Release Notes for Cisco Aironet Access Points and Bridges for Cisco IOS Release 15.2(2)JA

August 2012

These release notes describe features, enhancements, and caveats for Cisco IOS Release 15.2(2)JA. This release supports 32-MB autonomous Cisco Aironet 1040, 1140, 1250, 1260, and 2600 series access points. Cisco Aironet 1130 and 1240 Series Access Points are supported in corresponding Cisco IOS Release 12.4(25d)JA2.

Note You cannot use HTTPS file transfer to upgrade to Cisco IOS Release 15.2(2)JA from previous releases. Because of the image size for this release, you must use TFTP or FTP file transfer for the upgrade. Refer to the upgrade instructions at this URL: http://www.cisco.com/en/US/docs/wireless/access_point/12.4_10b_JA/configuration/guide/scg12410b-chap20-firmware.html#wp1035507

Contents

These release notes contain the following sections:

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Introduction

The Cisco Aironet Access Point is a wireless LAN transceiver that acts as the connection point between wireless and wired networks or as the center point of a standalone wireless network. In large installations, the roaming functionality provided by multiple access points enables wireless users to move freely throughout the facility while maintaining uninterrupted access to the network.

You can configure and monitor 520, 1040, 1100, 1140, 1200, 1250, 1260, and 2600 series access pointsby using the command-line interface (CLI), the web-browser interface, or Simple Network Management Protocol (SNMP).

System Requirements

You can install the 32-MB Cisco IOS Release 15.2(2)JA on all 1040, 1140, 1250, 1260, and 2600 series access points.

Finding the Cisco IOS Software Release

To find the version of Cisco IOS software running on your access point, use a Telnet session to log into the access point, and enter the **show version** EXEC command. This example shows command output from an access point running Cisco IOS Release 15.2(2)JA:

```
ap1260AG> show version
Cisco IOS Software, C1260 Software (AP3G1-K9W7-M), Version 15.2(2)JA
Copyright (c) 1986-2010 by Cisco Systems, Inc.
```

On access points running Cisco IOS software, you can also find the software release on the System Software Version page in the access point's web-browser interface. If your access point does not run Cisco IOS software, the software release appears at the top left of most pages in the web-browser interface.

Upgrading to a New Software Release

Note You cannot use HTTPS file transfer to upgrade to Cisco IOS Release 15.2(2)JA from previous releases. Because of the image size for this release, you must use TFTP or FTP file transfer for the upgrade. Refer to the upgrade instructions at this URL:
http://www.cisco.com/en/US/docs/wireless/access_point/12.4_10b_JA/configuration/guide/scg12410b-chap20-firmware.html#wp1035507

Follow these steps for instructions on upgrading your access point or bridge software:

Step 1 Follow this link to the Cisco home page:

http://www.cisco.com

Step 2 Click **Support**. The Support and Documentation page appears.

Step 3 Under the Select a Product Name, click **Wireless**. The Product/Technology Support page appears.

Step 4 Under the Make a Selection to Continue section, click **Access Point**. Products and Access Point are highlighted.

Step 5 Select the access point model for which you need the information. For example, click the **Cisco Aironet 1260 Series.** A list of documents appears.

Step 6 Click **Configure**. A list of configuration documents appears.

Step 7 Click **Cisco IOS Software Configuration Guide for Cisco Aironet Access Points, 15.2(2)JA**.

Step 8 Navigate to the Managing Firmware and Software chapter.

For information on Cisco IOS software, click this link to browse to the Cisco IOS Software Center on Cisco.com:

http://www.cisco.com/cisco/software/navigator.html

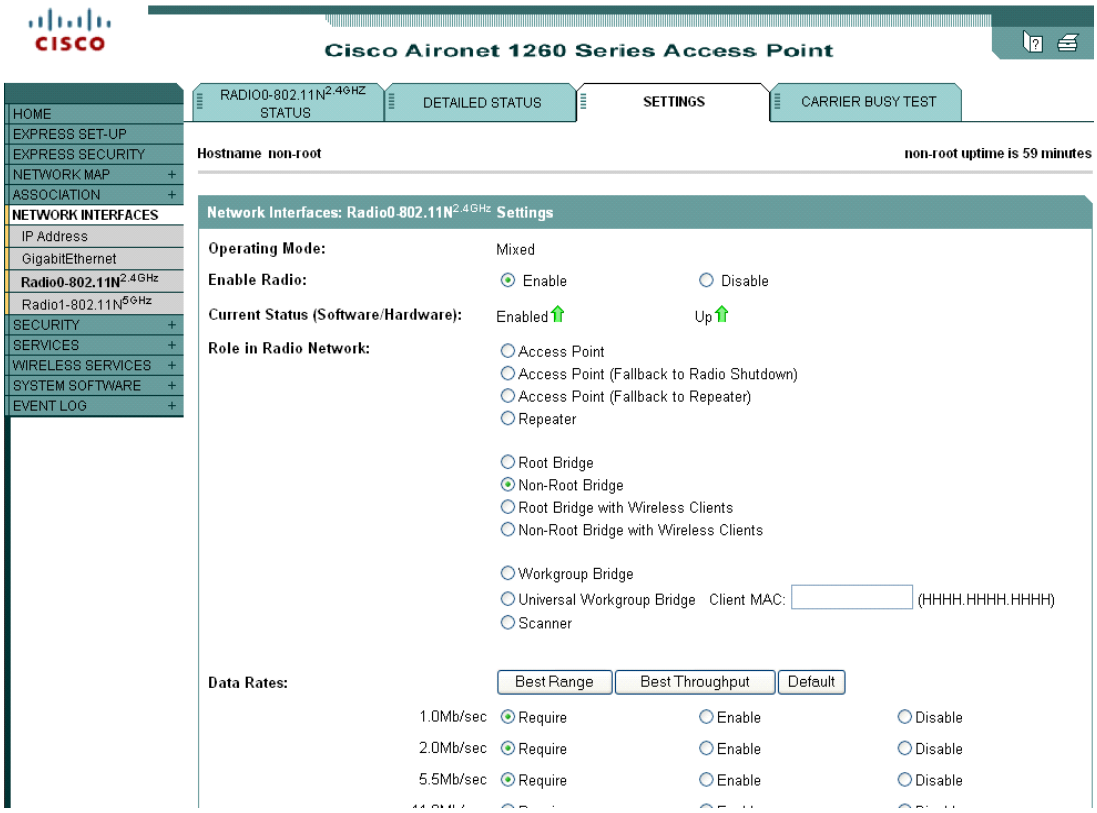
Disable Radios to Prevent Unexpected Reboot When Upgrading System Software

If your access point runs Cisco IOS Release 12.2(11)JA, 12.2(11)JA1, or 12.2(11)JA2, your access point might unexpectedly reboot after you upgrade to a later Cisco IOS release. Because of a rare timing condition that affects the radios, the access point sometimes reboots immediately after the upgrade when the radios are enabled. However, after the access point reboots the upgrade is complete and the access point operates normally. To prevent the access point from rebooting unexpectedly, disable the radio interfaces before upgrading software.

Follow these steps to disable the radio interfaces using the access point's web-browser interface, which you can access through the access point's Ethernet port:

Step 1 Browse to the Network Interfaces: Radio Settings page. Figure 1 shows the top portion of the Network Interfaces: Radio Settings page.

Figure 1 Network Interfaces: Radio Settings Page



Step 2 Select **Disable** to disable the radio.

Step 3 Click **Apply** at the bottom of the page.

Step 4 If your access point has two radios, repeat these steps for the second radio.

Beginning in privileged EXEC mode, follow these steps to disable the access point radios using the access point CLI:

	Command	Purpose
Step 1	**configure terminal**	Enter global configuration mode.
Step 2	**interface dot11radio** {**0** | **1**}	Enter interface configuration mode for the radio interface. The 2.4-GHz radio is radio 0, and the 5-GHz radio is radio 1.
Step 3	**shutdown**	Disable the radio port.
Step 4	**end**	Return to privileged EXEC mode.
Step 5	**copy running-config startup-config**	(Optional) Save your entries in the configuration file.

If your access point has two radios, repeat these steps for the second radio. Use the **no** form of the **shutdown** command to enable the radio.

New Features

Cisco IOS Release 15.2(2)JA has the following new features:

- Support for Cisco Aironet 2600 Series Access Points
- Site-Survey Only Mode for 3600, 3500, and 1550 Access Points
- Enhanced Support for Workgroup Bridges

Support for Cisco Aironet 2600 Series Access Points

This release supports standalone Cisco Aironet 2600 Series Access Points. Detailed information and configuration procedures for autonomous (standalone) access point are in Chapter 6 of the *Cisco IOS Software Configuration Guide for Cisco Aironet Access Points, 15.2(2)JA, 12.4(25d)JA & 12.3(8)JEE*, which is available on Cisco.com at the following URL:

http://www.cisco.com/en/US/products/ps6973/tsd_products_support_series_home.html

Note Although 2600 series access points support CleanAir when connected to a wireless LAN controller, standalone 2600 series access point do not support CleanAir.

Note The 802.11n HT rates apply only to no encryption or WPA2/AES encryption. They do not apply to WEP or WPA encryption. If WEP or TKIP encryption is used, the 1040, 1140, 1250, 1260, and 2600 series access points and any 802.11n Draft 2.0 clients will not transmit at the HT rates. Legacy rates (802.11a/b/g) will be used for any clients using WEP or TKIP encryption.

Site-Survey Only Mode for 3600, 3500, and 1550 Access Points

You can install Cisco IOS Release 15.2(2)JA on Cisco Aironet 3600 and 3500 Series access points and on 1550 series outdoor access points to perform site surveys. This release runs on these access points with limited functionality. You can manually adjust these settings on the site-survey access points:

- Channel on each radio
- Transmit power on each radio
- Enable and disable the radios
- Manually set basic and supported transmit rates
- Enable advertised cell power in beacons to client to enable DTPC for doing active surveys
- Enable and disable SSID broadcast in beacons
- Enable open authentication

Enhanced Support for Workgroup Bridges

This release provides additional support for access points in workgroup bridge mode:

- An access point configured as a workgroup bridge can now associate to a root access point using the following:

  - PEAP/EAP-GTC
  - PEAP/EAP-MSCHAPv2
- Roaming improvements (for client workgroup bridges):
  - This release improves the reliability of fast roaming on workgroup bridges by allowing the unit an additional retry when it needs to reassociate to the root access point.
  - This release also improves the method that workgroup bridges use to select the “best parent” access point. Workgroup bridges can share association histories with rot access points, which can build and share a list of best root access points among workgroup bridges. This method improves helps workgroup bridges select the best root access point when roaming.
- VideoStream support on workgroup bridges (when used as a client): VideoStream improves the reliability of an IP multicast stream by converting the multicast frame, over the air, to a unicast frame. VideoStream was not supported for workgroup bridge clients in previous releases because a workgroup bridge’s wired clients cannot be added to the controller (WLC) multicast table. In this release, the workgroup bridge is added to the WLC multicast table, and the workgroup bridge converts the VideoStream unicast frame into an Ethernet multicast frame and sends it out to its wired clients.

  Enter this command on the controller to enable VideoStream for workgroup bridges:

  config media-stream wired-client enable

Installation Notes

This section contains information that you should keep in mind when installing 1040, 1130, 1140, 1240, 1250, 1260, and 2600 series access points.

Access Points

This section contains installation notes for access points.

Installation in Environmental Air Space

Cisco Aironet 1040, 1130, 1140, 1240, 1250, 1260, and 2600 Series Access Points provide adequate fire resistance and low smoke-producing characteristics suitable for operation in a building's environmental air space, such as above suspended ceilings, in accordance with Section 300-22(C) of the *National Electrical Code* (NEC) and Sections 2-128, 12-010(3) and 12-100 of the *Canadian Electrical Code*, Part 1, C22.1.

Caution The power injector does not provide fire resistance and low smoke-producing characteristics and is not intended for use in extremely high or low temperatures or in environmental air spaces such as above suspended ceilings.

Antenna Installation

For instructions on the proper installation and grounding of external antennas for 1260 series access points, refer to the National Fire Protection Association's *NFPA 70, National Electrical Code*, Article 810, and the Canadian Standards Association's *Canadian Electrical Code*, Section 54.

Warning **Do not install the antenna near overhead power lines or other electric light or power circuits, or where it can come into contact with such circuits. When installing the antenna, take extreme care not to come into contact with such circuits, as they may cause serious injury or death.**

Important Notes

This section describes important information about access points and bridges.

Use FTP or FTPS File Transfer to Upgrade to Cisco IOS Release 15.2(2)JA

You cannot use HTTPS file transfer to upgrade to Cisco IOS Release 15.2(2)JA from previous releases. Because of the image size for this release, you must use TFTP or FTP file transfer for the upgrade. Refer to the upgrade instructions at this URL:

http://www.cisco.com/en/US/docs/wireless/access_point/12.4_10b_JA/configuration/guide/scg12410b-chap20-firmware.html#wp1035507

Cisco 1040/1140 Series Access Points May Record "watchdog timer expired" as Last Reset Reason

The following error message sometimes appears as the last reset reason when the access points are power cycled:

```
Watchdog timer expired
```

This symptom is observed only in Cisco 1040/1140 Series Access Point and does not have any impact on functionality. Ignore the "watchdog timer expired" reason after an access point has been power cycled. You can also overwrite the reset reason to "reload" by rebooting with command operation.

Regulatory Update for Japan

This release supports the U regulatory domain for the W52 frequency set (channels 36, 40, 44, and 48) in Japan for the Cisco Aironet 1200 and 1230 Series. This support was added for the Cisco Aironet 1130 and 1240 series in Cisco IOS Software Release 12.4(3G)JA, which shipped previously. Cisco access points specified for this new domain ship with a U domain radio. Installed J domain access points are automatically upgraded to U domain status with this release.

For the latest Cisco WLAN compliance status, please visit this URL:

http://www.cisco.com/en/US/prod/collateral/wireless/ps5679/ps5861/product_data_sheet0900aecd80537b6a_ps430_Products_Data_Sheet.html.

Point-to-point and Point-to-Multipoint bridging support for 802.11n platforms

The point-to-point and point-to-multipoint bridging is supported on the Cisco Aironet 1040, 1140, 1250, 1260, and 2600 Series Access Points (802.11n platforms). The 5-GHz bands support 20- and 40-MHz channel widths, and the 2.4-GHz bands support only a 20-MHz channel width.

The following items are supported for AP 1040, AP 1140, AP 1250, AP 1260 and AP 2600 bridging:

- MIMO, short-range bridging (on campus or inter-building bridge deployments), with dipole and MIMO antennas (line of sight and short range) under 1 Km.
- 20-MHz and 40-MHz 802.11n support.
- Workgroup bridge (WGB) short-range support.
- SISO (single-in, single-out), MCS 0-7 and legacy bridge rates (802.11 a/b/g and 802.11n) using one outdoor antenna.

Note This is only supported using short range links and is not a replacement for the AP-1240/1300/1400 or other Bridge products.

The following items are not supported for AP 1040 AP 1140, AP 1250, AP 1260 and AP 2600 bridging:

- The distance CLI command: long-range links over 1 Km currently are not supported; therefore the distance command is not supported.
- Outdoor MIMO bridging using external antennas has not been fully tested and is not fully supported with this release.

Access Points are Transmitting Multicast and Management Frames

Access points running recent Cisco IOS versions transmit multicast and management frames at the highest configured basic rate, which can cause reliability problems.

Access points running LWAPP or autonomous IOS should transmit multicast and management frames at the lowest configured basic rate. This is necessary in order to provide for good coverage at the cell's edge, especially for unacknowledged multicast transmissions where multicast wireless transmissions may fail to be received.

Since multicast frames are not retransmitted at the MAC layer, stations at the edge of the cell may fail to receive them successfully. If reliable reception is a goal, then multicasts should be transmitted at a low data rate. If support for high data rate multicasts is required, then it may be useful to shrink the cell size and to disable all lower data rates.

Depending on your specific requirements, these options are available:

- If you need to transmit multicast data with the greatest reliability and if there is no need for great multicast bandwidth, configure a single basic rate that is low enough to reach the edges of the wireless cells.
- If you need to transmit multicast data at a certain data rate in order to achieve a certain throughput, configure that rate as the highest basic rate. You can also set a lower basic rate for coverage of non-multicast clients.

Low Throughput Seen on 1260 Series Access Points with 16 BSSIDs Configured

If your network uses 16 BSSIDs with 1- and 2-Mbps data rates, 1260 series access points might experience very low throughput due to high management traffic.

802.11n HT Rates Apply Only to No Encryption or WPA2/AES Encryption

The 802.11n HT rates apply only to no encryption or WPA2/AES encryption. They do not apply to WEP or WPA encryption. If WEP or TKIP encryption is used, the 1250 series access points and any 802.11n Draft 2.0 clients will not transmit at the HT rates. Legacy rates (802.11a/b/g) will be used for any clients using WEP or TKIP encryption.

Layer 3 Not Supported with NAC for MBSSID

Layer 3 is not supported with NAC for MBSSID in this release.

Change to Default IP Address Behavior

Cisco IOS Releases 12.3(2)JA and later change the default behavior of access points requesting an IP address from a DHCP server:

When you connect a 1040, 1130, 1140, 1240, 1250, or 1260 series access point or a 1300 series outdoor access point/bridge with a default configuration to a LAN, the access point requests an IP address from a DHCP server and, if it does not receive an address, continues to send requests indefinitely.

Changes to the Default Configuration—Radios Disabled and No Default SSID

In this release, the radio or radios are disabled by default, and there is no default SSID. You must create an SSID and enable the radio or radios before the access point allows wireless associations from other devices. These changes to the default configuration improve the security of newly installed access points.

Clients Using WPA/WPA2 and Power Save May Fail to Authenticate

Certain clients using WPA/WPA2 key management and power save can take many attempts to authenticate or, in some cases, fail to authenticate. Any SSID defined to use authentication key-management WPA, coupled with clients using power save mode and authenticating using WPA/WPA2 can experience this problem.

A hidden configure level command, **dot11 wpa handshake timeout**, can be used to increase the timeout between sending the WPA key packets from the default value (100 ms) to a value between 101 and 2000 ms. The command stores its value in the configuration across device reloads.

Default Username and Password Are *Cisco*

When you open the access point interface, you must enter a username and a password. The default username for administrator login is *Cisco*, and the default password is *Cisco*. Both the username and password are case sensitive.

Some Client Devices Cannot Associate When QoS Is Configured

Some wireless client devices, including Dell Axim handhelds and Hewlett-Packard iPaq HX4700 handhelds, cannot associate to an access point when the access point is configured for QoS. To allow these clients to associate, disable QoS on the access point. You can use the QoS Policies page on the access point GUI to disable QoS or enter this command on the CLI:

ap(config-if)**#no dot11 qos mode**

Some Devices Disassociate When Multiple BSSIDs Are Added or Deleted

Devices on your wireless LAN that are configured to associate to a specific access point based on the access point MAC address (such as client devices, repeaters, hot standby units, or workgroup bridges) might lose their association when you add or delete a multiple BSSID. When you add or delete a multiple BSSID, check the association status of devices configured to associate to a specific access point. If necessary, reconfigure the disassociated device to use the BSSID new MAC address.

Enabling MBSSIDs Without VLANs Disables Radio Interface

If you use the **mbssid** configuration interface command to enable multiple BSSIDs on a specific radio interface but VLANs are not configured on the access point, the access point disables the radio interface. To re-enable the radio, you must shut down the radio, disable multiple BSSIDs, and re-enable the radio.

This example shows the commands that you use to re-enable the radio:

```
AP1260AG(config)# interface d1
AP1260AG(config-if)# shut
AP1260AG(config-if)# no mbssid
AP1260AG(config-if)# no shut
```

After you re-enable the radio, you can enable VLANs on the access point and enable multiple BSSIDs.

Cannot Set Channel on DFS-Enabled Radios in Some Regulatory Domains

Access points with 5-GHz radios configured at the factory for use in Europe, Singapore, Korea, Japan, Taiwan, and Israel now comply with regulations that require radio devices to use Dynamic Frequency Selection (DFS) to detect radar signals and to avoid interfering with them. You cannot manually set the channel on DFS-enabled radios configured for these regulatory domains.

Cisco 7920 Phones Require Firmware Version 1.09 or Later When Multiple BSSIDs Are Enabled

When multiple BSSIDs are configured on the access point, Cisco 7920 wireless IP phones must run firmware version 1.09 or later.

GRE Tunnelling Through WLSM Sometimes Requires MTU Setting Adjustments

If client devices on your wireless LAN cannot use certain network applications or cannot browse to Internet sites, you might need to adjust the MTU setting on the client devices or other network devices. For more information, refer to the Tech Note at this URL:

http://www.cisco.com/en/US/tech/tk827/tk369/technologies_tech_note09186a0080093f1f.shtml

TACACS+ and DHCP IP Address Sometimes Locks Out Administrators

When you configure an access point for TACACS+ administration and to receive an IP address from the DHCP server, administrators might be locked out of the access point after it reboots if the administrator does not have a local username and password configured on the access point. This issue does not affect access points configured with a static IP address. Administrators who have been locked out must regain access by resetting the unit to default settings.

Access Points Do Not Support Loopback Interface

You must not configure a loopback interface on the access point.

Caution Configuring a loopback interface might generate an IAPP GENINFO storm on your network and disrupt network traffic.

Non-Cisco Aironet 802.11g Clients Might Require Firmware Upgrade

Some non-Cisco Aironet 802.11g client devices require a firmware upgrade before they can associate to the 802.11g radio in the access point. If your non-Cisco Aironet 802.11g client device does not associate to the access point, download and install the latest client firmware from the manufacturer's website.

Throughput Option for 802.11g Radio Blocks Association by 802.11b Clients

When you configure the 802.11g access point radio for **best throughput**, the access point sets all data rates to basic (required). This setting blocks association from 802.11b client devices. The **best throughput** option appears on the web-browser interface Express Setup and Radio Settings pages and in the **speed** CLI configuration interface command.

Use Auto for Ethernet Duplex and Speed Settings

We recommend that you use **auto**, the default setting, for both the speed and duplex settings on the access point Ethernet port. When your access point receives inline power from a switch, any change in the speed or duplex settings that resets the Ethernet link reboots the access point. If the switch port to which the access point is connected is not set to **auto**, you can change the access point port to **half** or **full** to correct a duplex mismatch, and the Ethernet link is not reset. However, if you change from **half** or **full** back to **auto**, the link is reset, and, if your access point receives inline power from a switch, the access point reboots.

Note The speed and duplex settings on the access point Ethernet port must match the Ethernet settings on the port to which the access point is connected. If you change the settings on the port to which the access point is connected, change the settings on the access point Ethernet port to match.

Use force-reload Option with archive download-sw Command

When you upgrade access point or bridge system software by entering the **archive download-sw** command on the CLI, you must use the **force-reload** option. If the access point or bridge does not reload the flash memory after the upgrade, the pages in the web-browser interface might not reflect the upgrade. This example shows how to upgrade system software by using the **archive download-sw** command:

```
AP# archive download-sw /force-reload /overwrite tftp://10.0.0.1/image-name
```

Radio MAC Address Appears in ACU

When a Cisco Aironet client device associates to an access point running IOS software, the access point MAC address that appears on the Status page in the Aironet Client Utility (ACU) is the MAC address for the access point radio. The MAC address for the access point Ethernet port is printed on the label on the back of the access point.

Radio MAC Address Appears in Access Point Event Log

When a client device roams from an access point (such as access point *alpha*) to another access point (access point *bravo*), a message appears in the event log on access point alpha stating that the client roamed to access point bravo. The MAC address that appears in the event message is the MAC address for the radio in access point bravo. The MAC address for the access point Ethernet port is on the label on the back of the access point.

Mask Field on IP Filters Page Behaves the Same As in CLI

In Cisco IOS Release 12.2(8)JA and later, the mask that you enter in the Mask field on the IP Filters page in the access point GUI behaves the same way as a mask that you enter in the CLI. If you enter 255.255.255.255 as the mask, the access point accepts any IP address. If you enter 0.0.0.0, the access point looks for an exact match with the IP address that you entered in the IP Address field.

Repeater Access Points Cannot Be Configured as WDS Access Points

Repeater access points can participate in WDS, but they cannot provide WDS. You cannot configure a repeater access point as a main WDS access point, and if a root access point becomes a repeater in fallback mode, it cannot provide WDS.

Cannot Perform Link Tests on Non-Cisco Aironet Client Devices and on Cisco Aironet 802.11g Client Devices

The link test feature on the web-browser interface does not support non-Cisco Aironet client devices nor Cisco Aironet 802.11g client devices.

Corrupt EAP Packet Sometimes Causes Error Message

During client authentication, the access point sometimes receives a corrupt EAP packet and displays this error message:

```
Oct  1 09:00:51.642 R: %SYS-2-GETBUF: Bad getbuffer, bytes= 28165
-Process= "Dot11 Dot1x process", ipl= 0, pid= 32
-Traceback= A2F98 3C441C 3C7184 3C604C 3C5E14 3C5430 124DDC
```

You can ignore this message.

When Cipher Is TKIP Only, Key Management Must Be Enabled

When you configure TKIP-only cipher encryption (not TKIP + WEP 128 or TKIP + WEP 40) on any radio interface or VLAN, every SSID on that radio or VLAN must be set to use WPA or CCKM key management. If you configure TKIP on a radio or VLAN but you do not configure key management on the SSIDs, client authentication fails on the SSIDs.

Cisco CKM Supports Spectralink Phones

Cisco CKM (CCKM) key management is designed to support voice clients that require minimal roaming times. CCKM supports only Spectralink and Cisco 7920 Version 2.0 Wireless Phones. Other voice clients are not supported.

Non-Cisco Aironet Clients Sometimes Fail 802.1x Authentication

Some non-Cisco Aironet client adapters do not perform 802.1x authentication to the access point unless you configure Open authentication with EAP. To allow both Cisco Aironet clients using LEAP and non-Cisco Aironet clients using LEAP to associate using the same SSID, you might need to configure the SSID for both Network EAP authentication and Open authentication with EAP.

Pings and Link Tests Sometimes Fail to Clients with Both Wired and Wireless Network Connections

When you ping or run a link test from an access point to a client device installed in a PC running Microsoft Windows 2000, the ping or link test sometimes fails when the client has both wired and wireless connections to the LAN. Microsoft does not recommend this configuration. For more information, refer to Microsoft Knowledge Base article 157025 at this URL:

http://support.microsoft.com/default.aspx?scid=kb;en-us;157025&Product=win2000

Layer 3 Mobility Not Supported on Repeaters and Workgroup Bridges

Repeater access points and workgroup bridges cannot associate to an SSID configured for Layer 3 mobility. Layer 3 mobility is not supported on repeaters and workgroup bridges.

WLSM Required for Layer 3 Mobility

You must use a Wireless LAN Services Module (WLSM) as your WDS device in order to properly configure Layer 3 mobility. If you enable Layer 3 mobility for an SSID and your WDS device does not support Layer 3 mobility, client devices cannot associate using that SSID.

The Cisco Aironet 1250 and 1140 Series Access Points Have a Hardware Limitation

The beacons on the Cisco Aironet 1250 and 1140 Access Points can only have output at intervals that are multiples of 17 milliseconds. When these access points are configured for a 100 millisecond beacon interval, they transmit beacons every 102 milliseconds. Similarly, when the beacon interval is configured for 20 milliseconds, these access points transmit beacons every 17 milliseconds.

Potential RFC 3748 Violation

When the following command is configured under the SSID settings (for LEAP authentication):

```
authentication client username <WORD> password [0 | 7] <LINE>
```

If the first access-challenge returned by the Radius server after the access-request from the access point is not for the LEAP method but for EAP-MD5, the acces point violates RFC 3748.

Instead of sending an EAP NAK requesting LEAP authentication, the access point sends the user's credentials with EAP-MD5 and drops the derived keys, since it cannot read the EAP-MD5 from the access-accept.

This violates RFC 3748.

The workaround for this is to use the commands `dot1x credentials` and `dot1x eap profile` for LEAP authentication.

For configuration procedures, see the *Cisco IOS Software Configuration Guide for Cisco Aironet Access Points*.

Caveats

This section lists Open Caveats and Resolved Caveats for access points and bridges in Cisco IOS Release 15.2(2)JA. For your convenience in locating caveats in Cisco's Bug Toolkit, the caveat titles listed in this section are drawn directly from the Bug Toolkit database. These caveat titles are not intended to be read as complete sentences because the title field length is limited. In the caveat titles, some truncation of wording or punctuation might be necessary to provide the most complete and concise description. The only modifications made to these titles are as follows:

- Commands are in boldface type.
- Product names and acronyms may be standardized.
- Spelling errors and typos may be corrected.

Note If you are a registered cisco.com user, view Bug Toolkit on cisco.com at the following website:

http://tools.cisco.com/Support/BugToolKit/

To become a registered cisco.com user, go to the following website:

http://www.cisco.com/RPF/register/register.do

Open Caveats

Table 1 lists caveats that are open in Cisco IOS Release 15.2(2)JA.

Table 1 Open Caveats

Identifier	Headline
CSCti02690	11n AP Ethernet link problem when setting both speed and duplex
CSCtq74792	WGB uplink radio getting stuck due to wlccp on WGB
CSCtx18257	Autonomous AP crash due to check heap process
CSCtx95008	Autonomous: buffered frames not TX on power save client poll
CSCty13240	HTTP upgrade and downgrade is not working
CSCub42170	AP1142 VLAN setting error for Mozilla Firefox: "ERROR:VLAN doesn't exist"
CSCub58596	Crash & traceback observed on WGB when Associating to ROOT
CSCub74690	1261 IOS AP crash

Resolved Caveats

Table 2 lists caveats that are resolved in Cisco IOS Release 15.2(2)JA.

Table 2 Resolved Caveats

Identifier	Headline
CSCth42489	Multicast traffic stops after fast roaming - incorrect AP client count
CSCtr46123	The Cisco IOS Software Network Address Translation (NAT) feature contains two denial of service (DoS) vulnerabilities in the translation of IP packets. The vulnerabilities are caused when packets in transit on the vulnerable device require translation. Cisco has released free software updates that address these vulnerabilities. This advisory is available at the following link: http://tools.cisco.com/security/center/content/CiscoSecurityAdvisory/cisco-sa-20120926-nat
CSCtu24972	3500 / 3502 / 1260 AP WDT resets without crash info
CSCty19214	WGB doesn't update neighborAP details when vlan is configured
CSCty51014	Failed to allocate key management output packet" seen wgb/UWGB
CSCty68030	3500/1260: Upgrade bootloader automatically from IOS
CSCty91589	Failed to configure service-policy on radio interface
CSCtz78117	Crash & traceback observed on AP when assoc with client

If You Need More Information

If you need information about a specific caveat that does not appear in these release notes, you can use the Cisco Bug Toolkit to find select caveats of any severity. Click this URL to browse to the Bug Toolkit:

http://tools.cisco.com/Support/BugToolKit/

(If you request a defect that cannot be displayed, the defect number might not exist, the defect might not yet have a customer-visible description, or the defect might be marked Cisco Confidential.)

Troubleshooting

For the most up-to-date, detailed troubleshooting information, refer to the Cisco TAC website at http://www.cisco.com/cisco/web/support/index.html. Click **Technology Support**, choose **Wireless** from the menu on the left, and click **Wireless LAN**.

Obtaining Documentation, Obtaining Support, and Security Guidelines

For information on obtaining documentation, obtaining support, providing documentation feedback, security guidelines, and also recommended aliases and general Cisco documents, see the monthly *What's New in Cisco Product Documentation*, which also lists all new and revised Cisco technical documentation, at:

http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html

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