

BROCADE MOBILITY 6511 WALLPLATE ACCESS POINT

CAMPUS NETWORK

HIGHLIGHTS

- Provides a wireless 802.11n wallplate dual-band Access Point (AP) for fast, secure roaming and Quality of Service (QoS) for multimedia applications
- Installs in minutes, using existing 802.3af Ethernet CAT 5/6 cabling
- Provides easy installation in any standard telecom wall box
- Increases capacity by leveraging a three-port Fast Ethernet switch module
- Provides enterprise-class security with 24×7 network protection and dedicated IPS/IDS for instant identification and reporting of unauthorized users
- Delivers increased functionality through a single device, helping to generate a fast Return on Investment (ROI)
- Reduces complexity through unified wired/wireless network management

The Brocade One™ strategy helps simplify networking infrastructures through innovative technologies and solutions. The Brocade Mobility Wireless LAN (WLAN) solution supports this strategy by providing a single high-performance, highly available network that has the built-in intelligence to identify different traffic types and handle them appropriately.

Wired and Wireless 802.11n Wallplate Access Point Delivers Speed, Security, and Resiliency

Conventional Access Points (APs) require careful planning, in addition to pulling cable and installing ceiling brackets. Sometimes organizations need wireless connectivity installed in minutes, not hours. The Brocade® Mobility 6511 Wallplate Access Point (AP) integrates a dual-band 802.11a/b/g/n AP and switched Fast Ethernet connectivity into a sleek design that is fast and easy to deploy on any wall surface or structured wiring telecom box using the existing CAT 5/6 cabling.

The Brocade Mobility 6511 AP is ideal for dormitories, patient rooms, guest rooms, and other multi-dwelling units where firewalls, metal doors, mirrors, plumbing, and wall tiles obstruct hallway Wi-Fi signals. It features a snap-in port for any keystone-style connector—such as RJ11 or TV coax—so multiple services can be supported on a single integrated AP. Guest rooms often require additional Ethernet ports for voice service, device monitoring, or even guest wireline. A snap-on three-port wired Fast Ethernet expansion module dramatically reduces deployment costs by providing multiple wired Ethernet switch ports while eliminating multiple CAT 5/6 cables to a single room.

The Brocade Mobility 6511 AP provides enterprises and branch offices with key functions, including 802.1X and firewall capabilities on wireless and wired ports, intrusion prevention, fast roaming, and Quality of Service (QoS) traffic handling.

NON-BLOCKING, HIGH-PERFORMANCE 802.11n ARCHITECTURE

Fully compliant with 802.11n Dynamic Frequency Selection (DFS), the Brocade Mobility 6511 AP delivers speeds up to 600 Mbps—six times the bandwidth of an 802.11a/g AP. An adaptive architecture enables two modes of operation without changing the firmware—as a standalone AP



BROCADE

or as a wireless controller-adopted AP for centralized management. Plug-and-play deployment over Layer 2 and Layer 3 networks is supported with automatic discovery of the controllers by remotely located APs. Standalone or controller-adopted APs forward traffic directly, eliminating controller bottlenecks or single points of failure.

ENTERPRISE-CLASS SECURITY

Only authorized 802.1X users can access the network, which protects the network perimeter and valuable resources. The Brocade Mobility 6511 AP stateful firewall supports key standards-based security protocols to help ensure enterprise-level protection for wired and wireless network infrastructures—as well as for data in transmission over WLANs.

In addition, the Brocade Mobility 6511 AP is designed to function as a wireless Intrusion Prevention System (IPS)/Intrusion Detection System (IDS) sensor, enabling automatic 24×7 monitoring of wireless networks. For advanced security, organizations can also add Role-Based Access Control (RBAC) and the Motorola AirDefense® wireless IPS for Brocade Mobility.

FAST ROAMING AND QUALITY OF SERVICE SUPPORT

The Brocade Mobility 6511 AP supports fast, secure roaming in Layer 2 and Layer 3 deployments. In addition, the network optimizes mobile performance with load

balancing, preemptive roaming, and rate scaling. The Brocade Mobility 6511 AP provides QoS handling and processing right in the AP; it recognizes the multimedia traffic and ensures optimal paths and QoS.

By enabling video processing in the AP, a simulcast of a multicast session can scale to more than 100 clients per AP. This, in addition to being able to create Virtual LANs (VLANs) within the architecture, significantly reduces the need to broadcast traffic to non-participants, allowing fine-tuning and optimization of the network.

MULTIPURPOSE FLEXIBILITY, FAST ROI

The Brocade Mobility 6511 AP provides multifunction, multipurpose adaptability to help generate fast ROI. It can be deployed as a standalone or centrally managed device to deliver wired and wireless voice and data services, and wireless IPS sensor functionality, in a single device—reducing capital and operational expenditures.

UNIFIED WIRED/WIRELESS NETWORK MANAGEMENT

To reduce complexity and time spent managing these environments, the easy-to-use Brocade Network Advisor discovers, manages, and deploys configurations to groups of IP devices. By using the Brocade Network Advisor Device Configuration Manager tool, organizations can configure VLANs within the network, manage wireless AP realms, group WLAN switches into

domains for Layer 3 mobility support, or execute Command Line Interface (CLI) commands on specific devices or groups of devices. Brocade Network Advisor centralizes management of the entire family of Brocade Mobility wireless products, including Brocade Mobility 6511 APs and Brocade Mobility wireless controllers.

BROCADE GLOBAL SERVICES

Brocade Global Services offers comprehensive Essential Support for Brocade enterprise WLAN products—including hardware and 24×7 software support, software updates, and new releases—to optimize network performance.

CLOUD-OPTIMIZED NETWORK ACQUISITION

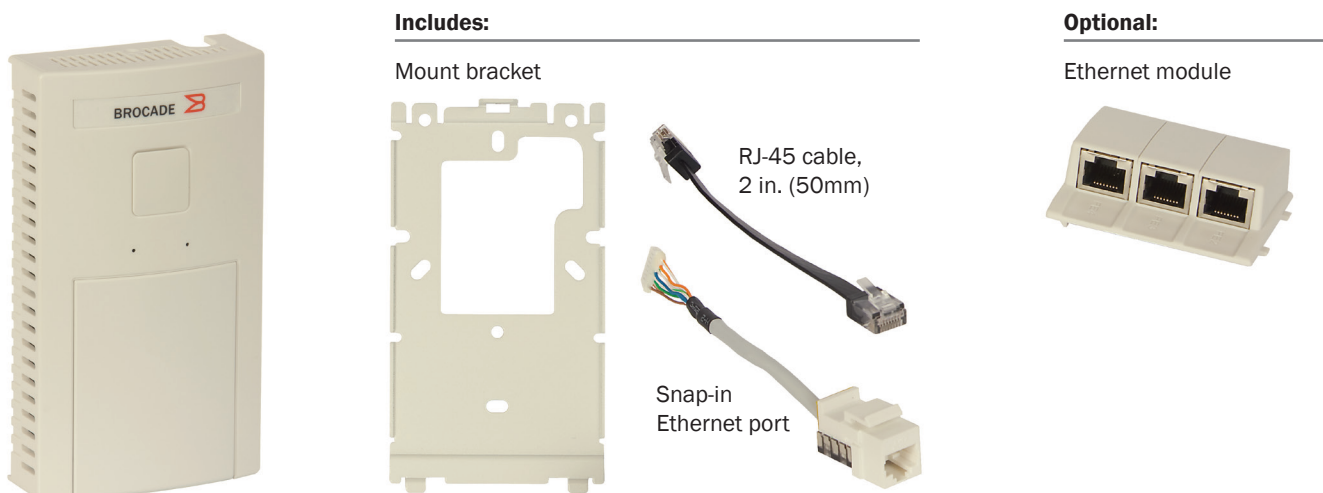
Brocade helps organizations easily address their information technology requirements by offering flexible network acquisition and support alternatives to meet their financial needs. Organizations can select from purchase, lease, and Brocade Network Subscription options to align network acquisition with their unique capital requirements and risk profiles.

MAXIMIZING INVESTMENTS

To help optimize technology investments, Brocade and its partners offer complete solutions that include professional services, technical support, and education. For more information, contact a Brocade sales partner or visit www.brocade.com.

Figure 1.

The Brocade Mobility 6511 Wallplate AP and available accessories.



BROCADE MOBILITY 6511 AP SPECIFICATIONS

Performance and supported configurations		Management	
Radio options	Single radio 802.11a/n or 802.11b/g/n support with MIMO	Configuration	Flash-based Web User Interface (UI), human-readable configuration file import/export, CLI (RS-232 or Telnet), SSH, HTTP/S, MIB, programmable SNMP v1/v2c/v3 trap support
Band	2.4 GHz; or 5.2 GHz (actual operating frequencies depend on regulatory rules and certification agency)	Statistics	LAN, wireless, and associated stations (accessible via Web UI)
Mode operation	Access Point (AP)	Software/firmware updates	FTP or TFTP, remote auto available
WLAN support	16 configurable WLANs with up to 4095 VLANs per AP	Deployment	
BSS support	8 BSSIDs, 16 SSIDs	Options	Full-featured AP for local or remote edge deployments is centrally managed by WLAN controller Plug-and-play deployment over Layer 2/3 networks
Powered clients	CAM- and PSP-powered clients supported	Physical characteristics	
Concurrent clients	Up to 127 client associations	Dimensions	5.00 in. × 2.75 in. × 1.10 in. (12.700 cm × 6.985 cm × 2.900 cm)
Traffic management and Quality of Service (QoS)		Weight	0.5 lb with mounting plate (0.2 kg)
QoS	Voice prioritization; WMM-power save with TSPEC Admission Control; WMM U-APSD; Layer 1–4 packet classification; 802.1p; 802.11e; 802.11k; DiffServ/TOS, SVP, SIP CAC	Housing	Plastic and metal
Rate limiting	Broadcast/multicast transmit rate control, client rate limiting, per-radio client limit	Available mounting configuration	Universal mounting bracket for worldwide telecom plates; mounting options include over a telecom wallplate or a flush surface mount
VLAN support	16 VLANs support per AP, 802.1Q VLAN trunking and tagging, dynamic user-based VLANs using EAP authentication	LED indicators	Two single-color status LEDs; power, error, packets, operating frequency
Client load balancing	Neighbor APs share client load by client count or traffic load	Ethernet ports	One to four switched Fast Ethernet ports, auto-sensing 10/100 Base-T Ethernet; 802.af on the uplink LAN port, RJ-45
Wireless security		Environmental specifications	
Wireless IPS/IDS	Rogue detection, radio provides dedicated full-time 24×7 scanning of 2.4 GHz and 5.0 GHz bands for air monitoring, wireless IPS, onboard IDS	Temperature	Operating: 32 °F to 104 °F (0 °C to 40 °C) Non-operating: –40 °F to 158 °F (–40 °C to 85 °C)
Authentication	ACLs; Pre-Shared Keys (PSK); 802.1X/EAP – Transport Layer Security (TLS); Tunnelled Transport Layer Security (TTLS); Protected EAP (PEAP); EAP-SIM; local authentication database, AAA Server; support for RADIUS, LDAP, and ActiveDirectory	Humidity	Operating: 5% to 95% relative humidity non-condensing Non-operating: 95% relative humidity non-condensing
Encryption	WEP 40/128 (RC4); WPA-TKIP; WPA2-CCMP (AES); 802.11i WPA2-TKIP; Multi-Cipher support	Altitude	Operating: 8000 ft. (2438 m) at 82 °F (28 °C) Non-operating: 30,000 ft. (4572 m) at 53 °F (12 °C)
Guest access	Built-in captive portal, customizable login/welcome pages, URL redirection, support for external authentication and billing systems: client-client transmission disallow	Electrostatic discharge	+/- 15 kV air, +/- 8 kV contact at 50% relative humidity
IPSec VPN	Supports DES, 3DES, AES-128, and AES-256 encryption; supports site-to-site Virtual Private Network (VPN) capabilities	Power specifications	
Stateful firewall	Stateful Layer 3 packet inspection; stateful Layer 2–7 wireless firewall	Power	AP+1 LAN port is approximately 5.5 W typical AP+4 LAN ports is approximately 8 W
Networking services		Operating current and voltage	36 to 57 VDC Not to exceed 250 mA at 48 VDC
Layer 2 and Layer 3	802.1D-1999 Ethernet bridging; 802.11-802.3 bridging; 802.1Q VLAN trunking and tagging; DHCP server/client, BOOTP client, Dynamic DNS (DynDNS), PPPoE, NAT, LLDP, IP Filtering, Content Filtering (files or URL extensions, HTTP, SMTP, and FTP requests), NAT, ARP/Proxy ARP	Integrated Power over Ethernet (PoE)	802.3af-compliant uplink LAN port
		Radio specifications	
		Wireless medium	Direct Sequence Spread Spectrum (DSSS), Orthogonal Frequency Division Multiplexing (OFDM), and 1×2 or 2×2 spatial multiplexing (MIMO) with two spatial streams
		Network standards	802.11a, 802.11b, 802.11g, 802.11n, 802.11d, 802.11h, and 802.11i WPA2, WMM, and WMM-UAPSD

BROCADE MOBILITY 6511 AP SPECIFICATIONS (CONTINUED)

Radio specifications (continued)	
Channelization	20 MHz and 40 MHz channels
Packet aggregation	AMSDU, AMPDU
Inter-frame spacing	Reduced
MIMO power save	Static and dynamic
Data rates supported	802.11b/g: 1, 2, 5.5, 11 Mbps 802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps 802.11a: 6, 9, 12, 18, 24, 36, 48, 54 Mbps 802.11n: MCS0 to MSC15, HT20 and HT40
Operating channels	All channels from 5180 to 5825 MHz, 802.11 DFS Channels 1 to 13 (2412 to 2472 MHz) Actual operating frequencies depend on regulations
Operating frequencies	2.4 GHz: 2400 to 2483.5 MHz 5.2 GHz: 5150 to 5250 MHz; 5725 to 5850 MHz Actual operating frequencies depend on national regulatory limits
Maximum available transmit power per antenna	2.4 GHz: +24 dBm 5.2 GHz: +22 dBm
Maximum available transmit power per AP	6 dBm to 24 dBm
Transmit power adjustment	1 dB increments Actual Tx power dependent on national regulatory limits
Antenna configuration	2×2 MIMO (transmit and receive on two antennas)
Regulatory information	
Safety specifications	UL EU EN 60950-1 2nd Ed., ANZ C-Tick, UL 2043; EU RoHS Directive 2002/95/EC; CE, IC, FCC
EMC specifications	FCC 15.247, 15.407/EN300 328, EN 301 893; FCC Part 15 Subpart B, EN 55022: 2006 + A1: 2007, ICES - 003 (Class B) EN 55024: 1998 + A1: 2001 + A2: 2003
Radio approvals	FCC 15.247, 15.407/EN 300 328, EN 301 893; UL EU ENH 60950-1 second edition, ANZ C-tick, UL 2043; FCC Part 15 Subpart B, EN 55022: 2006 + A1: 2007, ICES-003 (Class B) EN 55024: 1998 + A1:2001 + A2:2003; EU RoHS Directive 2002/95/EC; CE, IC, FCC

Corporate Headquarters

San Jose, CA USA
T: +1-408-333-8000
info@brocade.com

European Headquarters

Geneva, Switzerland
T: +41-22-799-56-40
emea-info@brocade.com

Asia Pacific Headquarters

Singapore
T: +65-6538-4700
apac-info@brocade.com

© 2011 Brocade Communications Systems, Inc. All Rights Reserved. 09/11 GA-DS-1623-00

Brocade, the B-wing symbol, DCX, Fabric OS, and SAN Health are registered trademarks, and Brocade Assurance, Brocade NET Health, Brocade One, CloudPlex, MLX, VCS, VDX, and When the Mission Is Critical, the Network Is Brocade are trademarks of Brocade Communications Systems, Inc., in the United States and/or in other countries. Other brands, products, or service names mentioned are or may be trademarks or service marks of their respective owners.

Notice: This document is for informational purposes only and does not set forth any warranty, expressed or implied, concerning any equipment, equipment feature, or service offered or to be offered by Brocade. Brocade reserves the right to make changes to this document at any time, without notice, and assumes no responsibility for its use. This informational document describes features that may not be currently available. Contact a Brocade sales office for information on feature and product availability. Export of technical data contained in this document may require an export license from the United States government.



BROCADE