Voice over Wi-Fi

First, there were bulky computers. Then came laptops to make mobile computing a reality. Now Wi-Fi is a standard offering on laptops emphasizing that enterprise mobility is a requirement, not a choice.

Why should mobility be limited to laptop PCs and data connectivity? Aruba has played a central role in unwiring office laptops. Extending the same service to the desk-phone is a natural evolution. Wi-Fi phones – unwired Voice-over-IP desk phones – are already widely deployed in certain industries where they have been used for many years. Nurses and other healthcare workers, manufacturers and retail employees are seldom at their desk, and need to receive calls as and where they work. These highly mobile users have been using their Wi-Fi network to enable voice mobility and stay connected with their colleagues and outside world. And when buildings suffer from poor cellular coverage, Wi-Fi handsets are well-placed to provide mobile voice services.

Wi-Fi phones use the same Wi-Fi infrastructure that is used for data connectivity, so rolling out Voice over Wi-Fi on an existing Aruba WLAN will involve minimal incremental cost and time. As enterprises roll out Wi-Fi for data connectivity, replacing desk phones with Wi-Fi voice handsets enables the all-wireless office.

The Aruba Solution

Aruba’s user-centric networks are voice-ready out of the box. Numerous installations world-wide encompass a range of Wi-Fi handsets and PBXs with proven interoperability, backed by Aruba’s partner certification program.

Wi-Fi handsets offer the features of a PBX phone, but with the added utility of full enterprise-wide mobility. Whether a customer wishes to integrate a PBX vendor’s branded Wi-Fi phone or one of the many third-party offerings, the Aruba WLAN provides superior performance.

Aruba’s Wi-Fi solutions optimize real-time applications over the Wi-Fi network by incorporating the latest standards, and hence work with all standards-compliant handsets.

Benefits:

- Fully standards-compliant, with the highest level of standards supported
- Automatic multi-service QoS configuration
- Advanced Layer 4-7 call awareness allows improved QoS, security, monitoring
- Significant world-wide installed base
- Interoperable with all leading PBX and Wi-Fi handset vendors
Quality of Service (QoS) is provided through the Wi-Fi Alliance WMM standards, and enhanced by linking to Aruba’s follow-me connectivity, identity-based access and application continuity services, such as inhibiting background RF scanning when voice calls are in progress.

Seamless handover is a function of Aruba’s centralized architecture, minimizing inter-access point control traffic, and other features such as Opportunistic Key Caching and RF management technology that ensure even, seamless Wi-Fi coverage throughout the building.

Voice applications demand superior security, so an application-layer gateway monitors voice signalling protocols such as SIP, ensuring that only authorized clients are given high priority services.

Benefits of the Aruba Voice Over Wi-Fi Solution

All Aruba user-centric networks are voice-ready. They provide standards-compliant quality of service, call admissions control, voice security and many other features required for a successful voice deployment.

Aruba customers have the freedom to choose from a variety of Wi-Fi single-mode or dual-mode handsets to fit performance, coverage and cost requirements.

Voice over Wi-Fi deployments are complementary to enterprise VoIP projects. Convergence of voice and data services over the LAN can be easily extended to the WLAN, providing the added benefit of mobility.

Aruba’s follow-me connectivity and application continuity services for voice have been hailed by independent testers as offering the best call quality, fastest handover, highest call capacity and most effective call admissions control in the WLAN industry.

Management features include the ability to monitor and track call quality in R-value or MOS score and to display call detail records for auditing purposes. Tools for remote troubleshooting are also provided.

Aruba’s call capacity per-AP has been hailed as the best in the industry, and a number of combined features enable an advanced call admissions control capability that works with explicit accuracy on all standard clients.

Battery life is a key requirement, especially for emerging dual-mode cellular/Wi-Fi phones, and Aruba implements all relevant standards (e.g., U-APSD) while incorporating client-independent features such as proxy-ARP that prevent unnecessary traffic from reaching the phone.