

BROCADE MOBILITY 7131-GR ACCESS POINT



CAMPUS NETWORK

FIPS 140-2 Level 2-Certified 802.11n Adaptive AP

HIGHLIGHTS

- Features FIPS 140-2 Level 2 certification, providing the necessary compliance for sensitive deployments
- Eliminates controller bottlenecks, supports performance-sensitive government agency applications, and lays the foundation for 802.11ac with Distributed AP Forwarding
- Reduces complexity and operational costs through consolidated network management
- Provides the highest throughput to support critical bandwidth-intensive applications, including voice, video, and cloud-based applications
- Supports and simplifies the extension of campus networks to remote or outdoor locations with mesh networking
- Provides enterprise-class security and dedicated IPS/IDS sensing, enabling 24x7 network protection against unauthorized users
- Safeguards connectivity to remote locations with optional 3G cellular WAN backhaul

To effectively protect highly sensitive and classified data, government agencies must deploy wireless networks with the highest possible security. The Brocade® Mobility 7131-GR Access Point (AP) addresses these needs and more by meeting Federal Information Processing Standard, Publication 140-2 (FIPS 140-2) and Common Criteria (CC) US Government Wireless LAN (WLAN) Access System Protection Profile security credentials.*

As a component of the Brocade HyperEdge™ Architecture and the industry's first 802.11a/b/g/n Adaptive Services AP, the Brocade Mobility 7131-GR AP meets these

stringent standards while delivering the performance, automation, reliability, and security required for high-quality agency wireless capabilities. The Brocade Mobility 7131-GR comes with a band-unlocked dual-radio design, which provides simultaneous support for three major networking functions:

- High-speed wireless data, voice, and video services for high-density client access
- Self-healing mesh networking
- Dedicated wireless Intrusion Prevention System (IPS) sensor functionality for around-the-clock network protection

*The Brocade Mobility 7131-GR is currently in process for FIPS 140-2 validation and CC EAL2 certification.



BROCADE

BROCADE HYPEREDGE ARCHITECTURE

The Brocade HyperEdge Architecture brings campus networks into the modern era to better support mobility, security, and application agility. This evolutionary architecture integrates innovative wired and wireless technologies to streamline application deployment, simplify network management, and reduce operating costs.

The HyperEdge Architecture enables organizations to build networks that are:

- **Agile:** By eliminating Spanning Tree Protocol (STP) between HyperEdge Domain switches through a flatter Layer 2 design, the HyperEdge Architecture increases link utilization and reduces application deployment complexity. The Distributed AP Forwarding functionality of Brocade wireless Access Points (APs) efficiently secures and directs mobile traffic at the network edge without tunneling data back to a central controller at the network core.
- **Automated:** By grouping premium and entry-level switches with intelligent wireless APs into a consolidated management domain, HyperEdge Domains eliminate the need to provision and manage devices individually—simplifying network deployment and management.
- **Cost-effective:** The HyperEdge Architecture enables the propagation of advanced features and services from premium switches to entry-level switches, allowing IT organizations to purchase only what they need today and add intelligent services as the business evolves. Further cost savings is achieved with Brocade wireless solutions using controller-less or controller-shared license deployment options.

Fully compliant with Dynamic Frequency Selection (DFS), the Brocade Mobility 7131-GR 802.11n AP offers speeds of up to 300 Mbps—six times the bandwidth of an 802.11a/g AP. An Adaptive Services AP architecture enables two modes of operation, so the Brocade Mobility 7131-GR can act as a stand-alone AP or as a wireless switch-adopted AP for centralized management.

“NETWORK IN A BOX” FOR GOVERNMENT AGENCIES

The Brocade Mobility 7131-GR can function as a stand-alone AP, providing small to medium-sized agencies and remote offices with a consolidated wired and wireless networking infrastructure. This design eliminates the need to purchase and manage multiple pieces of equipment, thanks to an integrated router; gateway; firewall; Dynamic Host Configuration Protocol (DHCP); Authentication, Authorization, and Accounting (AAA); Remote Authentication Dial-In User Service (RADIUS) servers; Internet Protocol Security (IPSec) VPN; hotspot gateway; and Power over Ethernet (PoE) capabilities.

CENTRALLY MANAGED ADAPTIVE AP

The Brocade Mobility 7131-GR is also designed to cost-effectively meet the needs of large, distributed agencies by combining the capabilities of a thick AP and a thin AP. An adaptive mode enables deployment of a full-feature intelligent AP, which can be centrally configured and managed via a Brocade Mobility controller either inside or outside a HyperEdge Domain. All traffic between adaptive APs and the wireless controller is secured through an encrypted tunnel.

In the event of a WAN, distribution, or core network failure, the Brocade Mobility 7131-GR offers a Remote Site Survivability (RSS) feature, which helps ensure the delivery of secure, uninterrupted wireless service in remote locations.

MESH NETWORKING FOR CHALLENGING LOCATIONS

Built-in mesh functionality enables cost-effective wireless extension of agency networks to areas where Ethernet or fiber cabling is cost-prohibitive or otherwise impractical. Self-forming and highly resilient Virtual LAN (VLAN) and Wi-Fi Multimedia (WMM) Quality of Service (QoS)-aware mesh technology allows agencies to wirelessly extend reliable, high-performance voice, data, and video services to remote and outdoor locations. Mesh functionality includes multinode, multilink networks—as well as simple point-to-point bridging to connect two wired networks. Self-healing mesh capabilities provide continuity of service in the event of a wired or wireless network failure.

GAP-FREE SECURITY WITH DUAL-BAND SENSING

The Brocade Mobility 7131-GR is the first 802.11 a/b/g/n AP to offer multiple concurrent services on a single platform along with around-the-clock, dedicated dual-band sensing to eliminate the need for separate devices. Integrated wireless IPS sensor firmware enables the configuration of one radio for 24×7 rogue detection and termination, while a second radio can be dedicated to wireless traffic.

The Brocade Mobility 7131-GR achieves gap-free security with rogue detection with dedicated dual-band sensing of 2.4 GHz and 5.0 GHz WLANs. Stateful firewall, encryption, and authentication support key standards-based security protocols that help ensure government-level protection for the wired and wireless network infrastructure. This powerful feature set can be administered by onsite nontechnical staff or remote IT professionals.

CONSOLIDATED NETWORK MANAGEMENT

To reduce complexity and the costs of managing campus environments, Brocade Network Advisor works seamlessly within the HyperEdge Architecture to discover, manage, and deploy configurations to groups of IP devices. By using the Brocade Network Advisor Device Configuration Manager tool, organizations can configure VLANs, 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 wired and Brocade Mobility wireless products, including Brocade Mobility 7131-GR APs and Brocade Mobility wireless controllers.

MULTIPURPOSE FLEXIBILITY TO CONTROL OPERATIONAL COSTS

As a cost-effective “network in a box,” the Brocade Mobility 7131-GR can be deployed as a stand-alone or centrally managed device to provide wireless voice, data, and video services; mesh backhaul; and wireless IPS sensor functionality. This flexibility simplifies wireless architectures and minimizes device disparity, so agencies can reduce the costs of purchasing and managing mobile networks.

Self-configuration in 802.3af environments further simplifies deployment. The ability to power both radios over 802.3af eliminates the need to upgrade existing PoE infrastructures. An industrial design with optional snap-on antenna façade enables agency-wide deployment whether in a warehouse or office environment. Packed with features, the Brocade Mobility 7131-GR offers the gap-free security and unmatched reliability government agencies require when deploying mobility solutions cost-effectively.

BROCADE GLOBAL SERVICES

Brocade Global Services has the expertise to help organizations build scalable, efficient cloud infrastructures. Leveraging 15 years of expertise in storage, networking, and virtualization, Brocade Global Services delivers world-class professional services, technical support, and education services, enabling organizations to maximize their Brocade investments, accelerate new technology deployments, and optimize the performance of networking infrastructures.

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. To learn more, visit www.Brocade.com/CapitalSolutions.

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.

BROCADE MOBILITY 7131-GR SPECIFICATIONS

802.11n Capabilities

Key features	3×3 MIMO with two spatial streams; 20 MHz and 40 MHz channels; 300 Mbps data rates per radio; packet aggregation (AMSDU, AMPDU); reduced inter-frame spacing; 802.11 DFS; MIMO power save (static and dynamic)
--------------	--

Physical Characteristics

Dimensions	5.50 in. L × 8.00 in. W × 1.50 in. H (13.97 cm L × 20.32 cm W × 3.81 cm H)
Weight	2.67 lb (1.21 kg)
Housing	Metal, plenum-rated housing (UL2043)
Available mounting	No additional hardware required
Configuration	Above drop ceiling, under ceiling, or on wall
LED indicators	Six top-mounted LEDs; one bottom-mounted LED with multiple modes indicating 802.11a/g/n activity, power, Ethernet adoption, Wireless Intrusion Prevention System (WIPS), and errors
Antenna connectors	RP-SMA
Console port	RJ-45

Environmental

Temperature	Operating: -4°F to 122°F (-20°C to 50°C) Non-operating: -40°F to 158°F (-40°C to 70°C)
Operating humidity	5% to 95% RH (non-condensing)
Altitude	Operating: 8000 ft. (2438 m) at 82°F (28°C) Non-operating: 15,000 ft. (4572 m) at 53°F (12°C)
Electrostatic discharge	15 kV air, 8 kV contact

Power Specifications

Operating voltage	36 to 57 VDC
Operating current	Not to exceed 600 mA at 48 VDC
Integrated Power over Ethernet (PoE)	802.3af, 802.3at (draft)

Networking Specifications

Layer 2 and Layer 3	Layer 3 routing, 802.1q, DynDNS, DHCP server/client, and PPPoE
---------------------	--

Security	Stateful firewall, IP filtering, NAT, 802.1x, 802.11i, WPA2, triple-methodology rogue detection: 24×7 dual-band WIPS sensing, MU-assisted, on-board IDS, and Secure Guest Access (hotspot)
----------	--

Quality of Service (QoS)	WMM, WMM-UAPSD, 802.1p, Diffserv, and TOS
--------------------------	---

Radio Specifications

Wireless medium	Direct Sequence Spread Spectrum (DSSS), Orthogonal Frequency Division Multiplexing (OFDM), and spatial multiplexing (MIMO)
-----------------	--

Network standards	802.11a, 802.11b, 802.11g, 802.3, 802.11n Draft 2.0, 802.11d and 802.11i WPA2, WMM, and WMM-UAPSD
-------------------	---

Data rates supported	802.11b/g: 1, 2, 5.5, 6, 9, 12, 18, 24, 36, 48, 54 Mbps 802.11a: 6, 9, 12, 18, 24, 36, 48, 54 Mbps 802.11n: MCS 0 to 15 up to 300 Mbps
----------------------	--

Operating channels	All channels from 4920 to 5825 MHz; Channels 1 to 13 (2412 to 2472 MHz); Channel 14 (2484 MHz) Japan only; actual operating frequencies depend on regulations
--------------------	---

Operating bands	FCC	EU
	2.412 to 2.462 GHz 5.150 to 5.250 (UNII -1) 5.250 to 5.350 GHz (UNII-2) 5.470 to 5.725 (UNII -3) 5.725 to 5.850 (ISM)	2.412 to 2.472 GHz 5.150 to 5.250 5.250 to 5.350 5.470 to 5.725 GHz 5.725 to 5.850 GHz (country-specific)

Japan
2.412 to 2.484 GHz 4.900 to 5.000 GHz 5.150 to 5.250 GHz (W52) 5.250 to 5.350 GHz (W53) 5.470 to 5.725 GHz (W56)

Maximum available transmit power	20 dBm (dependent on regulatory rules and certification agency)
----------------------------------	---

Transmit power adjustment	1 dB increments
---------------------------	-----------------

Antenna configuration	3×3 MIMO (transmit and receive on all three antennas)
-----------------------	---

Regulatory

Product certifications	UL/cUL 60950-1, IEC/EN60950-1, UL2043, RoHS
------------------------	---

Radio approvals	FCC (USA), Industry Canada, CE (Europe), TELEC (Japan)
-----------------	--

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

© 2013 Brocade Communications Systems, Inc. All Rights Reserved. 04/13 GA-DS-1519-01

ADX, AnyIO, Brocade, Brocade Assurance, the B-wing symbol, DCX, Fabric OS, ICX, MLX, MyBrocade, OpenScript, VCS, VDX, and Vyatta are registered trademarks, and HyperEdge, The Effortless Network, and The On-Demand Data Center are trademarks of Brocade Communications Systems, Inc., in the United States and/or in other countries. Other brands, products, or service names mentioned may be trademarks 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.