HP Mobility Solutions

Unifying wired and wireless access best-in-class, optimized architecture, performance, and TCO

Solution brief

Secure, standards-based unified wired and wireless integration

CIOs must guarantee service levels to the organization, support the business to innovate and deliver new products and services, and stay within constrained IT budgets. HP networking can help to reduce risk, reduce time to deliver innovation, and beat the competition. Businesses are providing network access to a multitude of WLAN devices and applications. An increasing portion of the success of these businesses depends upon integrated networks and applications.

Network availability and resiliency are key to alleviating serious disruptions to employee productivity and operational continuity. In addition, security threats can cause network downtime and have a devastating impact on your organization.

One of the biggest operational challenges is the lack of a unified network, where network hardware, applications, and management tools are integrated across the network for a seamless user experience.

In today's businesses, there are possibly one of two WLAN networking models deployed—the unified model and the overlay. Many WLAN pure-play vendors came into this market when Wi-Fi standards became available for commercial use. Unlike HP networking, which can offer a choice of networking models and a migration path from the overlay to unified model, these WLAN pure-play vendors can only offer WLAN overlay solutions and do not have the ability to provide a complete unified wired and wireless solution.

- In a Yankee Group focus report dated July 2009, it was reported that since "all WLAN access points must connect to wired Ethernet at some point, many enterprises will be skeptical about WLAN pure-play vendors in the access layer and feel more comfortable with a WLAN technology that is 'backed' by the same vendor's LAN switches."

Unified wired and wireless

WLAN-only vendors do not have the end-to-end integrated wired and wireless offerings of HP networking, nor do they have the service and management capability to address customers' complete networking needs. HP networking offers many advanced features to monitor and secure your unified networks:

- Industry-standard sFlow & LLDP, which provides end-to-end management of your wireless endpoints
- Integration of HP ProCurve Identity Driven Manager (IDM) and Network Immunity Manager (NIM), which provides endpoint integrity and policy enforcement
- Network Access Protection (NAP) and Network Access Control (NAC) for tighter security and policy enforcement throughout the network

HP networking provides both wired and wireless solutions and services that are aligned, utilizing one management platform that is completely integrated, making the management and security of your network pain-free and seamless.

HP ProCurve Mobility APs support both centralized and distributed application deployment on the same AP—unlike some competitors.

Best-in-class security

Deploying and securing WLANs is one of the most important challenges IT administrators face. By utilizing HP ProCurve Mobility Controllers, which have exceptional security capabilities through policy management of authentication, encryption, access control, content filtering, and traffic tunneling, your network is protected. And should you need even higher security levels, the HP IDS/IPS solution offers full-time perimeter scanning and threat mitigation with compliance reporting to meet heightened security requirements for PCI, HIPAA, SOX, and DOD 1800.2 compliance.

Network refresh, wireless overlay, and integration into a single network

Do you have the challenge of integrating wireless solutions within your existing network? Whether it's adding a new WLAN network or refreshing an existing one, adding wireless connectivity should not result in disjointed management tools. Non-cohesive networks increase your TCO and can negatively impact your user's application experience. It can affect how efficiently your applications run and can negatively impact overall network performance and operational costs.

HP networking understands these issues and provides flexibility and choice in meeting your specific needs by providing mobility solutions that can be easily integrated in your network. Our mobility solutions can be an overlay to an existing network or integrated with an HP LAN switching network, so you can realize all the benefits of a fully integrated network, including unified network and security management.

Most efficient highly optimized WLAN architecture
HP networking delivers a groundbreaking, highly efficient optimized architecture. With all mobility controllers running firmware v5.4 or higher, the Mobility Traffic Manager allows clients to always stay connected to their "home IP network segment," regardless of where the connection occurs, therefore providing a consistent user experience.

IT managers have granular flexibility to choose how network traffic is forwarded (distributed or centralized). The HP mobility optimized architecture supports both a centralized and a distributed architecture on the same access point,* providing more flexibility for different types of application traffic.

Examples of centralized or distributed deployment applications:
- Centralized: Within the Hospitality market—for PCI (Payment Card Industry). This security standard requires traffic to go back to a centralized wireless controller at the core.
- Distributed: Where VoIP (voice) traffic is used, voice traffic does not need to go back to a centralized wireless controller at the core, therefore eliminating voice latency or jitter.
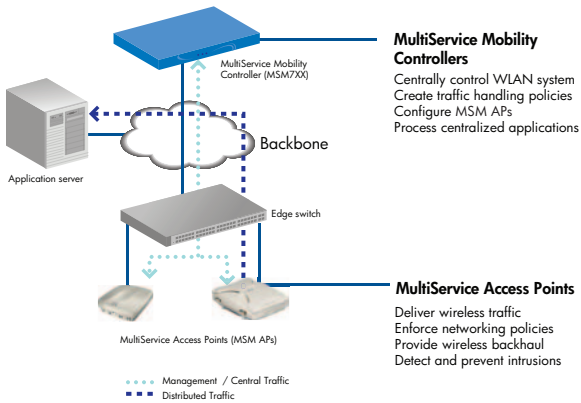
Unified solution features

- IT traffic management—HP Mobility Traffic Manager provides the IT administrator with flexible control over how wireless traffic is distributed in the network based on your application needs (in all wireless controllers v5.4 firmware or above)
- Simple deployment strategy—access point firmware updates/profiles are automatically configured
- Optimized architecture provides an upgrade path from legacy a/b/g to 802.11n without adding any additional controller costs
- Unified management with sFlow and LLDP—lets you monitor all LAN/WLAN devices and provides an integrated monitoring management system
- Ease of deployment and ease of use through single policy creation
- Common management tools and applications work across the wired and wireless infrastructure, which reduces the need to train operational staff
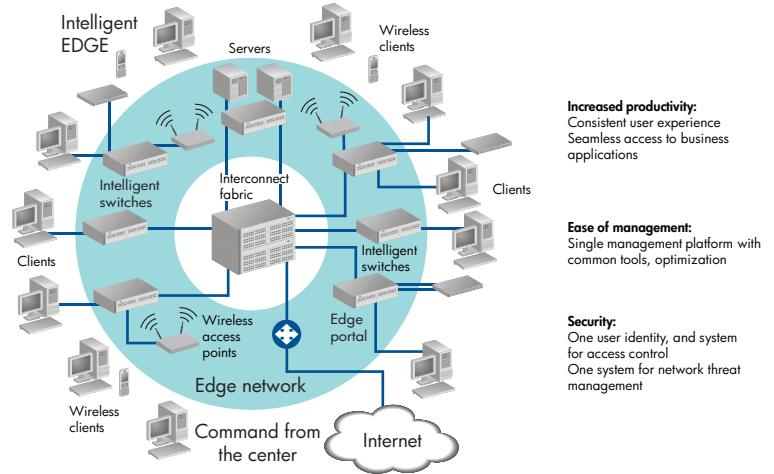
* Applies to the MSM422 and MSM410 Access Points.

Highly efficient WLAN architecture—one unified and cohesive network

Optimized Architecture

One unified network:
Wired and wireless integration

MultiService Mobility Controllers

Centrally control WLAN system
Create traffic handling policies
Configure MSM APs
Process centralized applications

MultiService Mobility Controller (MSM7XX)

Application server

Backbone

Edge switch

MultiService Access Points

Deliver wireless traffic
Enforce networking policies
Provide wireless backhaul
Detect and prevent intrusions

MultiService Access Points (MSM APs)

Management / Central Traffic
Distributed Traffic

Intelligent EDGE

Servers

Wireless clients

Intelligent switches

Interconnect fabric

Clients

Clients

Wireless access points

Edge portal

Edge network

Intelligent switches

Wireless clients

Command from the center

Internet

Increased productivity:
Consistent user experience
Seamless access to business applications

Ease of management:
Single management platform with common tools, optimization

Security:
One user identity, and system for access control
One system for network threat management

Unified solution benefits

Unified networks can easily adapt to changing business needs. This approach provides customers with:

- Consistent user experience for applications across the WLAN/LAN
- Ease of management with a single-pane-of-glass view of the entire network
- Single and consistent security and quality of service (QoS) policy creation
- Lower total cost of ownership, no need for different training or specialized skills, fewer vendors to manage, and easier service management

Solution components

- HP ProCurve MultiService Controller Series
  - Appliance—Mobility and Access Controllers
  - Blade—Mobility Controller fits in the HP ProCurve 5400zl and 8200zl series switches

- HP ProCurve MultiService Access Point Series
  - Single-radio IEEE 802.11n or 802.11a/b/g; dual-radio 802.11n or a/b/g + 802.11a/b/g
  - Single-, dual-, or triple-radio 802.11a/b/g
  - Indoor and outdoor
- HP ProCurve MultiService access device
  - Single-radio 802.11b/g Access Point and integrated 4 Ethernet ports + uplink
- HP ProCurve Mobility Integrated Services Access Point Series
  - Single-radio 802.11a/b/g
- HP ProCurve Mobility Access Point Series
  - Entry-level access point
  - Single-radio 802.11a/b/g
- HP ProCurve Client Bridge Series—allows wired devices to connect to a wireless network
  - Single-radio 802.11a/b/g
- HP ProCurve Mobility Manager
- HP ProCurve Mobility Security IDS/IPS Services—detects any 802.11 device that joins the wireless network
  - ISD/IPS Controller
- HP ProCurve RF Planner—provides wireless network design guidance and identifies the most critical locations for placement of access points for optimum wireless coverage

Why HP networking?

HP Mobility Solutions provide a rich set of functionality to help drive productivity, enhance collaboration, and streamline processes. HP networking wireless solutions offer industry-leading choices, such as:

- **Optimized architecture**—provides granular control of your network applications traffic flow, increasing network performance, reducing bottlenecks, and optimizing users' experiences in accessing network applications

- **Reliability—and backed by the industry's leading lifetime warranty**. Please see **www.hp.com/networking/warranty** for specific warranty information.

- **Unified networks**—single management platform; network integration of wired and WLAN solutions

- **Adaptive EDGE Architecture**—provides auto channel and auto power select, load-balancing traffic between VLANs and groups of VLANs

- **Integrated security**—HP networking's security solutions include our award-winning intrusion detection and prevention system (IDS/IPS), along with Identity Driven Manager and Network Immunity Manager

- **Software and tools**—HP ProCurve Manager (PCM), PCM+, Mobility Manager, RF Manager, Guest Management Software, IDM, NIM, and ProCurve ONE Alliance software that works with our family of mobility solutions

- **Performance optimization**—by distributing intelligence across the WLAN, the HP Mobility Solution provides more optimum backbone network bandwidth than competing WLANs

- **Simplified management**—integrated, easy-to-use management features reduce the time and complexity of planning, deploying, and managing both wired and wireless LANs

For more information

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