability of Redline's products allows for easy installation, even in difficult urban or remote locations.

Compared to land based solutions, the AN-30/AN-50 products do not incur a monthly cost, provide much higher data rate (up to 48 Mbps) and allow simultaneous transport of T1/E1 and IP traffic. Quality of Service (QoS) support on Redline products ensures that residential and business customer service level agreements are met.

The wireless system can cover a span of up to 80 km (50 miles) allowing service to be provided to even the remotest of locations. One initial investment replaces ongoing monthly charges from carriers - charges that escalate as data usage increases.

Redline AN-30: Redlines AN-30 system is designed to provide voice and data solutions for:

- Property Management Companies
- BLECS
- Carriers and Service Providers
- Medium and Large Enterprises
- Local and Regional Governments
- Schools, Libraries and Hospitals
- Public Safety Organizations

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

Benefits to MTU Service Providers

- 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 diagnosis tools for your telephony and IT staff

- Can provide a redundant link for business continuity

Available Via: