

## Wireless Network Trends

The acceptance and subsequent migration to wireless networks is for many users, their primary connection to the local area network.

For Colleges and University each year receive a more tech savvy class arrives on campus with notebooks, PCs and numerous Wi-Fi enabled devices. An Ivy League university reported this past year that following a new WLAN build-out over the summer vacation, the first semester of the new academic year saw an overall traffic increase of 25%. But traffic on wired LAN ports decreased by 10% and is continuing to decline, a trend that is set to continue.

As more wireless access devices are deployed it follows logic that an evaluation and survey of the wired LAN take place. In identifying unused wired LAN ports, servers can be maximized and unused servers taken out of service. Reducing the server farm will reduce power consumption and air conditioning costs while still maintaining the multifaceted connectivity for end users.

Most enterprises today have some form of Wi-Fi coverage, but many do not yet have a pervasive WLAN although the technology is now mature, terminal equipment is deployed, performance rivals 10/100 Ethernet and IT security and management issues have been

overcome. The strategy above to consolidate and retire unused LAN switches can provide the budgetary lever to justify investing in pervasive Wi-Fi coverage over part or all of the organization.

But deploying a WLAN requires resources, and any discussion of 'right-sizing', balancing the LAN and WLAN, would not be complete without a discussion of those costs.

WLANs consume a number of edge ports. Each access point requires a port, but whereas a wired LAN will provision one or more ports per workstation, each access point typically covers 15 to 25 user workstations.

Access points require power. This can be PoE from the closet switch, or from a local power supply. Most access points are considered Class 3 devices and consume 8-16W each, depending on the technology and the number of radios.

Various installation methods present differing degrees of complexity. The most challenging would be mounting in the ceiling space, while many 'carpeted offices' find a desktop or bookshelf mounting is sufficient. But because there are far fewer access points than wired Ethernet outlets, the cost of cabling and mounting WLAN access points is much less than the equivalent wired edge network.

