

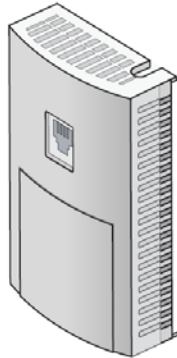


# Brocade Mobility 6511 Access Point

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## Installation Guide

Supporting software release 5.1.0.0 and later



**BROCADE**

53-1002343-01



53-1002343-01

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# Introduction

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The Brocade Mobility™ 6511 Access Point links wireless 802.11abgn devices to the controller, enabling the growth of your wireless network with a cost-effective alternative to standard Access Points.

The Brocade Mobility 6511 Access Point is an enterprise class 802.11n Access Point, installed in minutes anywhere a CAT-5 (or better) cable is located. The Brocade Mobility 6511 Access Point's mechanical design is optimized for installation over a standard CAT-5 (or better) wall jack. The AP does not protrude into the wall cavity, allowing for an efficient heat transfer and a universal installation over a standard Telco wiring plate. The Brocade Mobility 6511 Access Point's modular design allows the end-user to add switched Ethernet ports as-needed, and attach a standard keystone or Leviton QuickPort® modular connector to the wall plate.

The Brocade Mobility 6511 Access Point ships with a single dual-band radio supporting the 802.11abgn radio bands.

The Brocade Mobility 6511 Access Point receives all power and transfers data through the same CAT-5 or better Ethernet cable. There is no additional power supply required. An 802.3af Ethernet switch or a Brocade Mobility RFS4000 or RFS6000 model controller (both PoE capable) is required to power the Brocade Mobility 6511 Access Point.

Once cabled and powered, the Brocade Mobility 6511 Access Point functions as a dependent mode Access Point, and receives its configuration once adopted by a Brocade Mobility RFS4000, RFS6000 or RFS7000 controller.

The Brocade Mobility 6511 Access Point can be ordered for US deployment (BR-AP651160010US) or ordered for deployment outside of the US (BR-AP651160010WW).

## Document conventions

The following graphical alerts are used in this document to indicate notable situations

# 1 Warnings

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**NOTE**

Tips, hints, or special requirements that you should take note of.

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**CAUTION**

Care is required. Disregarding a caution can result in data loss or equipment malfunction.

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**DANGER**

*Indicates a condition or procedure that could result in personal injury or equipment damage.*

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## Warnings

- Read all installation instructions and site survey reports, and verify correct equipment installation before connecting the Brocade 6511 Access Point to its power source.
- Remove jewelry and watches before installing this equipment.
- Verify that the unit is grounded before connecting it to the power source.
- Verify any device connected to this unit is properly wired and grounded.
- Connect all power cords to a properly wired and grounded electrical circuit.
- Verify the electrical circuits have appropriate overload protection.
- Attach only approved power cords to the device.
- Verify the power connector and socket are accessible at all times during the operation of the equipment.
- Do not work with power circuits in dimly lit spaces.
- Do not install this equipment or work with its power circuits during thunderstorms or other weather conditions that could cause a power surge.
- Verify there is adequate ventilation around the device, and that ambient temperatures meet equipment operation specifications.

## Site preparation

- Consult your site survey and network analysis reports to determine specific equipment placement, power drops, and so on.
- Assign installation responsibility to the appropriate personnel.
- Identify and document where all installed components are located.
- Ensure adequate, dust-free ventilation to all installed equipment.
- Prepare Ethernet and console port connections.
- Verify cable lengths are within the maximum 100 meter allowable length.

## Package contents

The Brocade Mobility 6511 Access Point ships with internal (integrated) antennas.

- Brocade Mobility 6511 Access Point
- Mounting plate (used for both wall mount and Telco Box installations)
- Mounting plate lock screw
- Brocade Mobility 6511 Access Point Installation Guide (*This Guide*)
- RJ-45 double plug interconnect cable
- Fast Ethernet port 1 interconnect cable

## Features

- One RJ-45 PoE Ethernet port (built into the Brocade Mobility 6511 Access Point)
- Optional second RJ-45 Ethernet port utilizing a pass through (keystone) cable (included)
- Optional three port Ethernet expansion module (sold separately)
- 2 LED indicators

The pass through (keystone) cable provides an option to add a second Ethernet port before installing the Brocade Mobility 6511 Access Point.

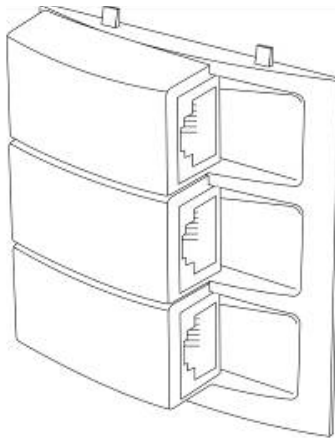
# 1 Features

The Brocade Mobility 6511 Access Point has one RJ-45 connector supporting an 10/100 Ethernet port and requires 802.3af compliant power from an external source.

The Brocade Mobility 6511 Access Point ships with a single dual-band radio supporting the 802.11abgn radio bands.

The Access Point contains runtime firmware which enables the unit to boot after either a power up or a watchdog reset. The runtime firmware on the Access Point can be updated via the Ethernet interface.

The front of the Brocade Mobility 6511 Access Point has an access cover that can be removed to expose an additional connector. A three port RJ-45 Ethernet expansion module connects to the hidden header and snaps onto the Brocade Mobility 6511 Access Point in place of the access cover.



Remove the Brocade Mobility 6511 Access Point's access cover by inserting a long pointed tool into the circular hole (opening) on the bottom of the Brocade Mobility 6511 Access Point. Pull the access cover up and away from the Brocade Mobility 6511 Access Point. Reverse the procedure to install the expansion module.

The Ethernet expansion module has three ports labeled FE2, FE3 and FE4.

The expansion module (Part Number KT-6511-0000D-WR) is a separately orderable component from Brocade.

# Contacting Brocade

When contacting Brocade support, please provide the following information:

- Serial number of the unit
- Model number or product name
- Software version

## Customer Support Web Site

Brocade Support Central Web site, located at [www.brocade.com/support](http://www.brocade.com/support) provides information and online assistance including developer tools, software downloads, product manuals and online repair requests.

## Downloads

<http://www.brocade.com/support/>

## Manuals

<http://www.brocade.com/ethernetproducts>

Because quality is our first concern at Brocade, we have made every effort to ensure the accuracy and completeness of this document. However, if you find an error or an omission, or you think that a topic needs further development, we want to hear from you. Forward your feedback to: [documentation@brocade.com](mailto:documentation@brocade.com).

Provide the title and version number and as much detail as possible about your comment, including the topic heading and page number and your suggestions for improvement.

## E-mail and telephone access

Go to <http://www.brocade.com/services-support/index.page> for email and telephone contact information.

## Warranty coverage

Contact Brocade Communications Systems using any of the methods listed above for information about the standard and extended warranties.

# Hardware Installation

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## Installation instructions

A Brocade Mobility 6511 Access Point mounts either on a wall, under a table or over a Telco Box. The Brocade Mobility 6511 Access Point is not plenum rated.

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**NOTE**

The provided metal mounting plate is fastened to an existing standard Telco in-wall box. The box is customer provided within the customer building structure, and can be either plastic or metal in composition. Screws and other mounting hardware are not included.

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The Brocade Mobility 6511 Access Point is mounted to a wall or Telco Box so the mounting plate is flush with the mounting surface.

The Brocade Mobility 6511 Access Point snaps on to the mounting plate without the use of tools or fastening hardware. Removal of the Brocade Mobility 6511 Access Point from the mounting plate can be accomplished without the use of a tool. A mounting lock screw is provided to help ensure a tamper resistant installation.

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**NOTE**

Once installed onto the mounting plate, the assembly can resist a minimum of 10 lbs of force before unit breakage or accidental disassembly.

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To prepare for an Brocade Mobility 6511 Access Point installation, perform the following:

1. Verify the contents of the box includes the intended Brocade Mobility 6511 Access Point model and accessory hardware.
2. Review site survey and network analysis reports to determine the location and mounting position for the Brocade Mobility 6511 Access Point.
3. Connect a CAT-5 or better Ethernet cable to a PoE compatible device and run the cable to the installation site. Ensure there is sufficient cable slack to perform the installation steps.

# Precautions

Before installing a Brocade Mobility 6511 Access Point:

- Verify the intended Brocade Mobility 6511 Access Point deployment location is not prone to moisture or dust.
- Verify the environment has a continuous temperature range between 0° C to 40° C.

## Access point placement

For optimal performance, install the Access Point away from transformers, heavy-duty motors, fluorescent lights, microwave ovens, refrigerators and other industrial equipment. Signal loss can occur when metal, concrete, walls or floors block transmission. Install the Access Point in an open area or add Access Points as needed to improve coverage.

To maximize the Access Point's radio coverage area, Brocade recommends conducting a site survey to define and document radio interference obstacles before installing the Access Point.

## Wall mount installation

To support wall mount installations, the metal mounting plate (provided with the Brocade Mobility 6511 Access Point) is fastened to a flat wall surface. The wall should be of gypsum board, plaster, wood or concrete in composition.

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### **NOTE**

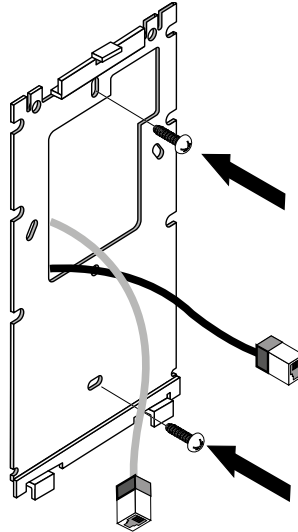
Brocade recommends the following customer supplied mounting accessories for a Brocade Mobility 6511 Access Point wall mount installation:

- 2, screws, #6 x 2.00 inch pan head
  - 2, wall anchors suitable for the #6 screws
-

To install a Brocade Mobility 6511 Access Point to a wall surface:

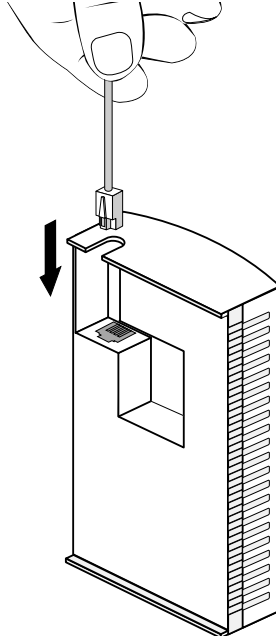
1. Attach the metal mounting plate (shipped with the Brocade Mobility 6511 Access Point) to a wall surface at the desired deployment location.

The screws used to mount the bracket are customer provided and should be #6, with a 2.00 inch length.



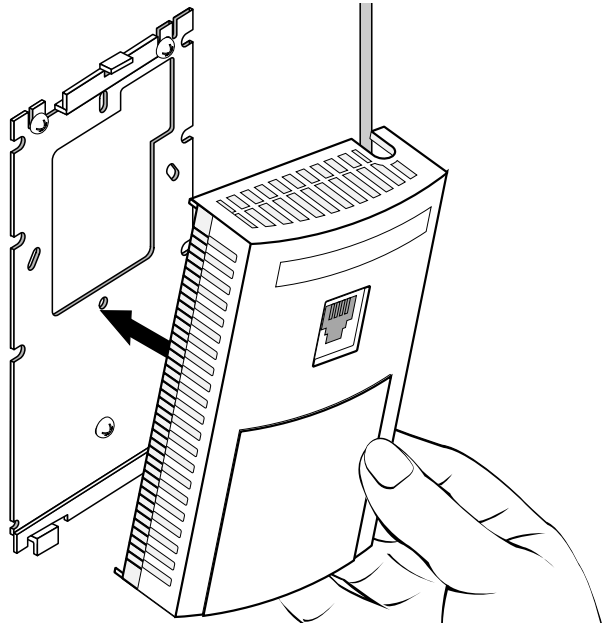
## 2 Wall mount installation

2. Connect one end of an RJ-45 cable into the wall mount connector on the Brocade Mobility 6511 Access Point as illustrated below.



3. If using the optional second RJ-45 Ethernet port (utilizing a pass through keystone cable), ensure the following steps are completed:
  - a. Bend the cable into a “U” shape so the mini pin connector and the RJ-45 keystone cable are in close proximity to one another.
  - b. Install the mini pin connector into the pin socket on the back of the Brocade Mobility 6511 Access Point. The connector is keyed and can only be installed one way. Ensure the mini pin connector is connected securely.
  - c. Remove the blank plug from the keystone hole by gently pushing it out from the back.
  - d. Orient the RJ-45 keystone connector so the flexible keystone tab is away from the mini pin connector. Tip the keystone RJ-45 while installing in the keystone opening so the solid locking tabs engage, then rotate the RJ-45 forward until the tab snaps securely.

4. Snap the Brocade Mobility 6511 Access Point on to the mounted wall plate. Use the locking screw to secure the unit. This connection does not require the use of tools or fastening hardware.



Once installed, connections are hidden from forward view, with only the physical infrastructure cables (Ethernet and power) extending from the Brocade Mobility 6511 Access Point.

5. Cable the Access Point using an 802.3af Ethernet switch or a Brocade Mobility RFS4000 or RFS6000 model controller (both PoE capable):
  - a. Connect an RJ-45 CAT5 Ethernet cable between the network data supply (host) and an 802.3af Ethernet switch or a Brocade Mobility RFS4000 or RFS6000 model controller's LAN/PoE enabled Ethernet port.
  - b. Connect an RJ-45 CAT5 Ethernet cable to the 802.3af Ethernet switch or a Brocade Mobility RFS4000 or RFS6000 model controller's LAN/PoE enabled Ethernet port. Connect the other end of the Ethernet cable to the front of the Brocade Mobility 6511 Access Point.
  - c. Ensure the cable length from the Ethernet source (host) to the 802.3af Ethernet switch or a Brocade Mobility RFS4000 or RFS6000 model controller and Access Point does not exceed 100 meters (333 ft).

## 2 Telco box installation

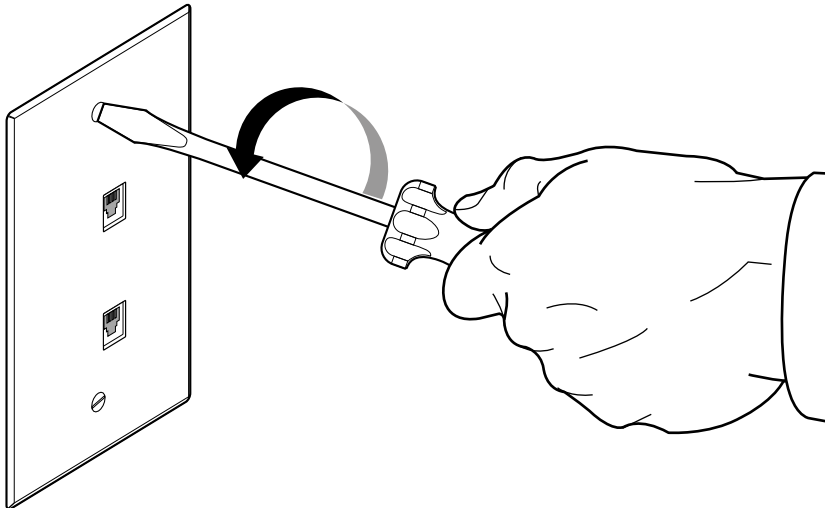
6. Verify the behavior of the Brocade Mobility 6511 Access Point LEDs. For more information, see “LED indicators” on page 16.
7. Once cabled and powered, the Brocade Mobility 6511 Access Point functions as a dependent mode Access Point, and receives its configuration once adopted by a RFS4000, RFS6000 or RFS7000 series controller. For information on using a controller to manage the Brocade Mobility 6511 Access Point, see <http://www.brocade.com/support/>.

## Telco box installation

For Telco Box installations, the Brocade Mobility 6511 Access Point is installed directly over the standard wall plate supplying Ethernet. All cabled electrical connections are made within a recessed well in the housing of the Brocade Mobility 6511 Access Point.

To install the Brocade Mobility 6511 Access Point over a Telco Box:

1. Remove the cover of the CAT5 wall plate.



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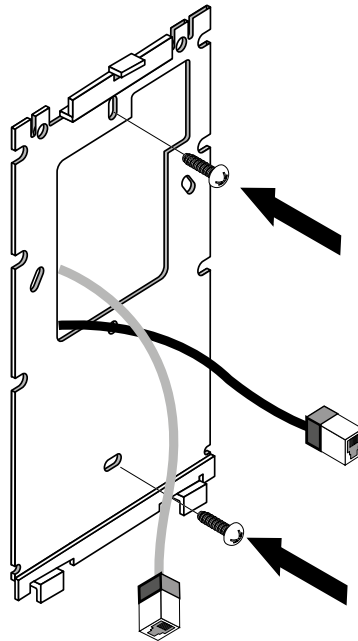
**NOTE**

The example above assumes the Telco Box has a 1 RJ11 phonejack and 1 RJ-45 10/100 Ethernet connection.

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2. Snap out keystone connectors from the existing plate.
3. Gently pull some cable out of the wall so it can be used with the Brocade Mobility 6511 Access Point.
4. Attach the metal mounting plate (shipped with the Brocade Mobility 6511 Access Point) to an existing standard Telco in-wall box.

The screws used to mount the bracket to the Telco Box are customer provided. You can use the same screws that covered the existing wall plate if necessary.

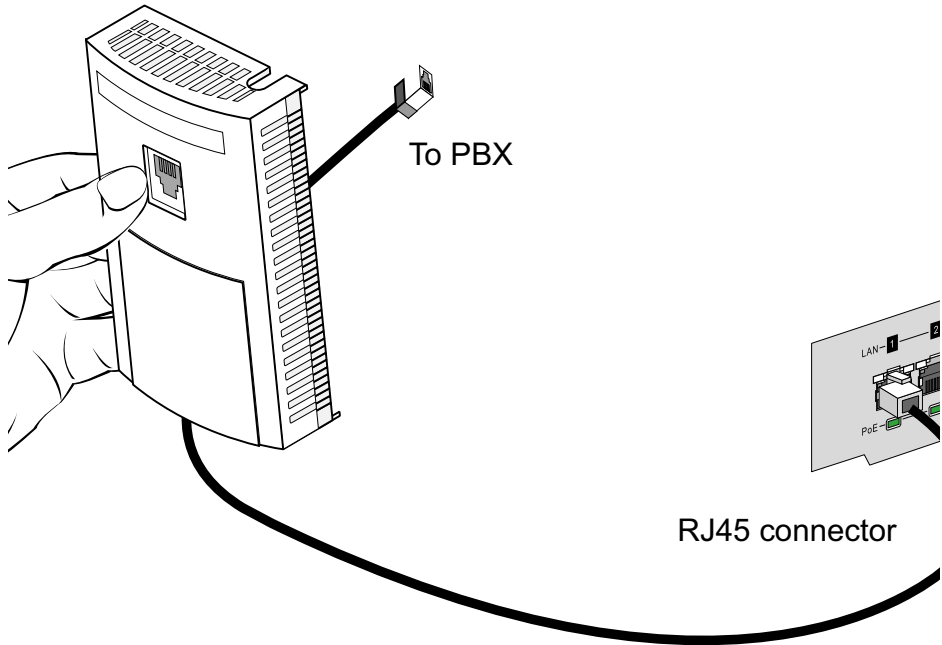


Mount the bracket to the wall so the Telco Box is ready available behind the mounting plate.

5. Remove the blank plug before installing the RJ11 into the snap-in port.

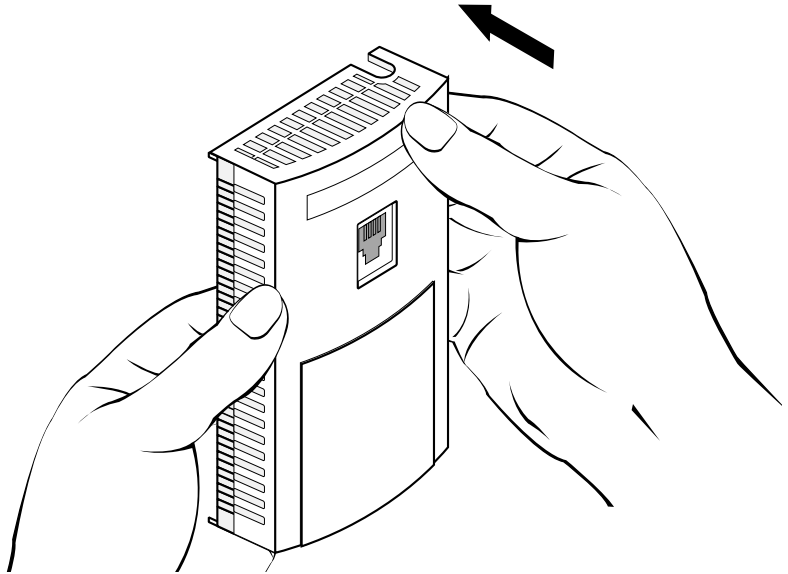
## 2 Telco box installation

6. Install the RJ11 (keystone style) connector into the Brocade Mobility 6511 Access Point's snap-in port.



7. If using the optional second RJ-45 Ethernet port (utilizing a pass through keystone cable), ensure the following steps are completed:
  - a. Bend the cable into a "U" shape so the mini pin connector and the RJ-45 keystone cable are in close proximity to one another.
  - b. Install the mini pin connector into the pin socket on the back of the Brocade Mobility 6511 Access Point. The connector is keyed and can only be installed one way. Ensure the mini pin connector is connected securely.
  - c. Remove the blank plug from the keystone hole by gently pushing it out from the back.
  - d. Orient the RJ-45 keystone connector so the flexible keystone tab is away from the mini pin connector. Tip the keystone RJ-45 while installing in the keystone opening so the solid locking tabs engage, then rotate the RJ-45 forward until the tab snaps securely.

8. Install the RJ-45 double plug uplink jumper into the UP1/POE jack and connect it into the RJ-45 Ethernet connector.
9. Snap the Brocade Mobility 6511 Access Point on to the mounted wall plate and secure the Brocade Mobility 6511 Access Point using the mounting plate lock screw. This connection does not require the use of tools or fastening hardware.



Once installed, no cables extend from the Brocade Mobility 6511 Access Point since they are hidden from view within the Telco Box.

10. Cable the Access Point using an 802.3af Ethernet switch or a Brocade Mobility RFS4000 or RFS6000 model controller (both PoE capable):
  - a. Connect an RJ-45 CAT5 Ethernet cable between the network data supply (host) and an 802.3af Ethernet switch or a Brocade Mobility RFS4000 or RFS6000 model controller's LAN/PoE enabled Ethernet port.
  - b. Connect an RJ-45 CAT5 Ethernet cable to the 802.3af Ethernet switch or a Brocade Mobility RFS4000 or RFS6000 model controller's LAN/PoE enabled Ethernet port. Connect the other end of the Ethernet cable to the front of the Brocade Mobility 6511 Access Point..
  - c. Ensure the cable length from the Ethernet source (host) to the 802.3af Ethernet switch or a Brocade Mobility RFS4000 or RFS6000 model controller and Access Point does not exceed 100 meters (333 ft).

## 2 Brocade Mobility 6511 Access Point antennas

11. Verify the behavior of the Brocade Mobility 6511 Access Point LEDs. For more information, see “LED indicators” on page 16.
12. Once cabled and powered, the Brocade Mobility 6511 Access Point functions as a dependent mode Access Point, and receives its configuration once adopted by a Brocade Mobility RFS4000, RFS6000 or RFS7000 series controller. For information on using a controller to manage the Brocade Mobility 6511 Access Point, see <http://www.brocade.com/support/>.

## Brocade Mobility 6511 Access Point antennas

The Brocade Mobility 6511 Access Point contains two internal (embedded) dual-band antennas supporting both the 802.11bgn (2.4 GHz) and 802.11an (5.0 GHz) bands. No customer assembly or antenna orientation is required.

The Brocade Mobility 6511 Access Point radio can transmit on one or two antennas depending on the operating mode. The radio can receive on one or two antennas as well. The data rates supported are different in each case.

## LED indicators

A Brocade Mobility 6511 Access Point has two LED activity indicators on the front of the unit.

The LEDs provide a status display indicating error conditions, transmission, and network activity for the 5 GHz 802.11an (amber) radio or the 2.4 GHz 802.11bgn (green) radio.

Task	5 GHz Activity LED (Amber)	2.4 GHz Activity LED (Green)
Unadopted	Off (if adopted)	Blinking
Normal Operation	<ul style="list-style-type: none"><li>• If this radio band is enabled: Blink at 5 second interval</li><li>• If this radio band is disabled: Off</li><li>• If there is activity on this band: Blink at a 1Hz</li></ul>	<ul style="list-style-type: none"><li>• If this radio band is enabled: Blink at 5 second interval</li><li>• If this radio band is disabled: Off</li><li>• If there is activity on this band: Blink at a 1Hz</li></ul>

<b>Task</b>	<b>5 GHz Activity LED (Amber)</b>	<b>2.4 GHz Activity LED (Green)</b>
Firmware Update	On	Off
Locate AP Mode	Blink at 5Hz (Out of Phase with Activity LED)	8 blinks at 50ms followed by an off interval of 1 second

## 2 LED indicators

# Specifications

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## Electrical characteristics

A Brocade Mobility 6511 Access Point has the following electrical characteristics:

<b>Operating Current &amp; Voltage</b>	250mA@48VDC
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## Physical characteristics

A Brocade Mobility 6511 Access Point has the following physical characteristics:

<b>Dimensions</b>	2.75 width x 5 height x 1.25 deep (Inches) 6.985 width x 12.7 height x 3.175 deep (centimeters)
<b>Housing</b>	Plastic and metal
<b>Weight</b>	0.5 lbs (with mounting plate)
<b>Operating Temperature</b>	32 °F to 104 °F/0 °C to 40 °C
<b>Storage Temperature</b>	-40 °F to 158 °F/-40 °C to 85 °C
<b>Operating Humidity</b>	5 to 95% Relative Humidity non-condensing
<b>Storage Humidity</b>	95% Relative Humidity non-condensing
<b>Operating Altitude (max)</b>	8,000 ft @ 28 °C
<b>Storage Altitude (max)</b>	30,000 ft @ 12 °C
<b>Electrostatic Discharge</b>	+/-15kV Air and +/-8kV Contact @ 50% Relative Humidity

## Radio characteristics

A Brocade Mobility 6511 Access Point has the following radio characteristics:

<b>Operating Channels</b>	All channels from 5180 MHz to 5825 MHz Channels 1-13 (2412-2472 MHz) Actual operating frequencies depend on regulatory approval for the country of use.
<b>Data Rates Supported</b>	802.11b: 1Mbps, 2Mbps, 5.5Mbps and 11Mbps 802.11g: 6Mbps, 9Mbps, 12Mbps, 18Mbps, 24Mbps, 36Mbps, 48Mbps and 54Mbps 802.11n: MCS0 through MCS15, HT20 and HT40
<b>Wireless Medium</b>	<i>Direct Sequence Spread Spectrum (DSSS), Orthogonal Frequency Division Multiplexing (OFDM) Spatial multiplexing (MIMO)</i>
<b>Network Standards</b>	802.11a, 802.11b, 802.11g, 802.3, 802.11n
<b>Typical Transmit Power Per Antenna</b>	2.4G: +24dBm max 5.2G: +22dBm max
<b>Transmit Power Adjustment</b>	1dB increments

# Regulatory Information

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## Regulatory overview

This guide applies to the Brocade Mobility 6511 Access Point

All Brocade devices are designed to be compliant with rules and regulations in locations they are sold and will be labeled as required.

Any changes or modifications to Brocade equipment, not expressly approved by Brocade, could void the user's authority to operate the equipment.

Brocade Access Points must be professionally installed and configured so that the Radio Frequency Output Power will not exceed the maximum allowable limit for the country of operation.

Antennas: Use only the supplied or an approved replacement antenna. Unauthorized antennas, modifications, or attachments could cause damage and may violate regulations. Use of an unapproved antenna is illegal under FCC regulations subjecting the end user to fines and equipment seizure.

## Wireless Device Country Approvals

Regulatory markings, subject to certification, are applied to the device signifying the radio(s) is/are approved for use in the following countries: United States, Canada, Japan, China, S. Korea, Australia, and Europe.

Please refer to the Declaration of Conformity (DoC) for details of other country markings. This is available at <http://www2.symbol.com/doc/>.

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### NOTE

For 2.4GHz or 5GHz Products: Europe includes, Austria, Belgium, Bulgaria, Czech Republic, Cyprus, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovak Republic, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

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## 4 Health and safety recommendations



Operation of the device without regulatory approval is illegal.

### Country Selection – Note for AP & Wireless Controller

Select only the country in which you are using the device. Any other selection will make the operation of this device illegal. The US version of the Access Point will only have US listed in the country selection table. The US version will be sold / used in the US protectorates: American Samoa, Guam, Puerto Rico, US Virgin Islands.

### Frequency of Operation – FCC and IC

#### 5 GHz Only

The use on UNII (Unlicensed National Information Infrastructure) Band 1 5150-5250 MHz and Band 3 5470 - 5725 MHz is restricted to indoor use only, any other use will make the operation of this device illegal.

Devices using the 5470 – 5725 MHz band shall not be capable of transmitting in the band 5600 - 5650 MHz in the US, this “Notched” band has been disabled in the US version of the Access Point.

#### 2.4 GHz Only

The available channels for 802.11 b/g operation in the US are Channels 1 to 11. The range of channels is limited by firmware.

## Health and safety recommendations



### Warnings for the use of wireless devices

Please observe all warning notices with regard to the usage of wireless devices

## Potentially Hazardous Atmospheres – Fixed Installations

You are reminded of the need to observe restrictions on the use of radio devices in fuel depots, chemical plants etc. and areas where the air contains chemicals or particles (such as grain, dust, or metal powders).

## Safety in Hospitals

Wireless devices transmit radio frequency energy and may affect medical electrical equipment. When installed adjacent to other equipment, verify adjacent equipment is not adversely affected.

### Pacemakers

Pacemaker manufacturers recommended that a minimum of 15cm (6 inches) be maintained between a handheld wireless device and a pacemaker to avoid potential interference with the pacemaker. These recommendations are consistent with independent research and recommendations by Wireless Technology Research.

Persons with Pacemakers:

- Should ALWAYS keep the device more than 15cm (6 inches) from their pacemaker when turned ON.
- Should not carry the device in a breast pocket.
- Should use the ear furthest from the pacemaker to minimize the potential for interference.
- If you have any reason to suspect that interference is taking place, turn OFF your device.

### Other Medical Devices

Please consult your physician or the manufacturer of the medical device, to determine if the operation of your wireless product may interfere with the medical device.

## RF Exposure Guidelines

### Safety Information

#### Reducing RF Exposure—Use Properly

Only operate the device in accordance with the instructions supplied.

## International

The device complies with internationally recognized standards covering human exposure to electromagnetic fields from radio devices. For information on “International” human exposure to electromagnetic fields, refer to the Declaration of Conformity (DoC). This is available at <http://www2.symbol.com/doc/>.

## EU

#### Remote and Standalone Antenna Configurations

To comply with EU RF exposure requirements, antennas that are mounted externally at remote locations or operating near users at stand-alone desktop of similar configurations must operate with a minimum separation distance of 20 cm from all persons.

## US and Canada

#### Co-located statement

To comply with FCC RF exposure compliance requirement, the antennas used for this transmitter must not be co-located or operating in conjunction with any other transmitter/antenna except those already approved in this filing.

**Remote and Standalone Antenna Configurations**

To comply with FCC RF exposure requirements, antennas that are mounted externally at remote locations or operating near users at stand-alone desktop of similar configurations must operate with a minimum separation distance of 20 cm from all persons.

## Power Supply

This device is powered from a 802.3af compliant power source which is UL approved and certified by the appropriate agencies.

## Radio Frequency Interference Requirements—FCC



This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/TV technician for help

**Radio Transmitters (Part 15)**

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Restricted Band 5.60 – 5.65 GHz

## Radio Frequency Interference Requirements – Canada

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

### Radio Transmitters

For RLAN Devices:

The use of 5 GHz RLAN's, for use in Canada, have the following restrictions:

- Restricted Band 5.60 – 5.65 GHz

This device complies with RSS 210 of Industry & Science Canada. Operation is subject to the following two conditions: (1) this device may not cause harmful interference and (2) this device must accept any interference received, including interference that may cause undesired operation.

Label Marking: The Term "IC:" before the radio certification only signifies that Industry Canada technical specifications were met.

## CE Marking and European Economic Area (EEA)



The use of 2.4 GHz RLAN's, for use through the EEA, have the following restrictions:

- Maximum radiated transmit power of 100 mW EIRP in the frequency range 2.400 -2.4835 GHz.
- France, outside usage is restricted to 2.4 – 2.454 GHz.
- Italy requires a user license for outside usage.

## Statement of Compliance

Brocade hereby, declares that this device is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC. A Declaration of Conformity may be obtained from <http://www2.symbol.com/doc/>

## Waste Electrical and Electronic Equipment (WEEE)



For information on WEEE, please go to:

<http://www.brocade.com/company/corporate-responsibility/corporate-citizenship/product-recycling/weee.page>

## TURKISH WEEE Statement of Compliance

EEE Yönetmeliğine Uygundur

## Japan (VCCI) - Voluntary Control Council for Interference Class B ITE

この装置は、情報処理装置等電波障害自主規制協議会（VCCI）の基準に基づくクラスB情報技術装置です。この装置は、家庭環境で使用することを目的としていますが、この装置がラジオやテレビジョン受信機に近接して使用されると、受信障害を引き起こすことがあります。取扱説明書に従って正しい取り扱いをして下さい。

This is a Class B product based on the standard of the Voluntary Control Council for Interference from Information Technology Equipment (VCCI). If this is used near a radio or television receiver in a domestic environment, it may cause radio interference. Install and use the equipment according to the instruction manual.

# Korea Warning Statement for Class B ITE

B 급 기기 ( 가정용 방송통신기기 ): 이 기기는 가정용 ( B 급 ) 으로 전자파적합등록을 한 기기로서 주로 가정에서 사용하는 것을 목적으로 하며 , 모든 지역에서 사용할 수 있습니다 .

Class B device (Broadcasting Communication Device for Home Use): This device obtained EMC registration mainly for home use (Class B) and may be used in all areas.

## Other Countries

### Australia

Use of 5 GHz RLAN's in Australia is restricted in the following band 5.50 – 5.65 GHz.

### Brazil

Regulatory declarations for Brocade Mobility 6511 Access Point - BRAZIL

Note: The certification mark applied to the Brocade Mobility 6511 Access Point is for Restrict Radiation Equipment. This equipment operates on a secondary basis and does not have the right for protection against harmful interference from other users including same equipment types. Also this equipment must not cause interference to systems operating on primary basis.

For more information consult the website <http://www.anatel.gov.br>

Declarações Regulamentares para Brocade Mobility 6511 Access Point - Brasil

Nota: "A marca de certificação se aplica ao Transceptor, modelo Brocade Mobility 6511 Access Point. Este equipamento opera em caráter secundário, isto é, não tem direito a proteção contra interferência prejudicial, mesmo de estações do mesmo tipo, e não pode causar interferência a sistemas operando em caráter primário."

Para maiores informações sobre ANATEL consulte o site: <http://www.anatel.gov.br>

## Chile

“Este equipo cumple con la Resolución No 403 de 2008, de la Subsecretaria de telecomunicaciones, relativa a radiaciones electromagnéticas.”.

"This device complies with the Resolution Not 403 of 2008, of the Undersecretary of telecommunications, relating to electromagnetic radiation.”

## Mexico

Restrict Frequency Range to: 2.450 – 2.4835 GHz.

## Taiwan

### **NOTICE!**

According to: Administrative Regulations on Low Power Radio Waves Radiated Devices

### **Article 12**

Without permission granted by the DGT, any company, enterprise, or user is not allowed to change frequency, enhance transmitting power or alter original characteristic as well as performance to an approved low power radio-frequency devices.

### **Article 14**

The low power radio-frequency devices shall not influence aircraft security and interfere legal communications; If found, the user shall cease operating immediately until no interference is achieved.

The said legal communications means radio communications is operated in compliance with the Telecommunications Act.

## 4 Other Countries

The low power radio-frequency devices must be susceptible with the interference from legal communications or ISM radio wave radiated devices.

### 臺灣

低功率電波輻射性電機管理辦法

#### 第十二條

經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。

#### 第十四條

低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。

前項合法通信，指依電信規定作業之無線電通信。

低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

Wireless device operate in the frequency band of 5.25-5.35 GHz, limited for Indoor use only.

在 5.25-5.35 赫頻帶內操作之無線資訊傳輸設備，限於室內使用。

## Korea

For radio equipment using 2400~2483.5MHz or 5725~5825MHz, the following expressions should be displayed:

1. “This radio equipment can be interfered with during operation.”

당해 무선설비는 운용 중 전파혼신 가능성이 있음

2. “This radio equipment cannot provide a service relevant to human life safety, as it can be crossed” through the user manual, etc.

당해 무선설비 는전파혼 신 가능성이 있으므로 인명안전과 관련된 서비스는 할 수 없습니다



