

# Airvenue Wireless Networking

The future of telecommunications is wireless. Enterprises and service providers are searching for ways to extend the reach of their existing network infrastructures and improve the productivity of their clients by providing untethered access to their networks—at the office, from home or anywhere around the world. As a result, the focus of networking today is on Wireless Local Area Networks (WLANs) and the freedom of access they promise.

But current wireless networking options are complicated and costly when they grow beyond a few users and a single access point. Large WLANs require a lot of wire. The multiple access points, endless feet of cable to and from switches and routers, security issues and maintenance requirements create costly deployment nightmares that complicate the road to wireless freedom.

The Airvenue approach to wireless networking changes all that by providing a much larger wireless access coverage area with each node and by interconnecting the nodes wirelessly, thereby eliminating the need for all those access points, wires and switches.

## **Beyond Basic WiFi**

Airvenue is a wireless infrastructure supplier that provides advanced, broadband, wireless networking solutions built around WiFi, WiMAX and cellular technologies, optimized for high density hot zone and metro deployments.

Airvenue wireless networking solutions are built on a cellular LAN architecture, which integrates wireless access with wireless backhaul in an innovative multiple point-to-point mesh to provide a high-capacity wireless backbone. This cellular LAN is created with completely integrated wireless internetworking platforms that are designed for deployment outdoors to provide coverage over large areas and into buildings.

The complete Airvenue offering simplifies wireless infrastructures and delivers unmatched coverage, capacity and deployment flexibility for high capacity data, video and voice services.

Most importantly, the Airvenue solution offers the lowest-cost network deployment for large wireless LANs, and is the only system that can deliver WiFi access over large areas in dense urban environments.

## **Simplify WLAN Infrastructures**

The Airvenue cellular LAN architecture is enabled by Airvenue completely integrated outdoor cellular LAN platforms, which provide a network-in-a-box wireless networking solution.

The Airvenue cellular LAN architecture dramatically reduces T1 and DSL backhaul costs, which have so far stifled the deployment of large hot zone and metro WiFi networks.

To create the mesh, Airvenue uses unique, outdoor wireless internetworking platforms that beam WiFi signals into buildings from the outside. Multiple backhaul radios in each node are configured point-to-point with directional antennas. Each node can connect to multiple others, and the combined connections form the wireless backhaul mesh.

There are no extra switches, routers or cables required to connect multiple platforms. The fully meshed wireless backbone provides operator-class network-level redundancy to ensure service availability without operator intervention.

By integrating the access radio and the interconnection network between access points into a single, compact, outdoor package, the Airvenue solution:

- eliminates the need for cables, extra switches and routers to interconnect wireless nodes
- requires five to ten times fewer access points compared to indoor solutions
- eliminates disruptive, in-building network deployment
- reduces WLAN capital expenditures by up to 70%
- reduces WLAN operating expenditures by up to 90%
- eliminates T1, DSL and other backhaul costs
- provides five to ten times more capacity and five times more range compared to traditional wireless mesh architectures.

## Deliver Multiple Applications

Airvenue solutions change the rules of wireless networking. They allow network operators to quickly and easily build networks for public Internet access applications such as:

- E-mail
- Web surfing
- Instant messaging
- Corporate VPN access

They can also be used for closed and private wireless applications such as:

- Corporate VPNs
- Security and surveillance
- Operations messaging and tracking
- File and printer sharing

These applications can be provided for:

- Large WiFi Hot Zones
- Hotels, conference and convention centers and resorts
- Office buildings and corporate campuses
- Manufacturing centers and research parks
- University and college campuses
- Airports, train stations and bus terminals
- Large warehouses and shipping yards
- Construction sites
- Apartment buildings
- Shopping malls
- Complex shaped buildings
- Heritage buildings
- Metro WiFi Zones
- Urban centers
- Municipal offices
- Recreation areas
- Business districts and office parks
- Transportation corridors
- Police, health, fire, and other emergency response units
- WiFi Hot Spots
- Coffee shops
- Book stores
- Restaurants

Airvenue solutions go beyond basic WiFi to provide carrier-grade, wireless networking without limits for service providers, enterprises, and users.