Tap Into Your LANs Wireless Power

Wireless LANs or WLANs have been on the scene in many businesses for years. However, today they are not just being looked at for data transmission or "hot spots" in lobby or cafeteria areas. They're currently positioned to carry voice throughout a business. The need for mobility is continuing to grow. Some vertical markets, particularly healthcare, are seeing the need to grow a mobile workforce much quicker than a professional services office such as a CPA or law firm.

The way that the in-building cellular providers such as Spectralink and many other OEM versions of the same technology are able to connect the WLAN to the voice world is through wireless handsets that are equipped to talk to the 802.11 access points which are common in the data world. The wireless voice handsets still have their main control box and they still need to be programmed into the telephone system, but the building antenna coverage can sometimes be controlled by the existing WLAN infrastructure. There are some things that a company must know prior to embarking on such a project.

Coverage is crucial
WLAN access points (APs) for data may not need to be positioned in the same locations as the access points to carry voice, hereby referred to as VoWLAN. For this reason, coverage needs to be investigated prior to implementation of a shared voice and data WLAN infrastructure. Lately, business owners have tried to accommodate the mobile worker or visitor by providing controlled internet access just in commons areas. However, a voice user will want to walk throughout the entire facility and enjoy the same comfort as they would in a cellular call. By this, the wireless handset user will want to stay connected to their caller while roaming the entire facility. In order for this to happen the APs must be positioned appropriately. One must also consider those heavy traffic areas such as the lobby or cafeteria. If coverage is not managed properly a voice user could get a busy signal in the middle of a conversation because the AP they have just switched to is overloaded and cannot accept the transmission. Not exactly the type of customer service we wish to share with our clientele.

Quality of Service
Since the wireless handset is using the 802.11 AP network this is considering VoIP or IP Telephony transmission of voice. In the world of IP telephony Quality of Service (QoS) is a non-negotiable item. It must be present within the network design in order for the user to have confidence in the system. If QoS is not present then delays in voice transmission, echo and other such phenomenon will be present and will disrupt the confidence of the user, rendering the system useless. There are several 802.11 standards. The company choosing to utilize voice devices over the WLAN should take care to implement solutions where the vendor can support the 802.11e standard, which takes into account the Quality of Service requirement in the AP network.

Features sets of phones
Some of wireless phone users double as desk phone users. They have their full featured phone at the desk and pull their wireless phone to be mobile. However, the desk user gets used to the transfer key, the hold key, the other feature keys on their desk and now they are in the field with just a on/off switch and a small LCD panel. For some

users this may be acceptable, but for most it will be frustrating. In order to effectively migrate workers back and forth between wireless and desk phone operation, it is wise to assess the feature functionality of the wireless handset. Many manufacturers provide sets that have programmable feature keys to minimize the difference between a desk set and a wireless phone. However, be cautious to limit the type of user to the wireless handset. This phone will not function well for most operator stations, call center agents and so on. The nurse in the field, however, whose limited use of the phone may be to receive a call from a doctor or other care agency or the need to make calls in the same manner will not likely care that there is no feature button for X,Y, or Z feature. They will simply require rock solid transmission and a light weight instrument to carry on their uniform, or better yet, around their neck on a lanyard.

Weight and Size is important
In many vertical markets where there is a high degree of activity surrounding users of WLAN handsets, the weight and shape of the handset can play a strong factor. Some phones are not only large in size but very heavy and these two factors can play a role in the life expectancy of the handset. They are prone to breakage when dropped from short distances and require costly repairs and extended downtime. It is best to have your vendor bring a phone for you to try on prior to investing in the technology. Each organization is different. A manufacturing company or health care company where workers in the field are very mobile may require a different handset design than a retail establishment.

Is the cost worth it?
As you look at the feasibility of the technology, one also must look at the cost. While it may be expensive to initially deploy such a voice system ($700-$800 per handset plus infrastructure costs), the payback can be very apparent. The ability for a nurse to speak to a doctor without leaving a patient's bedside may be invaluable to the healthcare organization. The ability to track inventory without multiple trips back to the computer desk or kiosk may be the difference between a $1,000,000 sale or a "thank you very much, I will try back later" call. Benefits of a VoWLAN or other mobile technologies can be hard to measure in hard payback dollars. However, speaking to your staff and your customers about their current frustrations may prove very valuable in assessing the situation and the payback properly. If you talk to two staff members who indicate that if they could have responded to a client right away a sale either would not have been lost or profit increased then you are on your way to a hard dollar payback. However, if you speak to your staff members and there are no frustrations or wishes for better access, then you have to ask yourself why you are investing money when there is no benefit to be gained.

Just remember that the best technology in the world will be the worst technology for your organization if there is no need to deploy it. Technology for the sake of technology never makes business sense or cents!