

Wavelink Offers Seven Steps for Successful 802.11ac Deployment

February 10, 2014 – Now that 802.11ac products are on the market organisations need to understand what is involved in deploying and migrating to an 802.11ac solution. Planning for deployment of an 802.11ac solution must consider budget and possible network redesign.

Ilan Rubin, managing director, Wavelink, said, “The exploding demand for wireless throughput will be best met by deploying 802.11ac. Planning for 802.11ac is a great investment and organisations need to ensure they have a network that will meet the demands of an increasingly wireless world.”

Seven major steps to take when planning an 802.11ac network installation

1. Analyse the need for possible 1 Gbps Ethernet. Most 802.11ac access points (APs) will accommodate two 1-Gbps Ethernet connections to properly service the two 802.11ac radios that support 1.3 Gbps data rates. To maximise the benefit from the potential of the new equipment, matching backhaul services may be required.

2. Validate availability of proper Power over Ethernet (PoE) services. Some 802.11ac APs may require an 802.3at level power source and may require upgrading a switch or providing a power injector.

3. Ensure hardwired network high data rate support. To ensure reliability within the wired network, Cat6 or Cat6a cabling should be considered where the cabling has been rated at a gigabit service level. Cabling of lower quality may compromise the signalling quality and lower the resulting data rates.

4. Plan for 80 MHz wide channels. This will ensure that devices have access to the maximum data rate services associated with their configuration. Additionally, such a design will minimise adjacent channel interference (ACI) that must still be addressed with smaller channel options. With such an approach, all 802.11a, 802.11n and 802.11ac devices will operate seamlessly at maximum throughput. This is possible because of the dynamic channel management capability to interleave traffic from devices configured for different widths of channels.

5. Deploy in Virtual Cell Mode. In this mode, maximum bandwidth coverage can be achieved throughout any facility. Support for Virtual Hold Technology (VHT) does not have to be isolated to large gathering rooms, lecture halls or arenas but can be pervasively deployed throughout the facility.

6. Design network to maximise capability. Leveraging channel layering capabilities can double the capacity of a dual-radio access point by provisioning a second 5 GHz channel in parallel with the primary channel. Additional capacity may be added through installing more APs.

7. Leverage Context Aware Layers. This feature provides the ability to bind an application class or function to a specific wireless layer to maximise network performance, security and control for that specific set of application functions.

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