

Release Note for AlliedWare Plus Software Version 5.5.4-0.x



Allied Ware Plus operating system

AMF Cloud SBx81 CFC960 SBx908 GEN2 x950 Series x930 Series x550 Series x530 Series x530 Series x330 Series x320 Series x240 Series x230 Series x220 Series IE340 Series IE220 Series IE210L Series

SE240 Series XS900MX Series GS980MX Series GS980EM Series GS980M Series GS970EMX Series GS970M Series AR4000S-Cloud I0GbE UTM Firewall AR4050S-5G AR4050S AR3050S AR3050S AR1050V TQ6702 GEN2-R



Acknowledgments

This product includes software developed by the University of California, Berkeley and its contributors.

Copyright ©1982, 1986, 1990, 1991, 1993 The Regents of the University of California.

All rights reserved.

This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit. For information about this see **www.openssl.org**/ Copyright (c) 1998-2019 The OpenSSL Project Copyright (c) 1995-1998 Eric A. Young, Tim J. Hudson All rights reserved.

This product includes software licensed under the GNU General Public License available from: www.gnu.org/licenses/gpl2.html

Source code for all GPL licensed software in this product can be obtained from the Allied Telesis GPL Code Download Center at: www.alliedtelesis.com/support/gpl-code

Allied Telesis is committed to meeting the requirements of the open source licenses including the GNU General Public License (GPL) and will make all required source code available.

If you would like a copy of the GPL source code contained in Allied Telesis products, please send us a request by emailing **gpl@alliedtelesis.co.nz**.

©2024 Allied Telesis Inc. All rights reserved. No part of this publication may be reproduced without prior written permission from Allied Telesis, Inc.

Allied Telesis, Inc. reserves the right to make changes in specifications and other information contained in this document without prior written notice. The information provided herein is subject to change without notice. In no event shall Allied Telesis, Inc. be liable for any incidental, special, indirect, or consequential damages whatsoever, including but not limited to lost profits, arising out of or related to this manual or the information contained herein, even if Allied Telesis, Inc. has been advised of, known, or should have known, the possibility of such damages.

Allied Telesis, AlliedWare Plus, Allied Telesis Management Framework, EPSRing, SwitchBlade, VCStack and VCStack Plus are trademarks or registered trademarks in the United States and elsewhere of Allied Telesis, Inc. Additional brands, names and products mentioned herein may be trademarks of their respective companies.

Getting the most from this Release Note

To get the best from this release note, we recommend using Adobe Acrobat Reader version 8 or later. You can download Acrobat free from **www.adobe.com**/



What's New in Version 5.5.4-0.11
Introduction1
New Features and Enhancements4
Important Considerations Before Upgrading14
Obtaining User Documentation
Verifying the Release File
Licensing this Version on an SBx908 GEN2 Switch 22
Licensing this Version on an SBx8100 Series CFC960 Control Card 24
Installing this Software Version
Accessing and Updating the Web-based GUI



What's New in Version 5.5.4-0.1

Product families supported by this version:

AMF Cloud	SE240 Series ¹
SwitchBlade x8100: SBx81CFC960	XS900MX Series
SwitchBlade x908 Generation 2	GS980MX Series
x950 Series	GS980EM Series
x930 Series	GS980M Series
x550 Series	GS970EMX Series
x530 Series	GS970M Series
x530L Series	10GbE UTM Firewall
x330 Series	AR4000S-Cloud
x320 Series	AR4050S
x240 Series	AR4050S-5G
x230 Series	AR3050S
x220 Series	AR1050V
IE340 Series	TQ6702 GEN2-R
IE220 Series	
IE210L Series	

1. Not available in all regions

Introduction

This release note describes the new features in AlliedWare Plus software version 5.5.4-0.1.

Software file details for this version are listed in Table 1 on the next page. You can obtain the software files from the Software Download area of the Allied Telesis website. Log in using your assigned email address and password.

For instructions on how to upgrade to this version, see "Installing this Software Version" on page 26.

For instructions on how to update the web-based GUI, see "Accessing and Updating the Web-based GUI" on page 28. The GUI offers easy visual monitoring and configuration of your device.



Caution: Using a software version file for the wrong device may cause unpredictable results, including disruption to the network.

Information in this release note is subject to change without notice and does not represent a commitment on the part of Allied Telesis, Inc. While every effort has been made to ensure that the information contained within this document and the features and changes described are accurate, Allied Telesis, Inc. can not accept any type of liability for errors in, or omissions arising from, the use of this information.

The following table lists model names and software files for this version:

Table 1: Models and software file names

Models	Family	Date	Software File
AMF Plus Cloud		03/2024	vaa-5.5.4-0.1.iso (VAA OS) vaa-5.5.4-0.1.vhd and upload_vhd.py (for AWS) vaa_azure-5.5.4-0.1.vhd (for Microsoft Azure)
SBx81CFC960	SBx8100	03/2024	SBx81CFC960-5.5.4-0.1.rel
SBx908 GEN2	SBx908 GEN2	03/2024	SBx908NG-5.5.4-0.1.rel
x950-28XSQ x950-28XTQm x950-52XSQ x950-52XTQm	x950	03/2024	x950-5.5.4-0.1.rel
x930-28GTX x930-28GPX x930-28GSTX x930-52GTX x930-52GPX	x930	03/2024	x930-5.5.4-0.1.rel
x550-18SXQ x550-18XTQ x550-18XSPQm	x550	03/2024	x550-5.5.4-0.1.rel
x530-10GHXm x530-18GHXm x530-28GTXm x530-28GPXm x530-52GTXm x530D-28GPXm x530DP-52GHXm x530DP-52GHXm x530L-10GHXm x530L-18GHXm x530L-28GTX x530L-28GPX x530L-22GTX x530L-52GTX x530L-52GPX	x530 and x530L	03/2024	x530-5.5.4-0.1.rel
x330-10GTX x330-20GTX x330-28GTX x330-28GTX x330-52GTX	x330	03/2024	x330-5.5.4-0.1.rel
x320-10GH x320-11GPT	x320	03/2024	x320-5.5.4-0.1.rel
x240-10GTXm x240-10GHXm	x240	03/2024	x240-5.5.4-0.1.rel
x230-10GP x230-10GT x230-18GP x230-18GT x230-28GP x230-28GT x230L-17GT x230L-26GT	x230 and x230L	03/2024	x230-5.5.4-0.1.rel
x220-28GS x220-52GT x220-52GP	x220	03/2024	x220-5.5.4-0.1.rel
IE340-12GT IE340-12GP IE340-20GP IE340L-18GP	IE340	03/2024	IE340-5.5.4-0.1.rel
IE220-6GHX IE220-10GHX	IE220	03/2024	IE220-5.5.4-0.1.rel

Models	Family	Date	Software File
IE210L-10GP IE210L-18GP	IE210L	03/2024	IE210-5.5.4-0.1.rel
SE240-10GTXm SE240-10GHXm	SE240	03/2024	SE240-5.5.4-0.1.rel
XS916MXT XS916MXS	XS900MX	03/2024	XS900-5.5.4-0.1.rel
GS980MX/10HSm GS980MX/18HSm GS980MX/28 GS980MX/28PSm GS980MX/52 GS980MX/52PSm	GS980MX	03/2024	GS980MX-5.5.4-0.1.rel
GS980EM/10H GS980EM/11PT	GS980EM	03/2024	GS980EM-5.5.4-0.1.rel
GS980M/52 GS980M/52PS	GS980M	03/2024	GS980M-5.5.4-0.1.rel
GS970EMX/10 GS970EMX/20 GS970EMX/28	GS970EMX	03/2024	GS970EMX-5.5.4-0.1.rel
GS970M/10PS GS970M/10 GS970M/18PS GS970M/18 GS970M/28PS GS970M/28	GS970M	03/2024	GS970-5.5.4-0.1.rel
AR4000S-Cloud		03/2024	AR-4000S-Cloud-5.5.4-0.1.iso
10GbE UTM Firewall		03/2024	ATVSTAPL-1.9.2.iso and vfw-x86_64-5.5.4-0.1.app
AR4050S AR4050S-5G AR3050S	AR-series UTM firewalls	03/2024	AR4050S-5.5.4-0.1.rel AR3050S-5.5.4-0.1.rel
AR1050V	AR-series VPN routers	03/2024	AR1050V-5.5.4-0.1.rel
TQ6702 GEN2-R	Wireless AP Router	03/2024	TQ6702GEN2R-5.5.4-0.1.rel

Table 1: Models and software file names (cont.)



Caution: Software version 5.5.4-0.x requires a release license for the SBx908 GEN2 and SBx8100 switches. If you are using either of these switches, make sure that each switch has a 5.5.4 license certificate before you upgrade.

Once an SBx908 GEN2 or SBx8100 switch has a version 5.5.4 license installed, that license also covers all later 5.5.4 versions. Such switches will not need a new license before upgrading to later versions.

Contact your authorized Allied Telesis support center to obtain a license. For details, see:

- "Licensing this Version on an SBx908 GEN2 Switch" on page 22 and
- "Licensing this Version on an SBx8100 Series CFC960 Control Card" on page 24.



ISSU (In-Service Software Upgrade) on SBx8100 with CFC960

The 5.5.4-0.1 software version is **not** ISSU compatible with previous software versions.

New Features and Enhancements

This section summarizes the new features and enhancements in 5.5.4-0.1:

- "Support for Download Portal" on page 4
- "Push entity routes to OpenVPN clients" on page 5
- "Improved formatting of new OpenText categories" on page 6
- "TQ6702 GEN2-R enhancements" on page 7
- "Standardization of maximum bridge ID" on page 8
- "Support for more NETCONF and RESTCONF data models" on page 9
- "Fast failover for Free Range Routing Bidirectional Forwarding Detection (FRR BFD) in VCStacks" on page 9
- "Features that no longer require a license on IE220 and IE340 Series devices" on page 10
- "Support for Precision Time Protocol (PTP) on stacked x930 Series switches" on page 11
- "Increasing the maximum lifetime of X.509 certificates" on page 11
- "Support for sFlow on x240 Series switches" on page 11
- "Support for OpenFlow™ protocol on x240 Series" on page 12
- "Passwords are now displayed in encrypted form in running configuration" on page 12
- "VLAN translation enhancement" on page 12
- "Display transceiver power values in dBm" on page 13

To see how to find full documentation about all features on your product, see "Obtaining User Documentation" on page 21.

Support for Download Portal

Applies to AR-Series UTM firewalls and VPN routers, AR4000-Cloud, the 10GbE UTM firewall, and TQ6702 GEN2-R

From AlliedWare Plus version 5.5.4-0.1 and Device GUI version 2.17.0 onwards, there is a new feature called **Download Portal**.

The Download Portal lets administrators offer resources to network users, protected by authentication. The resources could include software installers and setup guidelines, for example a remote access client along with setup instructions, like this:



Welcome to the Devueland Data		
welcome to the Download Portal.		
Software & Configuration D	ownload	
OpenVPN client configuration file	vpn_client_conf.ovpn	Download
Bookmarks		
Company website	https://alliedtelesis.com	

The Download Portal has two user types, administrators and users.

Administrators:

- define the files and links they wish to display on the Download Portal page.
- set up an authentication mechanism that controls access to the Download Portal through usernames and passwords.
- provide users with a URL to subsequently navigate to the Download Portal and retrieve the necessary files and links that they need.

Users:

- navigate to the Download Portal (using a link provided by Admin)
- login to the Download Portal page
- download resources from the Download Portal page

For more information, see the Download Portal Feature Overview and Configuration Guide.

Push entity routes to OpenVPN clients

Applies to AR-Series UTM firewalls and VPN routers, AR4000-Cloud, the 10GbE UTM firewall, and TQ6702 GEN2-R

From AlliedWare Plus version 5.5.4-0.1 onwards, a device configured as an OpenVPN server can push route information based on specific entities. When an OpenVPN client establishes a connection, the IPv4 and IPv6 host addresses along with network subnets for that entity are pushed to the client. The client then routes matching traffic through the OpenVPN tunnel to the AlliedWare Plus device, using a configured IP as the gateway. Host addresses are sent as either a /32 IPv4 route or a /128 IPv6 route.



Note that if there are changes in the network subnets or host IPs on the entity, the client connections will not be automatically updated. In such cases, clients will need to reconnect to obtain any new routes.

New command tunnel openvpn route <*entity-name*>

To configure an entity with subnets and addresses that will be pushed to the OpenVPN client that will be routed to the device, use the following commands:

```
awplus# configure terminal
awplus(config)# zone openvpn_routes
awplus(config-zone)# network internet
awplus(config-network)# host example
awplus(config-host) # ip address dynamic fqdn example.com
awplus(config-host) # exit
awplus(config-network) # exit
awplus(config-zone) # network local
awplus(config-network)# ip subnet 172.16.0.0/16
awplus(config-network) # host example
awplus(config-host)# ip address 10.255.0.1
awplus(config-host) # exit
awplus(config-network)# exit
awplus(config-zone) # exit
awplus(config)# interface tunnel1
awplus(config-if)#tunnel openvpn route openvpn_routes
```

For more information, see the OpenVPN Feature Overview and Configuration Guide.

Improved formatting of new OpenText categories

Available on AR-Series UTM firewalls and VPN routers, AR4000-Cloud, and the 10GbE UTM firewall

OpenText is one of the providers that AlliedWare Plus can use to categorize websites and applications for deep packet inspection (DPI) and web control. OpenText has recently released four new categories, which are alread visible in DPI and web categorization. From 5.5.4-0.1 onwards, AlliedWare Plus formats and displays these new categories in the same way as OpenText's already-existing categories. The new categories are:

- Self Harm
- DNS Over HTTPS
- Low-THC Cannabis Products
- Generative Al



For more information about using web categorization for DPI, see the Application Awareness Feature Overview and Configuration Guide.

For more information about web control, see the Web Control section of the Advanced Network Protection Feature Overview and Configuration Guide.

TQ6702 GEN2-R enhancements

From version 5.5.4-0.1 onwards, the following features have been added to the TQ6702 GEN2-R wireless router.

AMF Plus links over Ethernet ports

From version 5.5.4-0.1 onwards, it is possible to create AMF Plus links over Ethernet ports on TQ6702 GEN2-R wireless routers. This means you can provision, back up, and recover nodes connected to the wireless router's Ethernet ports.

Only up/down links are supported.

For example, use the following commands to configure an up/down link over the eth1 interface:

```
awplus# configure terminal
awplus(config)# interface eth1
awplus(config-if)# atmf-link
```

For more information about creating and using AMF Plus links, see the AMF Plus and AMF Feature Overview and Configuration Guide.

Device Discovery of wireless clients

From version 5.5.4-0.1 and Vista Manager 3.12.0 onwards, Vista Manager EX's Device Discovery can discover wireless clients that are attached to TQ6702 GEN2-R wireless routers. This means that these clients will display on the network map in Vista Manager EX.

To enable this, use the following command on the wireless router when setting up Device Discovery using STOAT:

awplus(config)# stoat discovery wireless

For more information about Device Discovery, see the Device Discovery using STOAT Feature Overview and Configuration Guide.

Enhancements to wireless authentication features

From version 5.5.4-0.1 and device GUI 2.17.0 onwards, wireless authentication on TQ6702 GEN-2 wireless routers allows you to use:

- a wildcard when you specify the IP address, network, or domain name of a walled garden in Captive Portal. A walled garden allows users to access certain web pages without first needing to authenticate with captive portal.
- a MAC address list at the same time as an external RADIUS server for MAC authentication
- AMF application proxy for MAC authentication.

We recommend you use the Device GUI to configure these new features. You can find these new features in the Device GUI by selecting **Wireless** in the lefthand menu, then selecting the tab for Radio1 or Radio2, then the **Edit** button for the desired VAP, then the **Advanced Settings** button, then the **Security** tab.

Standardization of maximum bridge ID

Applies to AR-Series UTM firewalls and VPN routers, AR4000-Cloud, the 10GbE UTM firewall, and TQ6702 GEN2-R

From version 5.5.4-0.1 and Device GUI 2.17.0 onwards, the maximum ID number you can give a bridge entity is 300 on all devices that support bridging. This means that when you create a bridge entity using the commands:

```
awplus# configure terminal
awplus(config)# bridge <bridge-id>
```

then <bridge-id> can be any number from 1 to 300.

Note that the number of supported bridge entities for each firewall or router model has not changed.

For more information about bridging, see the Bridging Feature Overview and Configuration Guide.



Support for more NETCONF and RESTCONF data models

Applies to All AlliedWare Plus devices

From AlliedWare Plus version 5.5.4-0.1 onwards, NETCONF and RESTCONF protocols have *xpath* capability and support the *openconfig-interfaces* and *ietf-interfaces* data models.

Note that an xpath query may have a greater impact on performance than a subtree filter. This is for two reasons:

- having to retrieve more data than is strictly needed
- the extra processing required to apply the query to that data.

We recommend you use subtree filters with NETCONF.

Data models are the foundation for both NETCONF and RESTCONF, as they define the structure and semantics of the data exchanged between network management systems and network devices. These models make it possible to manage network configurations and gather operational data in a consistent, standardized, and vendor-agnostic way, facilitating efficient network management and automation.

For more information about NETCONF and RESTCONF on AlliedWare Plus devices, see the NETCONF and RESTCONF Feature Overview and Configuration Guide.

Fast failover for Free Range Routing Bidirectional Forwarding Detection (FRR BFD) in VCStacks

Applies to SBx8100, SBx908 GEN2, x950, x930, and x530 series switches

BFD is a network protocol that provides low-overhead, short-duration detection of failures in the path between two endpoints. Routing protocols such as BGP can use BFD to receive faster notification of failing links than would be possible using the protocol's own keepalive mechanism.

From version 5.5.4-0.1 onwards, FRR BFD restores routing more quickly when a stack failover occurs in a VCStack. When BFD sessions are created via routing protocols such as BGP, they are now synced across the stack. During a stack failover the new VCStack master device continues using the same session, so it can recover routing quickly.

For this fast failover to work, you need to create a BFD profile on the stack and make **detect-multiplier** x **transmit-interval** be at least 6 seconds. One possible configuration is:

detect-multiplier = 20 transmit-interval = 300 milliseconds (the default) detect-multiplier x transmit-interval = 6000 milliseconds = 6 seconds



An example of this configuration is:

```
bfd profile BGP_EXAMPLE
detect-multiplier 20
!
router bgp 2
neighbor 10.10.10.1 remote-as 1
neighbor 10.10.10.1 fall-over bfd profile BGP_EXAMPLE
```

For more information about BFD, see the BFD Feature Overview and Configuration Guide.

Features that no longer require a license on IE220 and IE340 Series devices

From version 5.5.4-0.1 onwards, the following features no longer require a feature license on IE220 or IE340 Series devices¹.

On IE220 Series switches

- VLAN double tagging (also called nested VLANs or Q-in-Q)
- EPSR master functionality
- VLAN translation (full functionality)
- G.8032 (Ethernet ring protection switching)
- Connectivity Fault Management (CFM)
- OpenFlow

On IE340 Series switches

- Virtual Router Redundancy Protocol (VRRP)
- VLAN double tagging (also called nested VLANs or Q-in-Q)
- EPSR master functionality
- VLAN translation (full functionality)
- G.8032 (Ethernet ring protection switching)
- Connectivity Fault Management (CFM)
- OpenFlow
- MODBUS
- Media Redundancy Protocol (MRP)
- PROFINET
- Continuous PoE

^{1.} These features still require a license in Japan.

Support for Precision Time Protocol (PTP) on stacked x930 Series switches

From version 5.5.4-0.1 onwards, AlliedWare Plus supports PTP Transparent Clock on x930 Series switches in a VCStack (except when stacking over the 1G ports).

PTP is used for applications that require very high precision timing - at the nanosecond level - using Ethernet or Ethernet/IP. This includes, for example, Telco applications such as cellular, where not only frequency, but also phase precision, is needed in order to control hand-off of mobile phones from one cell tower to the next.

The Transparent Clock feature is used by bridges or routers to assist clocks in measuring and adjusting for packet delay. The transparent clock computes the variable delay as the PTP packets pass through the switch.

For more information about PTP and Transparent Clock, see the PTP Feature Overview and Configuration Guide.

Increasing the maximum lifetime of X.509 certificates

Applies to all AlliedWare Plus devices

From version 5.5.4-0 onwards, the maximum lifetime of self-signed X.509 certificates has increased to 10 years. The certificate lifetime is an optional setting when creating a trustpoint, with a default of 5 years. You can specify a non-default lifetime in days (1-3650), months (1-120) or years (1-10).

To do this, use the following command in Trustpoint Configuration mode for a trustpoint:

```
awplus(ca-trustpoint)# lifetime {days <1-3650>|months <1-120>| years <1-10>}
```

For more information about trustpoints, see the PKI Feature Overview and Configuration Guide.

Support for sFlow on x240 Series switches

From version 5.5.4-0.1 onwards, sFlow is supported on x240 Series switches. For details about sFlow, see the sFlow Feature Overview and Configuration Guide.

Note that while sFlow sampling can be enabled on all ports, you can only configure 7 different sample rates. If you attempt to add an 8th sample rate, the following error message appears:

"Unable to set sample rate <rate> on interface <interface> because HW resource is exhausted"



Support for OpenFlow[™] protocol on x240 Series

From version 5.5.4-0.1 onwards, the OpenFlow protocol is supported on x240 Series switches.

x240 Series switches have:

- maximum number of flow table entries: 2560
- maximum number of end-user devices: 1280.

For details about the OpenFlow protocol, see the OpenFlow Feature Overview and Configuration Guide.

Passwords are now displayed in encrypted form in running configuration

Applies to all AlliedWare Plus devices

From version 5.5.4-0.1 onwards, a number of features will now have their passwords displayed in running configuration in encrypted form, instead of in plain text.

This change was made for a number of features in 5.5.3-2.1. In 5.5.4-0.1 onwards, it has been made to the remaining features that displayed passwords in plain text.

For example, if you enter the following CLI command:

ppp password <cleartext>

It will be displayed in running configuration as:

ppp password <ciphertext> encrypted

The **encrypted** parameter shows that the password is encrypted. Do not use this parameter when you enter a password in the CLI.

If you need to display the passwords in unencrypted form, use the new command:

awplus# show running-config unencrypted

This command can only be entered by users with privilege level 15.

VLAN translation enhancement

Applies to SBx908 GEN2 and x950 series switches

From 5.5.4-0.1 onwards, you can apply a new action to packets that do not match one of your explicit VLAN translation rules. Previously, you could choose whether the switch would drop such packets or pass them through without any translation. Now the switch can add a default outer VLAN tag to these packets instead.



This enhancement is helpful if you need to apply the same outer VLAN tag to incoming packets that have many different VLAN tags, or if you do not know the tags of the incoming packets. For example, if you need to add an outer tag of VLAN3 to incoming packets, no matter what VLAN tag they have, you can use this feature to do that.

To get the switch to add an outer tag to such packets, specify the desired outer VLAN ID for the appropriate switch ports (on port1.0.1 in this example):

```
awplus# configure terminal
awplus(config)# interface port1.0.1
awplus(config-if)# switchport vlan translation default
outer-vlan <vlan-id>
```

For details about VLAN translation, see the VLANs Feature Overview and Configuration Guide.

Display transceiver power values in dBm

Applies to all devices that support transceivers (also named pluggables)

From 5.5.4-0 onwards, a new **show** command option lets you display power values for transceivers in dBm (decibel-milliwatts) instead of mW (milliwatts). To do this, use the command:

awplus# show system pluggable [<port-list>] diagnostics dbm



Important Considerations Before Upgrading

Please read this section carefully before upgrading.

This section describes changes that may affect your device or network behavior if you upgrade:

- Limits to Upgrade Compatibility on SwitchBlade x908 GEN2, x950 and x930 Series Switches
- Changes that may affect device or network configuration

It also describes the new version's compatibility with previous versions for:

- Software release licensing
- Upgrading a VCStack with rolling reboot
- Forming or extending a VCStack with auto-synchronization
- AMF software version compatibility
- Upgrading all devices in an AMF network

Please check previous release notes for other important considerations. For example, if you are upgrading from a 5.5.2-2.x version, please check the 5.5.3-0.x, 5.5.3-1.x and 5.5.3-2.x release notes. Release notes are available from our website, including:

- 5.5.3-x.x release notes
- 5.5.2-x.x release notes
- 5.5.1-x.x release notes
- 5.5.0-x.x release notes
- 5.4.9-x.x release notes
- 5.4.8-x.x release notes
- 5.4.7-x.x release notes
- 5.4.6-x.x release notes

Limits to Upgrade Compatibility on SwitchBlade x908 GEN2, x950 and x930 Series Switches

These switches can only be upgraded to the most recent firmware versions from specified older firmware versions. If you attempt to upgrade from other older firmware versions, the firmware becomes corrupt and the switch will not boot up.

The solution Before upgrading to the latest firmware version, upgrade to one of the specified older versions. See "Details for SBx908 GEN2 and x950 Series" on page 15 and "Details for x930 Series" on page 16 for details.



Affected Products

d The following models could be affected:

x930 Series x950 Series SBx908 GEN2 running bootloader running bootloader running any bootloader version versions older than 6.2.24 versions older than 6.2.24 x930-28GTX x950-28XSQ SBx908 GEN2 x930-28GPX x950-28XTQm x930-52GTX x930-52GPX x930-28GSTX

For SBx908 GEN2 and x950 Series, the restriction only applies to switches running bootloader versions older than 6.2.24.

Recovering from upgrading from an incompatible version

If you try to upgrade from an incompatible firmware version, the switch will not finish booting up. If this happens, you can recover by using the bootloader menu to boot with a compatible version from an alternative source, such as a USB stick. See the Bootloader and Startup Feature Overview and Configuration Guide for details.

Details for SBx908 GEN2 and x950 Series

For these switches, switches where the bootloader is older than 6.2.24 are affected. If your bootloader is older than 6.2.24, you **cannot** upgrade to the most recent firmware version directly from:

- **5**.4.9-1.x
- **5.4.9-0.x**
- any version before 5.4.8-2.12.

Instead, before upgrading from one of those versions to the current version, make sure your switch is running one of these specified versions:

- 5.4.8-2.12 or a later 5.4.8-2.x version
- **5**.4.9-2.1 to 5.4.9-2.4.

If it is not, upgrade to one of these versions before upgrading to the most recent firmware version.

To see your bootloader and current software version, check the "Bootloader version" and "Software version" fields in the command:

awplus# show system





Details for x930 Series

For these switches, **versions 5.5.1-2.1** and later are affected, on switches with all bootloaders. You **cannot** upgrade to most recent firmware version directly from:

- 5.5.1-1.3 or earlier
- 5.5.1-0.x
- 5.5.0-2.11 or earlier
- 5.5.0-1.x
- **5.5.0-0.x**
- any version before 5.4.9-2.7.

Instead, before upgrading from one of those versions to most recent firmware version, make sure your switch is running one of these specified versions:

- 5.4.9-2.7 or a later 5.4.9-2.x version
- 5.5.0-2.12 or a later 5.5.0-2.x version
- 5.5.1-1.4 or a later 5.5.1-1.x version.

If it is not, upgrade to one of these versions before upgrading to most recent firmware version.

To see your current firmware version, check the "Software version" field in the command:

awplus# show system

Changes that may affect device or network configuration

The following changes may require you to modify your device or network configuration when you upgrade to this release.

Summary	Affected devices	Detail
VRF configuration reordered in running config	All devices that support VRF	From 5.5.4-0.1 onwards, VRF configuration is printed near the start of running configuration files. This makes sure that AlliedWare Plus creates the VRF instances before running commands that use those VRFs.





Summary	Affected devices	Detail
DES deprecated for All devices that support TACACS+ server key TACACS+ encryption	From 5.5.4-0.1 onwards, newly-created TACACS+ shared keys are stored as AES-encrypted keys. It is no longer possible to create a DES-encrypted key. If the device's running-config contains a DES key, the device will automatically convert it to an AES key.	
		This means that if the running-config contains this command:
		tacacs-server key 8 <des-obfuscated- string></des-obfuscated-
		the device will convert it to this command:
		tacacs-server key 9 <aes-obfuscated- string></aes-obfuscated-

Software release licensing

Applies to SBx908 GEN2 and SBx8100 Series switches

Please ensure you have a 5.5.4 license on your switch if you are upgrading to 5.5.4-x.x on your SBx908 GEN2 or SBx8100 switch. To obtain a license, contact your authorized Allied Telesis support center. You will need to provide the MAC addresses of the switches you want to license. For details, see:

- "Licensing this Version on an SBx908 GEN2 Switch" on page 22 and
- "Licensing this Version on an SBx8100 Series CFC960 Control Card" on page 24.

Upgrading a VCStack with rolling reboot

Applies to all stackable AlliedWare Plus switches, except SBx8100

This version supports VCStack "rolling reboot" upgrades. With the **reboot rolling** command, you can reduce downtime when upgrading a VCStack.

You can use rolling reboot to upgrade to this version from:

For SBx908 GEN2, x950 and x550 Series switches

All versions from 5.5.0-x.x onwards

On these switches, you **cannot** use rolling reboot to upgrade to this version from any version earlier than 5.5.0-0.x.



For x530 Series switches using DAC to stack

For other switches

If you are using DACs (Direct Attach Cables) to connect stack members, you can use rolling reboot to upgrade to this version from:

- All versions from 5.5.0-x.x onwards
- 5.4.9-0.x (but not 5.4.9-1.x or 5.4.9-2.x)
- **5.4.8-2.x**

Otherwise, you can use rolling reboot to upgrade to this version from:

- All versions from 5.4.5-x.x onwards
- 5.4.4-1.x

To use rolling reboot

and for x530

switches using SFP+ to stack

First enter the **boot system** command, which will install the new release file on all stack members. Then enter the **reboot rolling** command.

Forming or extending a VCStack with autosynchronization

Applies to all stackable AlliedWare Plus switches

If you create a VCStack from switches that are running different software versions, autosynchronization ensures that all members will run the same software version when they boot up.

If auto-synchronization is not supported between the software versions on the devices in your stack, you need to make sure all devices are running the same version before you connect the stack together.

For SBx908 GEN2, x950 and x550 Series switches Auto-synchronization is supported between this version and:

All versions from 5.5.0-x.x onwards

On these switches, auto-synchronization is not supported between this version and any version earlier than 5.5.0-0.x.

For CFC960 cards in an SBx8100 system If you want to combine CFC960 v2 and earlier CFC960 cards in a chassis or stack, make sure that the earlier cards are running 5.5.0-x.x or later before you combine them. This applies whether you:

- add a CFC960 v2 card to a chassis or stack that contains earlier CFC960 cards, or
- add an earlier CFC960 card to a chassis or stack that contains CFC960 v2 cards.

Auto-synchronization will not update the software on the earlier CFC960 cards.

Note that this situation only applies if your chassis or stack includes CFC960 v2 cards that are labeled "SBx81CFC960 v2" on the front panel of the card. All cards that are labeled "SBx81CFC960" are referred to as earlier cards, even if their documentation refers to them as version 2.



If you do combine cards that are running incompatible software, then remove the CFC960 v2 card or cards, update the software on the other cards, and re-install the CFC960 v2 cards.

For x530 Series switches using DAC to stack

synchronization is supported between this version and:

If you are using DACs (Direct Attach Cables) to connect stack members, auto-

- All versions from 5.5.0-x.x onwards
- 5.4.9-0.x (but not 5.4.9-1.x or 5.4.9-2.x)
- 5.4.8-2.x

Otherwise, auto-synchronization is supported between this version and:

- For other switches and for x530 switches using SFP+ to stack
 - All versions from 5.4.7-x.x onwards
 - 5.4.6-2.x
 - 5.4.6-1.2 and all later 5.4.6-1.x versions.

It is not supported between this version and 5.4.6-1.1 or any earlier releases.

AMF software version compatibility

Applies to all AlliedWare Plus devices

We strongly recommend that all nodes in an AMF network run the same software release. However, if this is not possible, then nodes running this version are compatible with nodes running:

- All versions from 5.4.4-x.x onwards
- 5.4.3-2.6 or later.

Upgrading all devices in an AMF network

Applies to all AlliedWare Plus devices

This version supports upgrades across AMF networks. There are two methods for upgrading firmware on an AMF network:

- Reboot-rolling, which upgrades and reboots each node in turn
- Distribute firmware, which upgrades each node, but does not reboot them. This lets you reboot the nodes at a minimally-disruptive time.

You can use either reboot-rolling or distribute firmware to upgrade to this software version, from 5.4.3-2.6 and later.

However, if you use reboot-rolling or distribute firmware to upgrade an AMF network, and any of the devices are running 5.4.7-1.1 or later, then you must initiate the upgrade from a device that is running 5.4.7-1.1 or later. Otherwise, the devices running 5.4.7-1.1 or later will not be upgraded.



If you are using rolling-reboot, we recommend limiting it to working-sets of 42 nodes or fewer.

In summary, the process for upgrading firmware on an AMF network is:

- 1. Copy the release .rel files for each product family to the media location you intend to upgrade from (Flash memory, SD card, USB stick etc).
- 2. Decide which AMF upgrade method is most suitable.
- 3. Initiate the AMF network upgrade using the selected method. To do this:
 - a. create a working-set of the nodes you want to upgrade
 - b. enter the command **atmf reboot-rolling** *<location>* or **atmf distributefirmware** *<location>* where *<location>* is the location of the .rel files.
 - c. Check the console messages to make sure that all nodes are "release ready". If they are, follow the prompts to perform the upgrade.



Obtaining User Documentation

For full AlliedWare Plus documentation, click here to visit our online Resource Library. For AlliedWare Plus products, the Library includes the following documents:

- Feature Overview and Configuration Guides find these by searching for the feature name and then selecting Configuration Guides in the left-hand menu.
- Datasheets find these by searching for the product series and then selecting Datasheets in the lefthand menu.
- Installation Guides find these by searching for the product series and then selecting Installation Guides in the lefthand menu.
- Command References find these by searching for the product series and then selecting Reference Guides in the lefthand menu.

Verifying the Release File

On devices that support crypto secure mode, to ensure that the release file has not been corrupted or interfered with during download, you can verify the release file. To do this, enter Global Configuration mode and use the command:

awplus(config)#crypto verify <filename> <hash-value>

where <hash-value> is the known correct hash of the file.

This command compares the SHA256 hash of the release file with the correct hash for the file. The correct hash is listed in the table of Hash values below or in the release's sha256sum file, which is available from the Allied Telesis Download Center.



Caution If the verification fails, the following error message will be generated: "% Verification Failed"

In the case of verification failure, please delete the release file and contact Allied Telesis support.

All switch models of a particular series run the same release file and therefore have the same hash. For example, all x930 Series switches have the same hash.

If you want the switch to re-verify the file when it boots up, add the crypto verify command to the boot configuration file.

Table: Hash values

Product family	Software File	Hash
AMF Cloud	vaa-5.5.4-0.1.rel	328a6d75d53684f3f77432af7ab4035e71621f5c104cdcad0f1195cdf9e3bf77
SBx8100	SBx81CFC960-5.5.4-0.1.rel	759f3a0a670201645a328ec5bf8fc718dccf94044ef63d1bfe54829de1929d2f
SBx908 GEN2	SBx908NG-5.5.4-0.1.rel	763ac31d7fb2e4ac3939c589d29b7f291b944ddb106cf68a0744d71537f8565a
x950	x950-5.5.4-0.1.rel	763ac31d7fb2e4ac3939c589d29b7f291b944ddb106cf68a0744d71537f8565a
x930	x930-5.5.4-0.1.rel	0b3211225c83921353f149f0a589a4b37eee38ff091ceb6445b1f270967f3b3f
x550	x550-5.5.4-0.1.rel	1c5729a111ba461f6d5bace37c208ace640fc87f3f08bb3b8cbbb9270497d6d8
x530 & x530L	x530-5.5.4-0.1.rel	1dbe2bacec36cc8b78eaa87e9f5f9e7863e75bae8ded159691773627f54ff320
x330	x330-5.5.4-0.1.rel	4f8cc00d4e76a1e44f56bc2d82e8937af3b06c9731d34931f14c333f74c9cb01



Table: Hash values

Product family	Software File	Hash
x320	x320-5.5.4-0.1.rel	1dbe2bacec36cc8b78eaa87e9f5f9e7863e75bae8ded159691773627f54ff320
x230 & x230L	x230-5.5.4-0.1.rel	f9cb31d1da87965821c244c8ce4aa3111287baa89fccd727d75bf7244374f29c
x220	x220-5.5.4-0.1.rel	43fa4d784b5a0dd83a28d795473ddc88af1b3b3b86d9b1aebde6a6e80c842db1
IE340 & IE340L	IE340-5.5.4-0.1.rel	423b06e9fe4e3c40eee4e90ea38a68a3a5c95e5a85e16c4f072bc74e37584e81
IE220	IE220-5.5.4-0.1.rel	59bc05451908a4a9f46e1486163e3fe0cd5e290f75dc406d3f1beaa12785c8b6
IE210L	IE210-5.5.4-0.1.rel	f9cb31d1da87965821c244c8ce4aa3111287baa89fccd727d75bf7244374f29c
XS900MX	XS900-5.5.4-0.1.rel	5e68deec8995d20500805f9fef2e48daea3a5fc5a083661c1380a42a9b4b6477
GS980MX	GS980MX-5.5.4-0.1.rel	1dbe2bacec36cc8b78eaa87e9f5f9e7863e75bae8ded159691773627f54ff320
GS980EM	GS980EM-5.5.4-0.1.rel	1dbe2bacec36cc8b78eaa87e9f5f9e7863e75bae8ded159691773627f54ff320
GS980M	GS980M-5.5.4-0.1.rel	43fa4d784b5a0dd83a28d795473ddc88af1b3b3b86d9b1aebde6a6e80c842db1
GS970EMX	GS970EMX-5.5.4-0.1.rel	4f8cc00d4e76a1e44f56bc2d82e8937af3b06c9731d34931f14c333f74c9cb01
GS970M	GS970-5.5.4-0.1.rel	f9cb31d1da87965821c244c8ce4aa3111287baa89fccd727d75bf7244374f29c
AR4050S-5G	AR4050S-5.5.4-0.1.rel	6853154cdbf71dabb2a203c3947b63398b6b7b1186dedd720315c57102c726c8
AR4050S	AR4050S-5.5.4-0.1.rel	6853154cdbf71dabb2a203c3947b63398b6b7b1186dedd720315c57102c726c8
AR3050S	AR3050S-5.5.4-0.1.rel	6853154cdbf71dabb2a203c3947b63398b6b7b1186dedd720315c57102c726c8
AR1050V	AR1050V-5.5.4-0.1.rel	9d8982d33568f8d0d6cab1d272816600001f3f9c4099898f195f093cdfc85c03
TQ6702 GEN2-R	TQ6702GEN2R-5.5.4-0.1.rel	a99a396fb3bcdeda42e194213502210b8212d3906e2233da04af98643c575c76

Licensing this Version on an SBx908 GEN2 Switch

Release licenses are applied with the **license certificate** command, then validated with the **show license** or **show license brief** commands. Follow these steps:

- Obtain the MAC address for a switch
- Obtain a release license for a switch
- Apply a release license on a switch
- Confirm release license application
- 1. Obtain the MAC address for a switch

A release license is tied to the MAC address of the switch.

Switches may have several MAC addresses. Use the **show system mac license** command to show the switch MAC address for release licensing:

```
awplus#show system mac license
MAC address for licensing:
eccd.6d9d.4eed
```



2. Obtain a release license for a switch

Contact your authorized Allied Telesis support center to obtain a release license.

3. Apply a release license on a switch

Use the license certificate command to apply a release license to your switch.

Note the license certificate file can be stored on internal flash memory, or an external SD card, or on a server accessible by the TFTP, SCP or HTTP protocols.

Entering a valid release license changes the console message displayed about licensing:

```
11:04:56 awplus IMI[1696]: SFL: The current software is not licensed.
awplus#license certificate demo1.csv
A restart of affected modules may be required.
Would you like to continue? (y/n): y
11:58:14 awplus IMI[1696]: SFL: The current software is licensed. Exiting
unlicensed mode.
Stack member 1 installed 1 license
1 license installed.
```

4. Confirm release license application

On a stand-alone switch, use the commands **show license** or **show license brief** to confirm release license application.

On a stacked switch, use the command **show license member** or **show license brief member** to confirm release license application.

The **show license** command displays the base feature license and any other feature and release licenses installed on AlliedWare Plus switches. The following example shows output on an SBx908 GEN2 switch:

awplus#show license	
Board region: Global	
Index License name Customer name Type of license License issue date Features included	<pre>1 Base License Base License Full 20-Mar-2024 AMF-APP-PROXY, AMF-GUEST, AMF-Starter, BGP-64, EPSR-MASTER, IPv6Basic, L3-FORWARDING, L3-MC-ROUTE, LAG-FULL, MLDSnoop, OSPF-64, RADIUS-100, RIP, VCStack, VRRP</pre>
Index License name Customer name Quantity of licenses Type of license License issue date License expiry date Release	: 2 : 5.5.4 : ABC Consulting : 1 : Full : 20-Mar-2024 : N/A : 5.5.4



Licensing this Version on an SBx8100 Series CFC960 Control Card

Release licenses are applied with the **license certificate** command, then validated with the **show license** or **show license brief** commands. Follow these steps:

- Obtain the MAC address for a control card
- Obtain a release license for a control card
- Apply a release license on a control card
- Confirm release license application

If your CFC960 control card is in a stacked chassis, you do not need to perform these steps on each chassis in the stack, only on the stack master.

If your license certificate contains release licenses for each control card present in a stacked chassis, entering the **license certificate** command on the stack master will automatically apply the release licenses to all the control cards within the stack.

1. Obtain the MAC address for a control card

A release license is tied to the control card MAC address in a chassis.

Chassis may have several MAC addresses. Use the **show system mac license** command to show the control card MAC address for release licensing. Note the MAC addresses for each control card in the chassis. The chassis MAC address is not used for release licensing. Use the card MAC address for release licensing.

awplus#show system mac license
MAC address for licensing:
Card MAC Address
1.5 eccd.6d9e.3312 1.6 eccd.6db3.58e7
Chassis MAC Address eccd.6d7b.3bc2

2. Obtain a release license for a control card

Contact your authorized Allied Telesis support center to obtain a release license.

3. Apply a release license on a control card

Use the **license certificate** command to apply a release license to each control card installed in your chassis or stack.

Note the license certificate file can be stored on internal flash memory, a USB drive, or on a server accessible by the TFTP, SCP or HTTP protocols.



Entering a valid release license changes the console message displayed about licensing:

```
11:04:56 awplus IMI[1696]: SFL: The current software is not licensed.
awplus#license certificate demo1.csv
A restart of affected modules may be required.
Would you like to continue? (y/n): y
11:58:14 awplus IMI[1696]: SFL: The current software is licensed. Exiting
unlicensed mode.
Stack member 1 installed 1 license
1 license installed.
```

4. Confirm release license application

On a stand-alone chassis, use the commands **show license** or **show license brief** to confirm release license application.

On a stacked chassis, use the command **show license member** or **show license brief member** to confirm release license application.

The **show license** command displays the base feature license and any other feature and release licenses installed on AlliedWare Plus chassis:

awplus#show license OEM Territory : ATI USA Software Licenses	
Index License name Customer name Quantity of licenses Type of license License issue date License expiry date Features included	: 1 : Base License : ABC Consulting : 1 : Full : 20-Mar-2024 : N/A : IPv6Basic, LAG-FULL, MLDSnoop, RADIUS-100 Virtual-MAC, VRRP
Index License name Customer name Quantity of licenses Type of license License issue date License expiry date Release	: 2 : 5.5.4 : ABC Consulting : - : Full : 20-Mar-2024 : N/A : 5.5.4

Installing this Software Version



Caution: This software version requires a release license for the SBx908 GEN2 and SBx8100 switches. Contact your authorized Allied Telesis support center to obtain a license. For details, see:

- "Licensing this Version on an SBx908 GEN2 Switch" on page 22 and
- "Licensing this Version on an SBx8100 Series CFC960 Control Card" on page 24.

To install and enable this software version on a switch or AR series device, use the following steps:

- 1. Copy the software version file (.rel) onto your TFTP server.
- 2. If necessary, delete or move files to create space in the switch's Flash memory for the new file. To see the memory usage, use the command:

awplus# show file systems

To list files, use the command:

awplus# dir

To delete files, use the command:

awplus# del <filename>

You cannot delete the current boot file.

3. Copy the new release from your TFTP server onto the switch.

awplus# copy tftp flash

Follow the onscreen prompts to specify the server and file.

4. Move from Privileged Exec mode to Global Configuration mode, using:

awplus# configure terminal Then set the switch to reboot with the new software version:

Product	Command
SBx8100 with CFC960	awplus(config)# boot system SBx8100-5.5.4-0.1.rel
SBx908 GEN2	awplus(config)# boot system SBx908NG-5.5.4-0.1.rel
x950 series	awplus(config)# boot system x950-5.5.4-0.1.rel
x930 series	awplus(config)# boot system x930-5.5.4-0.1.rel
x550 series	awplus(config)# boot system x550-5.5.4-0.1.rel
x530 series	awplus(config)# boot system x530-5.5.4-0.1.rel
x330 series	awplus(config)# boot system x330-5.5.4-0.1.rel
x320 series	awplus(config)# boot system x320-5.5.4-0.1.rel
x240 series	awplus(config)# boot system x240-5.5.4-0.1.rel
x230 series	awplus(config)# boot system x230-5.5.4-0.1.rel
x220 series	awplus(config)# boot system x220-5.5.4-0.1.rel
IE340 series	awplus(config)# boot system IE340-5.5.4-0.1.rel
IE220 series	awplus(config)# boot system IE220-5.5.4-0.1.rel



Product	Command
IE210L series	awplus(config)# boot system IE210-5.5.4-0.1.rel
SE240 series	awplus(config)# boot system SE240-5.5.4-0.1.rel
XS900MX series	awplus(config)# boot system XS900-5.5.4-0.1.rel
GS980M series	awplus(config)# boot system GS980M-5.5.4-0.1.rel
GS980EM series	awplus(config)# boot system GS980EM-5.5.4-0.1.rel
GS980MX series	awplus(config)# boot system GS980MX-5.5.4-0.1.rel
GS970EMX series	awplus(config)# boot system GS970EMX-5.5.4-0.1.rel
GS970M series	awplus(config)# boot system GS970-5.5.4-0.1.rel
AR4050S-5G	awplus(config)# boot system AR4050S-5.5.4-0.1.rel
AR4050S	awplus(config)# boot system AR4050S-5.5.4-0.1.rel
AR3050S	awplus(config)# boot system AR3050S-5.5.4-0.1.rel
AR1050V	awplus(config)# boot system AR1050V-5.5.4-0.1.rel
TQ6702 GEN2-R	awplus(config)# boot system TQ6702GEN2R-5.5.4-0.1.rel

5. Return to Privileged Exec mode and check the boot settings, using:

awplus(config)# exit
awplus# show boot

6. Reboot using the new software version.

awplus# reload



Accessing and Updating the Web-based GUI

This section describes how to access the GUI to manage and monitor your AlliedWare Plus switch.

The GUI is a convenient tool for monitoring your device's status and performing basic management tasks. Its dashboard provides at-a-glance monitoring of traffic and other key metrics.

On AR4050S and AR3050S firewalls, you can use the GUI to create an advanced application-aware firewall with features such as Application control and Web control. Alternatively, you can configure real-time threat protection with URL filtering, Intrusion Prevention and Malware protection.

On select AlliedWare Plus devices, you can also optimize the performance of your Allied Telesis APs through Vista Manager mini.

Browse to the GUI

Note: In version 5.5.2-2.1, AlliedWare Plus was enhanced so that only strong cipher suites can be used for accessing the Device GUI. This may prevent some very old browsers from accessing the GUI.

Perform the following steps to browse to the GUI.

1. If you haven't already, add an IP address to an interface. For example:

```
awplus> enable
awplus# configure terminal
awplus(config)# interface vlan1
awplus(config-if)# ip address 192.168.1.1/24
```

Alternatively, on unconfigured devices you can use the default address, which is:

- « on switches: 169.254.42.42
- « on AR-Series: 192.168.1.1
- 2. Open a web browser and browse to the IP address from step 1.
- 3. The GUI starts up and displays a login screen. Log in with your username and password. The default username is *manager* and the default password is *friend*.

Check the GUI version

To see which version you have, open the **System** > **About** page in the GUI and check the field called **GUI version**. The version to use with 5.5.4-0.x is 2.17.0.

If you have an earlier version, update it as described in "Update the GUI on switches" on page 29 or "Update the GUI on AR-Series devices" on page 30.





Update the GUI on switches

Perform the following steps through the Device GUI and command-line interface if you have been running an earlier version of the GUI and need to update it.

1. Obtain the GUI file from our Software Download center. The GUI filename to use with AlliedWare Plus v5.5.4-0.x is awplus-gui_554_32.gui.

The file is not device-specific; the same file works on all devices. Make sure that the version string in the filename (e.g. 554) matches the version of AlliedWare Plus running on the switch.

2. Log into the GUI:

Start a browser and browse to the device's IP address, using HTTPS. You can access the GUI via any reachable IP address on any interface.

The GUI starts up and displays a login screen. Log in with your username and password.

The default username is manager and the default password is friend.

- 3. Go to System > File Management
- 4. Click Upload.

	Allied Telesis	x230-18GP				
æ	Dashboard					
⊕	Network Infrastructure $$	File Management				
⊕	Network Services 🗸 🗸					_
*	User Management	/fs /flash			(4) [Upload
\$	System	Name V	Modified —	Size(bytes) —	Actions	
	About 3			2707456	Download	Delete
	File Management	efault.cfg	20/08/2003, 3:25:56 am	1113	Download	Delete

5. Locate and select the GUI file you downloaded from our Software Download center. The new GUI file is added to the **File Management** window.

You can delete older GUI files, but you do not have to.

6. Reboot the switch. Or alternatively, use **System** > **CLI** to access the command line interface, then use the following commands to stop and restart the HTTP service:

awplus> enable awplus# configure terminal awplus(config)# no service http awplus(config)# service http

To confirm that the correct file is now in use, then use the commands:

awplus(config)# exit
awplus# show http

Update the GUI on AR-Series devices

Prerequisite: On AR-Series devices, if the firewall is enabled, you need to create a firewall rule to permit traffic generated by the device that is destined for external services. See the "Configuring a Firewall Rule for Required External Services" section in the Firewall and Network Address Translation (NAT) Feature Overview and Configuration Guide.

Perform the following steps if you have been running an earlier version of the GUI and need to update it.

- 1. Log into the GUI and use **System** > **CLI** to access the command line interface.
- 2. Use the following commands to download the new GUI:

```
awplus> enable
awplus# update webgui now
```

3. Browse to the GUI and check that you have the latest version now, on the **System** > **About** page. You should have v2.17.0 or later.

