Unified wired-WLAN solution for enterprises

Executive summary

HP is introducing a new unified wired and wireless enterprise solution that delivers industry-leading scalability, reliability, and throughput for large enterprise campuses. This new solution includes a unified wired and wireless switch for branch offices and highly scalable unified wired-WLAN modules for the HP 10500 and 7500 modular switches, delivering unified access, security, and QoS with single-pane-of-glass management for wired and wireless networks.

The solution complements the existing HP MSM portfolio, which is designed for small to mid-sized campuses. MSM access points will be supported on the new unified wired and wireless enterprise solution, while HP Intelligent Management Center (IMC) will continue to provide single-pane-of-glass management for both the mid-sized and large enterprise solution.

HP scalable unified wired-WLAN module for HP 10500 and 7500 switches

The HP 10500/7500 20G Unified Wired-WLAN Module provides a fully integrated solution that delivers increased scalability and resiliency, rich wireless services, and robust data processing capabilities. The new module provides refined user control and management, comprehensive RF management and security, fast roaming, robust QoS and IPv4/IPv6 support, and powerful WLAN access control capabilities. Working together with HP wireless access points, the HP 10500/7500 20G Unified Wired-WLAN Module can be easily deployed on Layer 2 or Layer 3 networks without affecting existing configurations.

Designed for the WLAN access of large enterprise networks, the HP 10500/7500 20G Unified Wired-WLAN Module provides an industry-leading WLAN solution that lowers CAPEX by 54 percent while delivering twice the client scalability when compared to competing solutions.

Unified wired-WLAN solution deployment

Unified wired and wireless switches for branch offices

The HP 830 Unified Wired-WLAN Switch Series integrates both wireless and Gigabit Ethernet switch functions. The switch series provides 1,000 Mb/s Ethernet ports, each supporting a maximum power of 30 W PoE+ and IEEE 802.11a/b/g/n access points, while delivering unified wired and wireless access control functions. The HP 830 24-Port PoE+ Unified Wired-WLAN Switch provides two 10GbE slots on the rear panel to relieve transmission bottlenecks at the core of WLAN networks.

The HP 830 Unified Wired-WLAN Switch Series is ideally suited for unified access at the small- and medium-sized branches of large enterprise networks. When deployed in conjunction with the new HP 10500/7500 20G Unified Wired-WLAN Module in a main campus, the solution provides core-to-edge unified access; branch office client survivability; and consistent user security, policy, and QoS.

The unified switch series reduces hardware and operating costs, and delivers investment protection with a lifetime hardware warranty that includes next-business-day advance replacement and firmware upgrades for as long as you own the product.

1 HP competitive analysis, February 2013
End-to-end QoS

The HP unified wired and wireless enterprise solution implements IPv6 QoS, as well as the DiffServ QoS standard, which includes traffic classification and traffic policing, and completely implements six groups of services—EF, AF1 through AF4, and BE. These advanced QoS features help ensure that users have an optimal experience, even when using time-sensitive voice, video, and other rich-media applications.

Latest wireless standards

The solution delivers six times the wireless access capacity when used with IEEE 802.11n-based access points compared to traditional IEEE 802.11 a/b/g networks, resulting in expanded coverage and more efficient support for wireless multimedia applications.

The solution supports HP MSM430, MSM460, MSM466, MSM466-R, and WA2620 access points, and automatically discovers access points and applies updates if necessary.

IEEE 802.1X and portal authentication

IEEE 802.1X and RADIUS network logins control port-based authentication and authorization. A Choice of IEEE 802.11i, WPA2, or WPA locks out unauthorized wireless access by authenticating users prior to granting network access. Robust Advanced Encryption Standard (AES) or Temporal Key Integrity Protocol (TKIP) encryption secures the data integrity of wireless traffic.

Web-based authentication provides a browser-based environment to authenticate clients that do not support the IEEE 802.1X supplicant.

Wired and wireless security

Integrated wired and wireless Endpoint Admission Defense (EAD) helps ensure that only wireless clients who comply with mandated enterprise security policies can access the network, reducing threat levels from infected wireless clients and improving the overall security of the wireless network.

Wi-Fi Clear Connect RF optimization and integrated IDS

Wi-Fi Clear Connect uses advanced Radio Resource Management (RRM) to improve WLAN performance and reliability, detect wireless threats, and simplify management.

RRM automatically assigns and tunes transmit power levels and RF channels on access points to improve the system-wide performance and reliability of your WLAN and adjust coverage to mitigate against dead spots and access point failures.

Intelligent client load balancing analyzes the locations of wireless clients in real time, and automatically balances the client load to help ensure high-quality client throughput.

Integrated IDS allows access points to use time slicing to simultaneously provide client services and act as a security sensor to detect and locate flood, spoofing, and weak IV attacks and unknown and rogue devices. Flexible configuration options allow access points to be deployed in either hybrid or dedicated sensor mode.

Scalability

Pay-as-you-grow license upgrades allow you to increase support for additional access points without the need to buy additional costly hardware and use additional valuable space in a chassis.

Availability

HP 10500/7500 20G Wired–WLAN Module and HP 830 Unified Wired–WLAN Switch Series will be available May 2013. Pricing is not yet available.