

vWLAN & BSAP

R3.3.0

Release Notes

To the Holder of this Document

This document is intended for the use of ADTRAN customers only for the purposes of the agreement under which the document is submitted, and no part of it may be used, reproduced, modified or transmitted in any form or means without the prior written permission of ADTRAN.

The contents of this document are current as of the date of publication and are subject to change without notice.

Trademark Information

“ADTRAN” and the ADTRAN logo are registered trademarks of ADTRAN, Inc. Brand names and product names included in this document are trademarks, registered trademarks, or trade names of their respective holders.

Disclaimer of Liability

The information or statements given in this document concerning the suitability, capacity, or performance of the mentioned hardware or software products are given “as is”, and any liability arising in connection with such hardware or software products shall be governed by ADTRAN’s standard terms and conditions of sale unless otherwise set forth in a separately negotiated written agreement with ADTRAN that specifically applies to such hardware or software products.

To the fullest extent allowed by applicable law, in no event shall ADTRAN be liable for errors in this document for any damages, including but not limited to special, indirect, incidental or consequential, or any losses, such as but not limited to loss of profit, revenue, business interruption, business opportunity or data, that may arise from the use of this document or the information in it.



©2019 ADTRAN, Inc.
All Rights Reserved.

Table of Contents

1	Introduction	4
2	Supported Platforms	4
3	Required BSAP Firmware	4
4	Wireless Regulatory Compliance	4
5	System Notes	5
6	Features and Enhancements	5
7	Fixes	6
8	Errata	6
9	Release Specific Upgrade Instructions	11
10	Warranty and Contact Information	12
10.1	Warranty	12
10.2	Contact Information	12

1 Introduction

The 3.3.0 code releases for vWLAN and BSAP are major system releases that add new features and address customer issues that were uncovered in previous code releases.

These releases are generally available code. Results obtained during internal testing have been evaluated and the code has been determined to be ready for general availability. Caveats discovered during testing but not addressed in this build are listed in “[Errata](#)” on page 6.

Configuration guides, white papers, data sheets, and other documentation can be found on ADTRAN's Support Forum, <https://supportforums.adtran.com>. The contents of these release notes will focus on the platforms listed below.

2 Supported Platforms

The following models are supported in vWLAN 3.3.0.

- vWLAN Rackmount Appliance (1700900F2)
- vWLAN Virtual Appliance for VMware ESX/ESXi, 5.X, and 6.X

The following models are supported in BSAP 3.3.0



NOTE

The BSAP 18XX series is not supported on version 3.2.0 and higher. If you are still using BSAP 18XX series devices, you must stay on version 3.1.0 or lower.

- BSAP 1920/1925
- BSAP 1930/1935
- BSAP 1940
- BSAP 2020
- BSAP 2030/2035/2135
- BSAP 3040/3045



NOTE

Some older AP models may not support all features in a release or past releases. For information on what your AP model supports, please consult the [AP Feature Matrix](#).

3 Required BSAP Firmware

Due to BSAP and vWLAN firmware versions being mutually exclusive, the associated version of BSAP firmware for vWLAN 3.3.0 is version 3.3.0.

4 Wireless Regulatory Compliance

Based on United States FCC and European DFS and ETSI regulations, ADTRAN validates the country in which the APs are being operated. This prevents the ADTRAN equipment from accidentally being used in an improper configuration.

When customers request AP licenses, they must specify the country where the AP will be deployed and operated. Note that a single vWLAN can control and manage APs in different countries and regulatory domains – and the channel and power settings are regulated by the country where the individual AP is deployed and operated.

Before the license is installed, the AP is in the platform and not associated to any domain, so the AP's radios are disabled by default. When the licenses are uploaded, the country code is then applied to licensed BSAPs. Allowed channels and power levels are determined by the country and the platform, and once the AP is placed into a domain, it will scan the channels to discover neighboring APs and choose a valid channel.

5 System Notes

- For large vWLAN Servers with 750+ APs, 12,500 Clients, or 25 domains, 16GB of server memory is required.
- If utilizing post-login redirection, note that as of Android release 5.0 many Android phones do not keep the Captive Network Assistant Window open after authentication causing the post-login redirect to fail.
- Due to a change in Samsung Galaxy mobile device behavior, any Samsung Galaxy phones on Android 9.0 or later may not reconnect to a captive portal network automatically after being de-authenticated as part of the transition process to the final role. **Workaround:** Create a new role, select the Un-Registered role type, and then select the same location users will be placed into after authentication. Push this change out to the APs (the role will not be connected to any SSID as it is a dummy role). The phones will automatically reconnect after this change.
- The following APs have had their Hardware Revision updated and required Version 3.3.0 to function:
 - ◆ BSAP 304X Revision F
 - ◆ BSAP 2020 Revision C
 - ◆ BSAP 203X Revision R
 - ◆ BSAP 2135 Revision D

The Hardware Revision can be found on the label on the box and on the physical AP.

The APs may ship with version 3.2.1 by default. If received on this version, you must upgrade to version 3.3.0 for them to function properly. Attempting to downgrade them to 3.2.0 will present an error message.

6 Features and Enhancements

This section highlights major features and enhancements in vWLAN 3.3.0.

- ETSI DFS support 203X, 213X, 304X Series
- FCC DFS Support for 202X, 203X, and 213X Series
- Added a client hostname, if provided via DHCP, to Top Client Widgets
- Added RADIUS Proxy support in the BSAP 3040
- Allow per user shaper in roles to go up to 1Gbps
- Simplified the Setup Wizard
- Reworked the SSID page to show the correct fields and align properly

7 Fixes

This section highlights major bug fixes in vWLAN 3.3.0

- Fixed an issue in which the **Reset Password** link directed users to an IP address instead of a configured hostname.
- Fixed an issue on the **Status > APs** page, where selecting the number in the **Total Clients** column did not take the user to a page showing the correct number of clients associated to that AP.
- Fixed an issue in which the timezone could not be changed in the default AP template.
- Removed an empty field that was presented from the **Destination** drop down menu when configuring a role.
- Fixed an issue preventing the most recent 7 days of Client Usage Over Time information to be properly displayed in that dashboard widget.
- Fixed an issue in which BSAP 1920s could become stuck in a down state and required a manual reboot to restore.
- Fixed an issue in which vWLAN failed to set the cipher when the Setup Wizard was used to create a PSK SSID.
- Fixed an issue in which AP adjacency data was not properly communicated from the APs to vWLAN when running vWLAN on KVM.

8 Errata

The following is a list of errata that still exist in vWLAN 3.3.0.

- vWLAN is not matching correctly on radius attributes if they are only numbers.
- If the shared secret for Radius Mac Authentication is too long (64 characters), authentication will fail.
- vWLAN fails to properly process leading white space in an uploaded intermediate certificate.
- Execution of a vWLAN scheduled job does not clear domain tasks associated with that job.
- AP Job cannot be scheduled for APs with pending Firmware Upgrades.
- Non-root UI admin receive **Forbidden** message when trying to acknowledge WIDS alerts.
- DynamicRF is not reducing TX power to minimum setting after background scan in cases where it should. **Workaround:** Use Continuous DynamicRF mode with client-aware AP/ Sensor mode to adjust power properly.
- Client Status Page may contain inaccurate information on heavily loaded servers. The indexing will catch up over time.

- While creating a new SSID using WPA2 security, the UI does not show the option to choose an accounting server. **Workaround:** Edit the SSID after it is created.
- If you restrict all available channels save 1 and then run a background scan, the APs may choose a restricted channel.
- If a secondary server is converted to a standalone, APs will show down in the UI.
- The SNMP Trap OID and TRAPOID number values are the same for everything.
- Continuous re-indexing of the vWLAN UI is causing system instability in large scale deployments.
- The BSAP 3040 will not properly function in 80+80 MHz mode in non-DFS certified and configured deployments.
- The Max EIRP for Canada does not scale up to ISED allowed total limits
- Uploading a license for an AP that already exists but is currently licensed with another country code will fail. **Workaround:** Delete the AP license before uploading another.
- After clearing adjacent APs, BSAP 18XXs will not scan adjacencies again until they have been rebooted.
- Creating Mesh links between APs of a different type or series causes sluggishness in the connection speeds. This type of linking is not recommended or supported.
- When a role schedule is initiated to remove a role, currently authenticated clients in vWLAN may still show as authenticated in the vWLAN UI though they will be denied access.
- DynamicRF will suggest Channel 0 if all channels available to a particular AP model are excluded in the AP template.
- Specifying a MAC address that is all uppercase while taking an AP Traffic capture causes the capture to fail to start.
- By default, outdoor APs are set to Indoor in the AP details page. **Workaround:** Navigate to **Status>APs** and select the particular AP to change this setting back to Outdoor.
- In a frequently changing RF environment, if new RF changes have been detected since the last status was displayed, DynamicRF suggestions shown on the **Status > APs** menu may not be the exact settings pushed to the AP upon an accept.
- Uploading a license for an AP that already exists but is currently licensed with another country code will fail. **Workaround:** Delete the AP license before uploading another.
- In an extremely crowded RF environment (APs with over 100 adjacencies), the DynamicRF channel algorithm may not pick the channel with the least interference.
- In rare cases, a DynamicRF change suggestion may fail to display a message on the **Status->APs** menu but will be applied when accepting DynamicRF suggestions.

- The current channel being scanned by DynamicRF is not shown in the AP Status Page.
- After channel scanning, the AP adjacency produced by the channel scanning AP will show as all zeros.
- Adjacent APs running in 80Mhz mode are shown in vWLAN's Adjacent AP page as 40Mhz.
- The Signal and TX Rate fields for clients connected to BSAP 18XXs do not display correct information. These statistics are not supported on the BSAP 18XX Series.
- Unless the maximum and minimum transmit power are set to the same value inside a DynamicRF profile, those specific power settings will never be automatically chosen for radios.
- The **Select All** button only selects the first 100 entries in the table in the UI.
- Over time dashboard widgets cease to display the latest data point available.
- When configuring custom language login forms, vWLAN may display invalid characters for some languages. Instead of the valid character, the browser displays ?.
- If invalid entries are made when configuring the LDAP server, the Administrator may not receive a valid error message.
- The Timeout Weight setting should be a required field in the LDAP Server configuration and will automatically default to **1** if left blank on initial set up.
- The Administrator feature of **Downloading Widgets** as **JPEG** does not function.
- Uploading the same AP Firmware file twice results in the inability to choose a different firmware file. **Workaround:** Navigate away from the page and back again.
- In some cases, vWLAN's self-signed certificate is regenerated when the system reboots and the certificate must be re-saved. **Workaround:** Upload a custom certificate verified by a CA
- The client count display on the UI is inaccurate and out of sync in a large system with multiple clients roaming. The client count at the top of the UI page on the Domain status page and the client count at the bottom of the UI page do not match - even after multiple refresh cycles.
- Packet captures taken from the vWLAN UI often miss packets. In a lab environment during captive portal authentication with RadiusWebServer, a test sent 50 packets but the PCAP observed only 48. **Workaround:** Administrators are advised to take multiple Packet captures when attempting to diagnose an issue.
- When attempting to execute a traffic capture from the vWLAN UI on an AP that is in a down state, the capture will not begin, but the UI will not return an error.
- After upgrading, some pages may not load correctly due to browsers' cached sorting options. **Workaround:** Clear the browser cookies and cache.

- When using the Drop User function, Apple MacBooks running OS X will retain a previously held IP address unless the timeout threshold is reached. This can cause web redirection to the captive portal to fail if the client attempts to connect to a different SSID. **Workaround:** Disable the wireless interface on the MacBook prior to dropping the user.
- Some customized login forms do not allow full customization of the page. The page renders the same without regard to the **Enable Complete Customization** selection.
- When using a Google Chromebook on a captive portal, the user will never be automatically redirected to their final destination. Manually refreshing the page or going to another page will function as expected.
- The intended behavior of HSTS is fundamentally incompatible with vWLAN's HTTPS redirection of clients to the login form. For example, Google, Facebook, and Yahoo all use HSTS and will not redirect to the login form in browsers that support HSTS. If an attempt is made to redirect to an HTTPS site that does not use HSTS (<https://www.adtran.com> works for this), a certificate warning is returned that cannot be ignored or bypassed. See <http://caniuse.com/#feat=stricttransportsecurity> to determine which browsers support HSTS.
- The platform NTP server setting did not return errors when invalid values were entered for its host name.
- High Availability is not replicating HotSpot Login Forms correctly.
- In case of 1X Authentication Failed, vWLAN GUI will display Unregistered Role even though Different Role was configured.
- Some pages in the UI do not fully function using IE9. **Workaround:** Use a different browser, upgrade to a newer version of IE, or use the API.
- After executing any restart from the vWLAN GUI, the page must be refreshed manually.
- If an administrator attempts to delete an Email Configuration that was used to schedule a Dashboard job by a different user/administrator, the deletion will fail. It will give the name of the Dashboard that has the job scheduled, but the administrator might not have access to that dashboard to clear the job. The creator of the Scheduled Job must remove the job before the Email Configuration is deleted.
- If an AP is manually edited and a non-native location is selected for the Location, the AP may not discover locations correctly.
- Using the captive portal in the Catalan, German, Swedish, and Portuguese languages may display special characters instead of some letters.
- APs configured for Mesh mode do not allow an AP traffic capture.
- The API may become unresponsive if used from multiple sources simultaneously. It will become responsive again after a few minutes.

- When upgrading a large database (with many historical records and/or domains) the system can take up to an hour to come up after the upgrade. **Workaround:** Implement HA or a high Control Channel timeout.
- While under heavy load, the GUI may report incorrect status information or it may sort the information improperly. The system will recover after a few minutes.
- The ability to preview a login form does not function properly when using the Opera browser.
- For fast-roaming, adjacent APs must detect each other and add each other as neighbors. If APs are brought in at different times it is possible for neighbor detection to fail and roaming to take longer.
- The BSAP 3040 radio LEDs are inconsistent with the configured radio mode.
- In rare cases, the BSAP 3040 5GHz radio may lock up and stop broadcasting. **Workaround:** Reboot the AP.
- Clients may remain on the Thank You page over a minute once authenticated through the Captive Portal when using Walled Garden for Captive Portal Authentication (i.e. the unregistered role and the final user role are utilizing the same subnet).
- Walled Garden will not function properly in some cases due to being unable to strip the tag from the user traffic. **Work around:** Use the NAC unregistered role method for Captive Portal.
- In rare cases, the BSAP 3040 may reboot due to an Offload Processor Assert error.
- In some cases, the BSAP 2030 will reboot due to an Offload Processor Assert error.
- If an AP radio is set to a channel width that requires more channels than the are currently unrestricted according to the channel-restrictions set by the administrator, the AP may operate on restricted channels.
- Changing the channel width when a windows client is connected will result in a one time AP reboot.
- The 2.4GHz radio may only have 124 client associations, whereas the 5.0GHz radio operates normally.
- Only 52 clients can associate to a BSAP 1800, despite vWLAN indicating a 64 client limit.
- BSAP 1800s may run low on memory causing sporadic client and AP activity, or even lose connection with vWLAN requiring a manual hard reset before operation can resume.
- Wireless packet captures may not function properly on the 5GHz radio of a BSAP 1800 series.
- The UI will allow configuration of greater than 1024 schedules. Configuring greater than 1024 schedules can result in AP reboots.

- BSAP 1800 version 2 may use the incorrect Power Save Mode for clients, resulting in missing packets and dropped connections.
- When starting a wireless packet capture, take care to allow the capture to begin before taking an action on it. If the capture must be stopped, wait at least 30 seconds to let the capture fully start. If a domain task pop-up is seen after a capture, it means the AP never fully recovered after the capture. Apply configuration to or reboot the AP to recover it.
- If greater than 86 users are associated to an AP and a failover occurs, they will not appear immediately in the UI of the secondary vWLAN.
- The Sony Xperia Tablet Z running Android version 4.2.2 may fail to authenticate using 802.1x due to an issue with the device itself.
- Utilizing SNMP on vWLAN can cause the server's memory to be heavily utilized.

9 Release Specific Upgrade Instructions

Starting with version 3.1.0, vWLAN image files now include BSAP firmware within the image. Once the image has been uploaded and the server has been upgraded, a domain task will appear for the administrator with the text "New AP firmware is available, select domain, AP template, apply and activate". Selecting this admin task allows you to apply the firmware to all templates in all domains.

vWLAN can only be upgraded to 3.3.0 if it is currently on version 2.6.2 or greater. vWLANs on versions 2.2.1 to 2.6.1 must first upgrade to version 2.6.2 and then upgrade to version 3.3.0. AP firmware does not have to be upgraded to 2.6.2 and can instead be upgraded directly to 3.3.0 with the second upgrade.

If you attempt to upgrade from a version prior to 2.6.2 to 3.3.0, the upgrade will error out and the following message will appear in the upgrade alerts and platform alerts:

*** MUST BE RUNNING 2.6.2 TO UPGRADE TO THIS IMAGE! *** (Please upgrade to 2.6.2 prior to loading this image.)

To upgrade your vWLAN Virtual Appliance, please see the vWLAN upgrade guide located at <https://supportforums.adtran.com/docs/DOC-7691>.



NOTE

vWLAN 3.3.0 requires using Bluesocket Access Point (BSAP) firmware version 3.3.0. BSAP 3.3.0 is not backward compatible with previous vWLAN code versions.



NOTE

vWLAN systems running 2.3.X or earlier are not able to be upgraded. Instead, a new system should be deployed with 3.3.0 and configuration parameters from the 2.3.X system should be manually ported to the 3.3.0 system. Attempting to upgrade a 2.3.X system could cause some vWLAN configuration parameters to be lost.

10 Warranty and Contact Information

10.1 Warranty

Warranty information can be found at:

www.adtran.com/warranty.

10.2 Contact Information

For all customer support inquiries, please contact ADTRAN Customer Care:

Contact	Support	Contact Information
Customer Care	From within the U.S. From outside the U.S. Technical Support: ■ Web: Training: ■ Email: ■ Web:	1.888.4ADTRAN (1.888.423.8726) + 1.256.963.8716 www.adtran.com/support training@adtran.com www.adtran.com/training www.adtranuniversity.com
Sales	Pricing and Availability	1.800.827.0807