MobileAccessVE WiMAX

Operational Description

MobileAccess**VE** WiMAX solution provides enhanced, cost effective in-building WiMAX coverage for enterprise environment. This solution is quickly and simply deployed using the existing cable infrastructure to provide instant MIMO or SISO WiMAX coverage without requiring the installation of new cables and without affecting existing LAN services. VE minimizes disruption while providing a scalable and flexible solution at a significantly lower total installation cost.

The MobileAccessVE WiMAX Solution

The VE solution consists of the following main components:

- **VE Control Unit (VCU)** - interfaces with the Service Provider's RF capacity sources and VE Access Pods (VAPs). It combines the WiMAX wireless services with the Ethernet service and distributes them to the VAPs over CAT-5e/6 cables. Each VCU can support up to 12 VAPs. Coverage can be expanded by connecting up to 12 Slave VCUs where the Master VCU interfaces to the RF capacity source and the Slave VCUs to the VAPs. Each VCU can serve as either Master or Slave depending on its connections.

- **VE Access Pods (VAPs)** – distribute WiMAX wireless services and provide Ethernet/IP connectivity (and PoE pass-through) to connected IP appliances, such as WiFi APs and IP Phones. VAPs are distributed at strategic locations over one or more floors, and plug into RJ-45 jacks, which are connected to the VCU via exiting CAT-5e/6 infrastructure. VAPs are remotely powered by the VCU utilizing PoE, eliminating the need for local powering. VAPs are equipped with internal antennas, as well as, with connectors for (optional) external antennas connection.

Figure 1. MobileaccessVE WiMAX components

Key Features and Benefits

Low Deployment Cost

- Connects over existing Cat 5/6 cabling infrastructure and existing Ethernet jacks
- Simple installation - deployed in few hours, with minimum disturbance to the enterprise
- VAPs are remotely powered using Power-over-Ethernet (PoE) – no local power required
- Minimum macro-network impact with low power distributed coverage
- Seamlessly coexists with the Enterprise LAN and does not consume LAN capacity

Flexible & Scalable Architecture

- Connects to all types of capacity sources: BTS, Picocells, Femtocells, and BDAs

- Supports both MIMO and SISO
- VAPs can be easily relocated for coverage modifications as needed
- Ease of expansion provides 'pay as you grow' scalability
- Support of connected IP devices (computers, IP phones etc) with Ethernet/IP pass through and PoE maximizes placement flexibility

Carrier-Grade Management

Remote end-to-end system monitoring, management and configuration using standard web browser and SNMP

Figure 2. MobileaccessVE WiMAX architecture