Release Notes for the Nortel Networks Wireless LAN 2220/2221 Access Point Software Release 1.3.0.0

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Statement of Conditions

Countries of Operation

This product may be operated in the following European Community countries: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom. Please refer to the user guide for the configuration requirements for the radio operation in applicable European countries.

Introduction

These release notes for the Nortel Networks Wireless LAN Access Point 2220/ 2221 provide information about software and operational issues not included in the Nortel Networks Wireless LAN Access Point 2220/2221 documentation software version 1.3.0.0. For a list of Access Point 2220/2221 documentation, refer to "Related publications" on page 17.

The Nortel Networks Wireless LAN Access Point 2220/2221 is part of the Nortel Networks Wireless LAN Series 2200 product line.

These release notes cover the following topics:

- "New features," next
- "Supported hardware" on page 5
- "Software compatibility matrix" on page 5
- "Upgrading the Access Point 2220/2221 software" on page 6
- "Downgrading the Access Point 2220/2221 software" on page 9
- "Downloading the latest MIB files" on page 10
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New features

The following new features are offered with Nortel Networks Wireless LAN Access Point 2220/2221 Software Release 1.3.0.0:

- **Basic rate and supported rate configuration enhancements**—Both basic and supported base rates can be configured. Rates can be added and removed in pre-set groupings or individually.

- **Nortel Networks customization data file**—aspects of the Access Point 2220/2221 functionality can be changed using the customization data file without requiring a new firmware release. If local regulations change to allow new radio channels, a customization file could enable those channels on the Access Point 2220/2221.

> **Note:** Do not edit or in any way alter this file.

- **Closed System**—when enabled, the Access Point 2220/2221 will not include the SSID in any beacons that are transmitted.
- **World Mode**—the Access Point 2220/2221 supports the 802.11d global harmonization group protocol. When World Mode is enabled, the Access Point 2220/2221 will broadcast the current country-code configuration. 802.11d-conforming mobile clients will automatically be configured for the proper power and channel settings for the specified country.
- **Failover Control**—when enabled, the Access Point 2220/2221 will detect when the access point's LAN connection has failed. It will refuse mobile connections, allowing mobile clients to associate with other available access points.
- **Wi-Fi Protected Access (WPA)**—with WPA support, the Access Point 2220/ 2221 offers a model for security that addresses weaknesses found in WEP. For compatibility with legacy mobile clients, the Access Point 2220/2221 can support both WPA and WEP in the same environment.

  The Access Point 2220/2221 supports both WPA authentication over 802.1x (Enterprise WPA) and WPA using a pre-shared key (Home WPA).

- **Protected Extensible Authentication Protocol (PEAP)**—PEAP allows authentication between wireless clients and a RADIUS or IAS server while protecting the Extensible Authentication Protocol (EAP) negotiation between the client and server.
- **Virtual LAN (VLAN)**—VLAN support allows the association of mobile clients to VLANs, tagging traffic appropriately as it leave the access point.
- **Quality of Service (QoS)**—QoS support offers the capability to separate traffic into one of eight priority queues. Traffic can be prioritized by:
  — MAC source address
  — MAC destination address

    — Ethernet protocol type

    — 802.1p tag value

For more information about these features, refer to *Using the Nortel Networks Wireless LAN Access Point 2220/2221* and *Nortel Networks Wireless LAN Access Point 2220/2221 Command Line Interface.*

Supported hardware

Nortel Networks Wireless LAN Access Point 2220/2221 Software Release 1.3.0.0 supports the following access points:

- Nortel Networks Wireless LAN Access Point 2220
- Nortel Networks Wireless LAN Access Point 2221

Software compatibility matrix

The following section discusses the components for Nortel Networks Wireless LAN Access Point 2220/2221 software releases and covers the following topics:

- "Software Release 1.3.0.0 components," next
- "Software Release 1.2.1.0 components" on page 6
- "Software Release 1.2.0.0 components" on page 6
- "Software Release 1.1.16 components" on page 6

Software Release 1.3.0.0 components

The components for the Nortel Networks Wireless LAN Access Point 2220/2221 Software Release 1.3.0.0 are:

- Access Point 2220/2221 Runtime Image Software Version 1.3.0.0 (w222a1300.bin)
- Access Point 2220/2221 Management Information Base (MIB) definition files (ieee802dot11.mib, ntwlanap006.mib, synro199.mib)

Software Release 1.2.1.0 components

The components for the Nortel Networks Wireless LAN Access Point 2220/2221 Software Release 1.2.1.0 are:

- Access Point 2220/2221 Runtime Image Software Version 1.2.1.0 (w222a1210.bin)
- Access Point 2220/2221 Management Information Base (MIB) definition files (ieee802dot11.mib, ntwlanap005.mib, synro199.mib)

Software Release 1.2.0.0 components

The components for the Nortel Networks Wireless LAN Access Point 2220/2221 Software Release 1.2.0.0 are:

- Access Point 2220/2221 Runtime Image Software Version 1.2.0.0 (w222a1200.bin)
- Access Point 2220/2221 Management Information Base (MIB) definition files (ieee802dot11.mib, ntwlanap004.mib, synro199.mib)

Software Release 1.1.16 components

The components for the Nortel Networks Wireless LAN Access Point 2220/2221 Software Release 1.1.16 are:

- Access Point 2220 Runtime Image Software Version 1.1.16 (ntl-img.bin)
- Access Point 2220/2221 Management Information Base (MIB) definition files (nortel_80211.mib)

Upgrading the Access Point 2220/2221 software

This section describes the process for upgrading your Access Point 2220/2221 software using the web interface. For information on upgrading the Access Point 2220/2221 using the command line interface, refer to *Nortel Networks Wireless LAN Access Point 2220/2221 Command Line Interface.*

This section includes the following topics:

- "Obtaining the latest software image file," next
- "Downloading the image file to the Access Point 2220/2221" on page 7

Obtaining the latest software image file

To upgrade the Access Point 2220/2221 software, you must first download the latest software image file from the Nortel Networks support site. To download the image file:

1   Using your Web-browser, go to the Nortel Networks support site at www.nortelnetworks.com/support.

2   Once at the support site, select Wireless LAN from the Product Family Section.

3   At the Wireless LAN page, click on the software link under the model of your Access Point 2220/2221.

4   Download the image file to your management PC or workstation.

Downloading the image file to the Access Point 2220/2221

Once you have obtained the latest software image file, you must download the file to the Access Point 2220/2221. To download the image file using the web interface:

1   Open the Advanced Setup > Administration screen (see Figure 1 and Figure 2).

Figure 1   Administration screen (1 of 2)
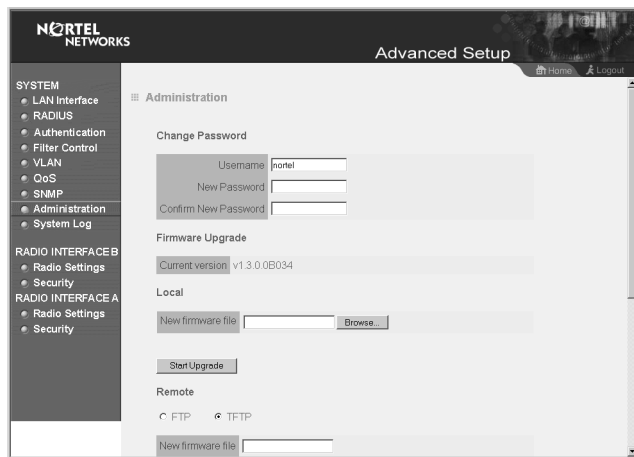
Figure 2   Administration screen (2 of 2)

2   Click "Browse" and locate the new software image file.

3   Click "Start Upgrade" to begin the upgrade process. The new software image file will be downloaded to the Access Point 2220/2221.

4   Follow the onscreen instructions and click "Reboot" when the file has been copied to the Access Point 2220/2221.

The Access Point 2220/2221 will reset and the upgrade will be complete.

If you wish to use an FTP or TFTP server to download the software image to the Access Point 2220/2221, refer to *Using the Nortel Networks Wireless LAN Access Point 2220/2221.*

Downgrading the Access Point 2220/2221 software

If it becomes necessary to downgrade the Access Point 2220/2221 software to a previous version, the procedure is similar to "Upgrading the Access Point 2220/2221 software" on page 6. This section describes the downgrade process and contains the following topics:

- "Obtaining the desired software image file," next
- "Downloading the image file to the Access Point 2220/2221" on page 9

Obtaining the desired software image file

If you do not already have the Access Point 2220/2221 software image file for the version you wish to install, download the image file from the Nortel Networks support site. To download the image file:

1   Using your Web-browser, go to the Nortel Networks support site at www.nortelnetworks.com/support.

2   Once at the support site, select Wireless LAN from the Product Family Section.

3   At the Wireless LAN page, click on the software link under the model of your Access Point 2220/2221.

4   Download the desired image file to your management PC or workstation.

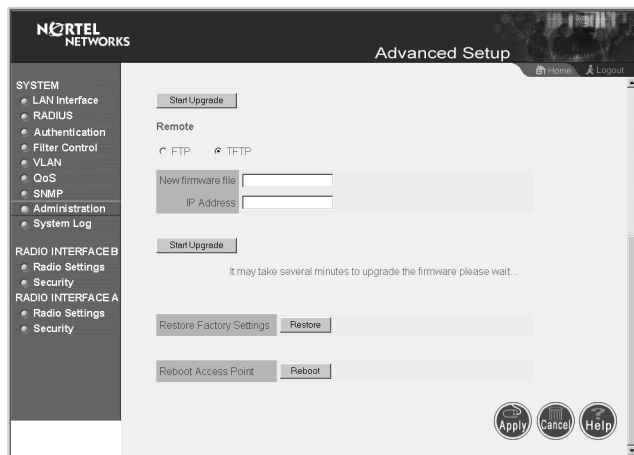## Downloading the image file to the Access Point 2220/2221

Once you have obtained the desired software image file, you must download the file to the Access Point 2220/2221. To download the image file using the web interface:

1   Open the Advanced Setup > Administration screen (see Figure 1 and Figure 2).

2   Click "Browse" and locate the software image file.

3   Click "Start Upgrade" and the software image file will be downloaded to the Access Point 2220/2221.

4   Follow the onscreen instructions and click "Reboot" when the file has been copied to the Access Point 2220/2221.

The Access Point 2220/2221 will reset and the downgrade will be complete.

If you wish to use an FTP or TFTP server to download the software image to the Access Point 2220/2221, refer to *Using the Nortel Networks Wireless LAN Access Point 2220/2221.*

Downloading the latest MIB files

To use SNMP to manage your Access Point 2220/2221, you must first download the latest Management Information Base (MIB) files from the Nortel Networks support site. To download the MIB files:

1   Using your Web-browser, go to the Nortel Networks support site at www.nortelnetworks.com/support.

2   Once at the support site, select Wireless LAN from the Product Family Section.

3   At the Wireless LAN page, click on the software link under the model of your Access Point 2220/2221.

4   Download the zip file containing the new MIBs and extract the MIB files onto your management PC or workstation.

5   Using your network management application, such as Optivity NMS, compile or integrate the new MIB files.

The MIB files should be added to your network management application in the following order:

•   synro199.mib
•   ieee802dot11.mib
•   ntwlanap006.mib

These are the only MIBs supported in this release.

You may now query the Access Point 2220/2221 MIB objects using your network management application.

VLANs and the default factory image

If you have VLANs enabled on your Access Point 2220/2221 and it is reset to factory defaults (either intentionally or because of a failed upgrade) you must ensure that the switch on the LAN port is configured to accept untagged traffic.

If the Access Point 2220/2221 boots up with the default image (due to a corrupt primary image) the factory default image does not support VLANs, so traffic that was tagged before the default will no longer be tagged. (WA6101-26B-00373)

Known issues

The following sections discuss the known issues with the Access Point 2220/2221.

Known issues with software version 1.3.0.0

The following section discusses the known issues with software version 1.3.0.0 for the Access Point 2220/2221.

- The autotopology packet sent by the Access Point 2220 incorrectly reports the model as being Access Point 2221. As a result, in the view in Nortel Networks OSM File/Inventory manager, under Device Families, the WLAN AP Software reports the device as being a WLAN model 2221 instead of WLAN 2220. The correct model number is indicated in the Description field. (WA6101-26B-00825)
- The OIDs contained in the following traps are not correct: warm start, cold start, link up and link down (WA6101-26B-00828, WA6101-26B-00829)
- During a telnet session, the output from the command `show basic-rate-set` is not formatted correctly. The workaround is to use the command `show interface wireless a` or `show interface wireless b` to display the basic rate set for the wireless interface. (WA6101-26B-00827)

- Some MIB browser tools may indicate that some objects have the incorrect type. These warnings may be safely ignored. The values returned are correct. (WA6101-26B-00816, WA6101-26B-00813)

- If the ethernet interface is disabled, then re-enabled, and then 802.11a wireless interface is disabled, the ethernet interface will be disabled as well. The 802.11a wireless interface must be re-enabled to re-enable the ethernet interface. (WA6101-26B-00822)

- When the AP's native VLAN is changed dynamically, the VLAN information displayed in the "show station" command will not be correct until the Access Point 2220/2221 is rebooted. (WA6101-26B-00821)

- Setting the ntWlanRestartControl mib object to coldBoot(3) will reboot the AP, but will not reset it to factory defaults as described by the mib file. Use the CLI command "reset configuration" to reset the AP back to factory defaults. (WA6101-26B-00818)

- When using the web interface, it is possible to configure the WEP Authentication Type to Shared Key and also configure the WPA Configuration mode to Required. This configuration will not work, but no error message is displayed to indicate the illegal configuration. (WA6101-26B-00809)

- When using the web interface, when the Data Encryption option is disabled, encryption related options still appear in the web page. These options will not take effect when Data Encryption is disabled. (WA6101-26B-00808)

- When a telnet session is disconnected abnormally, the Access Point 2220/2221 will not immediately close the session. There is a twenty minute timeout before an inactive telnet session is closed. (WA6101-26B-00796)

- In WPA supported mode, which allows both WEP and WPA clients, some vendors' mobile units may not be able to use WEP key 1. The workaround is to use key 2, 3 or 4 for WEP clients. (WA6101-26B-00726, WA6101-26B-00728, WA6101-26B-00729)

- The SNMP object ipOutNoRoutes is not supported in this release. (WA6101-26B-00714)

- Using the web interface, it is not possible to set an ending month larger than the starting month when manually configuring daylight savings time on the Access Point 2220/2221. Because of this limitation, please use the CLI to configure daylight savings time. (WA6101-26B-00699)

- The Access Point 2220/2221 will forward multicast traffic to mobile clients on different VLANs when using 802.1x authentication. (WA6101-26B-00666)

- An MU_association trap may sometimes be sent to the trap manager even when the MU_association trap is not enabled. (WA6101-26B-00663)

- It is not possible to clear the password on the Access Point 2220/2221 using the web interface. To clear the password, you must use the CLI. (WA6101-26B-00618)

- When using the CLI command show system, the Access Point 2220/2221 will display VLAN settings, even when VLANs are disabled on the AP. (WA6101-26B-00568)

- When using the web interface to enter security information, such as WEP keys and WPA configuration, the information will be transmitted using http, which is not encrypted. Nortel Networks recommends using a direct console connection to the Access Point 2220/2221 when making security changes. (WA6101-26B-00560)

- You cannot clear the system password using the web interface. To clear the system password, you must use the CLI. (WA6101-26B-00618)

- If you disable the Ethernet port on the Access Point 2220/2221 and the access point is rebooted, you will have to once again disable the Ethernet port. (WA6101-26B-00400)

- If a mobile client does not set the PPPoE IP allocation mode to automatic, the client cannot receive a DNS IP address from the PPPoE server. (Q00732021, WA6101-B-26B-00170)

- The PPPoE static IP allocation mode does not work correctly in this release. If the mobile client is set to static IP allocation and the PPPoE server is set to accept only static remote IP connections, the mobile client cannot connect to the PPPoE server. (Q00732022, WA6101-B-26B-00169)

- Some portions of the 802.11b MIB have not been completely implemented in this release. (Q00732045, WA6101-B-26B-00168, WA6101-B-26B-00167, WA6101-B-26B-00166, WA6101-B-26B-00165, WA6101-B-26B-00164, WA6101-B-26B-00163, WA6101-B-26B-00127))

- The SNMP object ifDescr returns the values listed in Table 1 when queried. (Q00732063, NA0047)

Table 1   Values returned from ifDescr object

Returned value	Corresponding Interface
lo0	Loopback interface
dp0	Ethernet interface
ndc1	Wireless Interface B
ar2	Wireless Interface A

- Although it appears that you can change the value for SNMP object IpDefaultTTL, the system retains the default setting. (Q00732064, NA0057)
- Setting Ethernet Type Filtering to deny NetBEUI does not disable the NetBEUI protocol. (Q00732071, NA0110)
- The port indices are not labeled consistently between rfc1213.mib and ntwlanap006.mib. (Q00732074, NA0195, NTA-0044)
- When you power-cycle the Access Point 2220/2221, you must reset the clock using either the CLI or the Web interface when not using an SNTP server.
- Nortel Networks recommends using Internet Explorer version 5.5 or higher. (NTA0046, NTA-Q00668945)
- The Simple Network Time Protocol (SNTP) implementation allows incorrect time stamps in the syslog for events that occur after reset, but before the device has received the SNTP update. (NTA-Q00635669)
- When Auto Channel Select (available only on the 802.11a radio) is enabled, you must reboot the Access Point 2220 in order for the parameter to function. The 802.11a radio will only autoselect an operating channel during the bootup process. (NTA-Q00643794)
- Syslog entries do not correctly document events when changing the 802.11b radio preamble from short to long and back to short. (NTA-Q00646916)
- If a MIB walk is done with some SNMP-based tools, you may see an error message after reaching the last MIB object. (NTA-Q00660424)

Resolved issues

The following issues are resolved in Nortel Networks Wireless LAN Access Point 2220/2221 Software Release 1.3.0.0:

- In previous releases, if a PC running Windows NT 4.x was connected to the console port of the Access Point 2220/2221, rebooting the PC would also reset the Access Point 2220/2221. This has been resolved in release 1.3.0.0. (Q00731815, WA6101-B-26B-00176)
- When changing the password for the Access Point 2220/2221, the new password is no longer lost when the unit is reset. (Q00732012, WA6101-B-26B-00174)
- When a telnet connection to the Access Point 2220/2221 is disconnected, the Access Point 2220/2221 will now immediately close the telnet session. (Q00732019, WA6101-B-26B-00172)
- The use of the TAB key is now supported in the CLI in this release. (Q00732020, WA6101-B-26B-00171)
- In previous releases, the web interface would only allow you to create a password with the maximum length of 10 characters. You may now create a password with a maximum length of 16 characters. (Q00732047, WA6101-B-26B-00141)
- In previous releases, if you changed the IP address of the Access Point 2220/2221 from dynamic to static, the unit would revert to the system default value for the default gateway. This has been resolved in release 1.3.0.0. (Q00732051, WA6101-B-26B-00125)
- The CLI is no longer case-sensitive. (Q00732053, WA6101-B-26B-00100)
- Downloading firmware and configuration files using SNMP now supported. (Q00732054, WA6101-B-26B-00021)
- In previous releases, no more than 200 characters were supported in any SNMP variables. This has been resolved in release 1.3.0.0. (Q00732055, WA6101-B-26B-00010)
- The web interface Help page now correctly states the range for RTS threshold size. (Q00732060, NA0026)
- In previous releases, when you power-cycled or performed a warm boot on the Access Point 2220/2221, the Access Point 2220/2221 would not send trap messages. This has been resolved in release 1.3.0.0. (Q00732062, NA0045)
- The SNMP object IpInReceives now returns the correct value when queried. (Q00732066, NA0058)

- The SNMP counter objects in the IP table MIB (such as IpInReceive and IpInHderror) now return the correct values when queried. (Q00732068, NA0089)

- 802.1x authentication no longer fails during periods of heavy traffic. (Q00732069, NA0096)

- In previous releases, the Access Point 2220 sometimes displayed the incorrect key type for associated 802.1x clients. This has been resolved in release 1.3.0.0. (Q00732072, NA0178)

- In previous releases, the Access Point 2220/2221 did not support 802.1x reauthentication when the reauthentication time had expired during a roaming event when IAPP was enabled. This has been resolved in release 1.3.0.0. (Q00732073, NA0188)

- The SNMP object Privacy now returns the correct value when queried. (Q00732075, NA0196)

- In previous releases, you could not configure a password with two characters or less using the web interface. This has been resolved in release 1.3.0.0. (Q00732076, NA0203)

- The SNMP object portSpeedDpxStatus now returns the correct value when queried. (Q00732078, NTA-0041)

- In previous releases, when the Ethernet interface was disabled and reenabled, the DHCP lease was not renewed. This has been resolved in release 1.3.0.0. (Q00732079, NTA-0052)

- When the Ethernet interface is disabled and reenabled, the ARP cache entries are now properly deleted. (Q00732080, NTA-0051)

- Heavy traffic conditions will no longer cause a delay while using the web interface to manage the Access Point 2220/2221. (NTA-Q00627369 and NTA-Q00635538)

- In previous releases, the Station Configuration table on the Status>Stations Status page of the Web interface sometimes incorrectly showed a not allowed WEP client as "forwarding allowed." The display has been corrected for release 1.3.0.0. (NTA-Q00635672)

- When configuring the country code for the Access Point 2220/2221, the code will now properly take effect after the unit is reset. (NTA-Q00651603)

- In previous releases, it was not possible to set the 802.11a radio to Auto Channel Select using the CLI. This has been resolved in release 1.3.0.0. (NTA-Q00663245)

- In previous releases, it was recommended to disable the radio (802.11a or 802.11b) before making any changes to that radio's configuration. This has been resolved in release 1.3.0.0. (NTA-Q00668060)

The following issues are resolved in Nortel Networks Wireless LAN Access Point 2220/2221 Software Release 1.2.0.0:

- The Access Point 2220/2221 no longer restricts static key configuration for WEP to three per radio. You may now configure four static WEP keys for each radio interface. (NTA-Q00626098)
- Upgrading or downgrading the Access Point 2220/2221 software image no longer resets the password and username to the factory default settings. (Q00732017, WA6101-B-26B-00173)
- The Access Point 2220/2221 now allows passwords up to 20 characters in length. (Q00732048, WA6101-B-26B-00140)
- You can now use up to 254 characters each for the SNMP host name, location, and server contact. (Q00732061, NA0038)
- The `closed-system` command is correctly supported in this release.

Related publications

For more information about the Nortel Networks Wireless LAN Series 2200 products, refer to:

- *Using the Nortel Networks Wireless LAN Access Point 2220/2221*
- *Installing and Using the Nortel Networks Wireless LAN Mobile Adapter 2201*
- *Nortel Networks Wireless LAN Access Point 2220/2221 Command Line Interface*
- *Country-specific Configuration for the Nortel Networks Wireless LAN Access Point 2220/2221*

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How to get help

If you purchased a service contract for your Nortel Networks product from a distributor or authorized reseller, contact the technical support staff for that distributor or reseller for assistance.

If you purchased a Nortel Networks service program, contact Nortel Networks Technical Support. To obtain contact information online, go to the www.nortelnetworks.com/cgi-bin/comments/comments.cgi URL, then click on Technical Support.

From the Technical Support page, you can open a Customer Service Request online or find the telephone number for the nearest Technical Solutions Center. If you are not connected to the Internet, you can call 1-800-4NORTEL (1-800-466-7835) to learn the telephone number for the nearest Technical Solutions Center.

An Express Routing Code (ERC) is available for many Nortel Networks products and services. When you use an ERC, your call is routed to a technical support person who specializes in supporting that product or service. To locate an ERC for your product or service, go to the http://www.nortelnetworks.com/help/contact/erc/index.html URL.