FortiNAC - Release Notes

Version 9.1.4.0142

FORTINET DOCUMENT LIBRARY

https://docs.fortinet.com

FORTINET VIDEO LIBRARY

https://video.fortinet.com

FORTINET BLOG

https://blog.fortinet.com

CUSTOMER SERVICE & SUPPORT

https://support.fortinet.com

FORTINET TRAINING & CERTIFICATION PROGRAM

https://www.fortinet.com/training-certification

FORTINET TRAINING INSTITUTE

https://training.fortinet.com

FORTIGUARD LABS

https://www.fortiguard.com

END USER LICENSE AGREEMENT

https://www.fortinet.com/doc/legal/EULA.pdf

FEEDBACK

Email: techdoc@fortinet.com

TABLE OF CONTENTS

Overview of Version 9.1.4.0142

Version 9.1.4.0142 is the latest release being made available to customers to provide functionality and address some known issues.

Important

- 9.1.0+ uses a new GUI format. FortiNAC cannot go backwards to a previous version. Snapshots should always be taken on virtual appliances prior to upgrade.
- 8.8.x: When upgrading from a pre-8.8 version to 8.8 or higher, the upgrade may hang if the appliance does not have external FTP access. The upgrade introduces a new local RADIUS server feature that requires additional CenOS patches. The download and installation of the patches occur during the upgrade process. A new .repo file is written in order to download the patches and specifies FTP as the transfer protocol.
  Customers that currently do not have a README and want to upgrade themselves should do the following:
  a. Modify firewall to allow FTP access for the eth0 IP address for each appliance until upgrade is completed
  b. Once completed, modify the repo files to the desired protocol for future OS updates. For instructions, see section "Change Transfer Protocol to HTTP/HTTPS" in the CentOS Updates document in the Fortinet Document Library.
  Customers that currently have a README, do not want to upgrade themselves, or cannot make the temporary firewall change should contact Support to schedule the upgrade.
- Requires access to downloads.bradfordnetworks.com from each appliance or virtual machine. The update automatically installs CentOS files for the new Local Radius Server feature on the Control Server(s). If access is blocked, the software upgrade will fail. The default transfer protocol can be changed from FTP to either HTTPS or HTTP. For instructions, refer to the Appendix of the CentOS Updates (https://docs.fortinet.com/document/fortinac/8.3.0/updating-centos) reference manual.
- Prior to upgrade, review the FortiNAC Known Anomalies posted in the Fortinet Document Library.
- If using agents or configured for High Availability, additional steps may be required after upgrade for proper functionality. See Upgrade Instructions and Considerations posted in the Fortinet Document Library.
- Requires CentOS 7.4 or higher. The current CentOS version installed is listed as "Distribution" in the CLI login banner or typing "sysinfo".
  Example:
  ```
  > sysinfo
  ***********************************************************************
  Recognized platform: Linux
  Distribution: CentOS Linux release 7.6.1810 (Core)
  ```
  If the CentOS version is below 7.4, run OS updates and reboot before upgrading. For instructions on updating CentOS, refer to the Fortinet Document Library.
- For upgrade procedure, see Upgrade Instructions and Considerations posted in the Fortinet Document Library.

Supplemental Documentation

The following can be found in the Fortinet Document Library.

- 8.x Fixes and Enhancements Summary
- FortiNAC Release Matrix

Version Information

These Release Notes contain additional Enhancements, Device Support, and features. Unique numbering is used for the carious components of the product. The software version and Agent version supplied with this release are listed below.

Version: 9.1.4.0142

Agent Version: 5.2.6

A newer Persistent Agent may be required to support certain antivirus and anti-spyware products. Refer to the Agent Release Notes in the Fortinet Document Library.

Firmware version represents a collection of system services and operating system features imaged on to the appliance before it leaves manufacturing. The firmware image cannot be updated by a Fortinet customer. Services within the image are updated by Fortinet or a certified Fortinet Partner in appliance maintenance packages released as new more robust and secure versions of services become available.

Note that upgrading software versions does not change firmware nor does it automatically require an upgrade to the Persistent Agent. Newer Persistent Agents are not compatible with older software versions unless that capability is specifically highlighted in the corresponding release notes.

Compatibility

FortiNAC Product releases are not backwards compatible. It is not possible to go from a newer release to any older release.

Example: 7.2 F cannot be downgraded to any other release.

To backup the current system prior to upgrade on virtual machines, perform a snapshot. For physical appliances refer to the document Back Up and Restore an Image of a FortiNAC Appliance.

Agents

FortiNAC Agent Package releases 5.x are compatible with FortiNAC Product release 9.x. Compatibility of Agent Package versions 4.x and below with FortiNAC versions 8.x and greater are not guaranteed.

Web Browsers for the Administration UI

Safari web browser version 6 or greater

Google Chrome version 26 or greater

Mozilla Firefox version 20 or greater

Internet Explorer version 9.0 or greater

Opera version 12.15 or greater

Many of the views in FortiNAC are highly dependent on JavaScript. The browser used directly impacts the performance of these views. For example, the new Host view in one browser may take 2 seconds to load, but the same view in a different browser may take 20 seconds. To improve performance, it is recommended that you choose a browser which is fast at processing JavaScript, such as, Google Chrome. Articles on comparing the performance of various web browsers are freely available on the internet. Some performance sites include:

- http://legitreviews.com/article/1347/1/
- http://w-shadow.com/blog/2010/04/20/web-browser-performance-comparison/
- http://sixrevisions.com/infographs/browser-performance/
- http://w-shadow.com/blog/2010/11/03/browser-performance-comparison/

If your browser is not optimized for processing JavaScript, you may see an error message display when accessing a view that uses JavaScript. The message will vary depending on your browser.

Example:

```
Warning: Unresponsive script
A script on this page may be busy, or it may have stopped responding. You can
stop the script now or you can continue to see if the script will complete.
Script: http://<IP>/js/yui/yahoo-dom-event/yahoo-dom-event.js:8"
```

Operating Systems Supported Without an Agent

Android	Apple iOS	Blackberry OS	BlackBerry 10 OS
Chrome OS	Free BSD	Kindle	Kindle Fire
iOS for iPad	iOS for iPhone	iOS for iPod	Linux
Mac OS X	Open BSD	Net BSD	RIM Tablet OS
Solaris	Symian	Web OS	Windows
Windows CE	Windows Phone	Windows RT	

New Features

New Features in 9.1.4

There are no new features in 9.1.4.0141.

New Features in 9.1.3

There are no new features in version 9.1.3.0134.

New Features in 9.1.2

- Added the ability to send FSSO information to the FortiGate even when the endpoint is not directly connected. Requires the Persistent Agent. For details, see section "Unknown Location Endpoint Management" of the FortiNAC Security Fabric Integration Guide in the Document Library.

New Features in 9.1.0

- New GUI Format
- Added ability to customize SMS and e-mail message client receives during Self Registration. For detail, see Send SMS messages in the Administration Guide.
- Added support for multiple VDOMs for WLC
- Detection of:
  - WIRELESS connectivity to non-whitelisted SSIDs (hotspot)
  - Dual-homed connections
- FortiNAC Portal Theme updated to look more modern
- Added MDM polling to the NCM level

- Captive Portal enhancements and Social Media Login options. See Social Media for Captive Portal in the Administration Guide for more details.

Enhancements and Addressed Issues

These changes have been made in FortiNAC Version 9.1.4. These are in addition to the device support added in previous releases.

Version 9.1.4

Ticket #	Description (9.1.4.0142)
611613	**Topology > Set Model Configuration** option does not apply selected "Send Groups to the Firewall" and "Selected Groups" options for the FortiGate Virtual Device Model Configuration
666285	FGT interface with VLANs does not show device connections to VLAN sub interfaces
691918	Improved Local RADIUS/winbind service operation visibility and debugging in GUI
709559	Mist AP L2 Polling failure
721204	D-Link Switch Mac Notification trap support
728862	Enhanced DeviceImport CLI tool including SNMPv3 support. For details on all options, type "DeviceImport" in the CLI
734133	Pnetworks switch integration
735553	CLI and Vlan switching not functioning for Allied and Rugged devices
735791	Secondary servers do not retain contract entitlements
739674	Local RADIUS post-auth failing - Null Pointer Exception attempting to auth on generic/unknown devices (Moxa)
740229	Control Manager (NCM): Renaming scans and syncing creates duplicate scans
741811	Update of Adapter IPs causes empty replaces of DYNAMIC table
741864	Switching port vlans fails for Rugged devices
741929	Control Manager (NCM) is throwing an IOException for Too many open files
741938	HostRecords are cached by mac & used by multiple processes which can overwrite PolicyHints field in use by different process
741952	No response when adding new network devices
742347	IndexOutOfBoundsException in BridgeManager.VlanVerifyVector.put()
743243	Remove unnecessary exceptions for Jamf JSON parsing

Ticket #	Description (9.1.4.0142)
743543	Caching of dot1qIDtoVIDMappings not working on Juniper switches
743627	RADIUS CoA not working with Ruckus mac-authentication sessions
744025	Location based Device profiling rule does not work consistently
744100	Unable to pull mac address information from Ruckus running V 5.2.Ruckus requires REST queries to contain a serviceTicket
744313	SNMP errors for Mist APs in Event Logs
744371	Request count is set to startIndex+999, rather than endIndex-startIndex
745058	Unexpected duplicate and invalid mac addresses in Airwatch MDM cause slow or failed MDM polls
745083	Control Manager (NCM) Sync fails with ArrayIndexOutOfBoundsException
745133	SSH is intermittently failing to some Cisco devices
745444	Certificate Upload and Delete not working for RADIUS targets
746551	TAG not assigned in VDOM other than root
746570	Importing using Start Discovery errors with start IP must be after end IP
746923	Server startup may hang if the appliance doesnt have access to the web
746958	Local RADIUS cant find root VDOM for wireless authentication
746959	nacprobe service does not restart after failure
746986	Separate app servers unable to update OS when using fnac-updates.fortinet.net
747265	Hosts learned from AirWatch with unusually long hostnames
747276	Mist APs created with incorrectly formatted MAC address, L2 polling doesn't work
747324	When using port security on this switch, FortiNAC can no longer see any MAC addresses connected and is unable to read anything
747378	Unable to register multiple hosts as a device from host view
747935	Local RADIUS - "Authentication Failure" event/alarm is triggered after successful authentication
748041	Default Portal Self-signed cert is owned by root, should be nac. Causes deployment of new self-signed certs to fail
748661	Not sending SSO tags for Fortinet VPN clients
749837	Potential ClassCastException syncing objects between Control Manager (NCM) and pods
750264	Network Inventory incorrect after moving FortiGate with managed AP's to another container

Ticket #	Description (9.1.4.0142)
750287	Rebooting Ruckus SZ Controller causes SSID configurations to return to use Inherited
750513	SSO information is not sent in 3rd party SSO integrations
751158	Rename existing RADIUS attribute group throws sql exception, can no longer retrieve all groups
751194	When adding a new Security Fabric Service Connector did not default to port 8013 when it should
751408	Local RADIUS should use VDOM for radius mode when SSID context exists but is set to inherit config from device
751753	Ports view blank for some FortiSwitches in Link mode.
751780	Error dialog is displayed when registering an adapter as a device in Topology
752512	Unable to Assign VLANs on Ruckus Using Local RADIUS
752785	Control Manager (NCM) Synchronization can produce Null Pointer Exceptions in the logs
752788	Alarm view fails to load due to Null Pointer Exception
752838	Profiled Devices edit Rule Settings unable to be disabled
752951	SNMP occasionally parsing MAC addresses incorrectly
753414	Roaming Guest configuration left off of Aruba model configuration
753566	Dropdowns in the VDOM Configuration view are bounded by the body of the dialog
753908	Unable to import/export Device Profiling rules via UI or REST interface
755323	Assigning VLAN ID to Dead End Vlan fails with UI error "Invalid ID - Dead VLAN"
756126	Unnecessary FortiGate related log messages printing by default.Moved these messages to debug level logging
741938 753267	Policy Details in GUI shows wrong results.

Version 9.1.3

Ticket #	Description (9.1.3.0134)
650216	Unable to set firewall tags for PaloAlto model
666660	If a shared filter contains an exclamation point (!), a delete or edit silently

Ticket #	Description (9.1.3.0134)
	fails
676232	Host with a disabled logged on user is not moved to dead end
684657	Improved the communication method between Control Manager (NCM) and pods by using REST API and certificate client authentication over HTTP Requirements: • Manager must be installed with License key containing certificates (not required for pods). For more information see related KB article FD52784 • Firewalls allow TCP port 8443 between Manager and pods If the above requirements are not met, the Manager will use original communication methods
693625	REST API > Groups > Groups service does not check for usage across different configurations
700276	Added Contact Status Polling to Element tab for Link Mode FortiSwitches
705845	Searching groups by name in Roles and Network Device Roles views doesn't work
709965	Server List panel in Control Manager Dashboard takes several minutes to build
712678	Clicking on a user count in the User Summary Dashboard panel does not create a Filter when it opens Host View
712695	Could not log in with a password containing a plus (+) symbol
713181	Added Import button for uploading hosts from an external file
713259	Meraki Ports/Interface creation issue when the Group Policy name is assigned to Production Logical Networks
713505	Nokia switch port names do not contain switch name
723563	Event Alarm Mapping not adding host or event information to Email Action
724173	CoA not working on Fortigates with FortiLink switch, where secret is defined on the switch
724383	Intermittent failure polling clients connected to FortiSwitch in Link mode
724769	When choosing groups for a Role, the slide-in panel lists all groups instead of limiting to User and Host groups
725360	Fix potential ClassCastException in MibObject
725604	Hosts are automatically approved by the system when "Registrations Require Approval" is configured under "Standard User Registration Approval" in the Captive Portal
725746	Communication issues between Control Manager (NCM) and POD can cause Endpoint Compliance scan failures

Ticket #	Description (9.1.3.0134)
725751	"Sync initiated" event added. Generated when a synchronization of servers by Control Manager has been triggered. Provides server IP, the user who triggered the sync and status.
725757	Scheduler Modify dialog, Next Scheduled Time validator doesn't accept new time format
725969	"System Error" balloon pop-up when creating roles
725972	Removed unnecessary startup RelationInterface message from output.master
726099	FSSO processing performance enhancements
726410	When a FortiLink Switch is renamed, the device and port model names in FNAC are not updated
726458	DPC rule does not revalidate upon connect for RADIUS clients ("Confirm Device Rule on Connect")
726678	Added custom Network Devices Admin Profile permission set to view/hide the device model Credentials tab
727066	Error dialog when setting device mapping to Generic SNMP using set device mapping option
727336	When collecting ARP information from ArubaOS WLC, the user table that contains the correct ARP entries is not being queried
727710	On upgrade from 8.8 to 9.1 or higher, the error "com.mysql.jdbc.exceptions.jdbc4.MySQLSyntaxErrorException: Unknown table 'bsc.DatabaseAuditView'" may appear in the logs
728409	Hosts and Adapters views only show 999 Entries. The REST API is returning just the count of records in the current page.
728677	Local RADIUS Server fails to disconnect clients from Ruckus Virtual SmartZone (SZ) controller due to missing RADIUS attributes
728719	Add **Device Profile Rule > Vendor OUI > Clicking Vendor OUI** link results in HTTP 500 Error
729007	NullPointerException during V3 device creation via API when no v1 community strings provided
729585	Cisco ASA VPN clients not moved to the unrestricted group due to multiple values returned when reading object-group
730236	Failure to read SSID on Ubiquiti causes all SSID models to be removed
730601	Changing Endpoint Complaince scan causes agents to be rescanned even when monitors were not changed
730789	When wired clients are authenticated by the Local RADIUS Server, the default VLAN is returned. Network Access Policy look-up is skipped

Ticket #	Description (9.1.3.0134)
730823	Multiple calls to edit a User Host Profile via the API results in failure after the first attempt
730892	VPN solution L2 polling process excessively long.
730908	Errors with secrets with special characters like %
730990	UI rendering for Authentication Policies/Configs tied to wrong permissions
731215	Added support to read L3 tables on Dell OS10 switches with VRFs configured
731633	SQL Exception is thrown during FortiNAC server startup
732229	Missing event and alarm definitions for ADMIN_PROFILE_MODIFICATION
732265	Aruba Controller model configuration view is not showing supported RADIUS controls
732340	dumpports does not show port IP address (requestString)
732580	Added "sar" output in grab-log-snapshot
732965	Local RADIUS Server functionality not working properly upon failover or recovery in High Availability configuration
733232	Unable to save private filters
733903	Setting Host Expiration field to "Never" resulted in inaccurate expiration dates (example 12/31/1969)
733969	Unable to poll Airwatch MDM hosts.Although MDM poll appears to complete, new registered hosts are not created
734792	API communication issues with FortiGate
734895	Unable to parse L2 table on Dell OS10 Switches
735444	All RuggedCom switch models are shown as RSG2300 in the Model Configuration views
735880	Versa switch property files not loaded correctly
736110	Excessive exceptions for DatabaseObjectAlreadyExistsException seen in logs
736465	MAC address label is hidden if the IP address field is disabled in the Game Register portal configuration
736501	Cisco ASA VPN users are not always unrestricted after connecting.
736553	Log format has changed to include the thread ID and to remove redundant timestamp in heartbeat messages
738093	ISO build missing bc package
738257	Improved user look-up method to handle the different userID formats when

Ticket #	Description (9.1.3.0134)
	matching Network Access Policies based on user record criteria. Previously, this was seen to cause delays in responding to RADIUS Accepts in some environments.
738375	RADIUS processing performance issues when RadiusManager debug is enabled
738805	Unable to set SSH port on Device Credentials page. Effects customers upgraded to 9.1.2
739465	Removed Local RADIUS requirement that request must contain Service-Type=10(Call-check)
739674	Local RADIUS MAB & CHAP fixes
740034	Exception in RadiusManager with logging enabled.
740677	Backport of Model generation depends on updated Object Model
733892 733914	LicenseTool APPLIANCE shows EFFECTIVE count/level/certs if both are requested.
707284	VLAN ID and VLAN Name drop-down menu contents are now sorted in the Model Configuration View
714641	fortiGuardCB error in Device Profiling Rules view
732965	Local RADIUS not working properly upon failover and resume in a High Availability configuration
735553	CLI and Vlan switching not functioning for Allied and Rugged devices
739131	Replaced mysql-connector
739380	AirWatch does not retrieve all MAC addresses for enrolled devices
739674	Local RADIUS not working properly for MAC-address-based authentication (MAB) with generic/unknown devices (Moxa)
740723	Devices with VDOMs that specify Local RADIUS server/secret and use the Management IP - on restart the NAS DB tbl entry is removed
740749	Local RADIUS can only handle secrets of 60 characters or less
740962	Events on the Control Manager (NCM) to indicate synchronization of servers started and completed successfully or if there is a failure
741811	Update of Adapter IPs causes empty replaces of DYNAMIC table
741994	SSIDs added to groups with wrong type when added via SSID -> Group Membership preventing policy engine match on the group
742260	NullPointerException in DeviceServer.getVoiceVlans()
742261	NullPointerException in ProbeTelnet.getProbeObjectsByInetAddress()

Version 9.1.2

Ticket #	Description (9.1.2.0128)
725629	Unable to properly manage Aruba 9012 WLC due to incorrect mapping
677981	VPN Host FSSO tags not re-evaluated when host is disabled
704761	If the "Delete Hosts No Longer Managed By MDM" option is enabled, hosts that are managed by Jamf may be deleted incorrectly
518423	802.1x support for Aerohive SR2208P
522462	Trigger "System Created Uplink" Events for Learned and User created Uplinks
543215	The Native VLAN on Juniper EX switches is no longer used.Juniper does not use or recommend using native VLANS
594554	VLAN Switch Success Event and Alarm now contain the "from" and "to" VLAN information
607004	MAC spoofing events do not generate when two endpoints with the same MAC address reside on two different switches at the same time. For configuration instructions, refer to the Administration Guide.
611202	Added support to report the status of the connection to the FortiGate
624926	Select Form Fields layout are not consistant with other fields in the Captive Portal
640641	The Persistent Agent Summary dashboard panel does not display the correct number of agents in the MAC-OS-X column
642707	Model Configuration View not accepting VLAN names in the Quarantine field (only VLAN IDs)
659675	"Rogue Connected" and "Device Created" events now include location (switch/AP and port), IP address, and "Connected Container" information
665191	Unable to get list of Devices in a container when querying FortiNAC using REST API
671704	FortiGate VPN - Host is registered as a device with no "Registered To" information and with "NAC-Default" Role
671997	Juniper Flex-CLI needs to account for configure mode prompt
672391	Generate MAC Spoofing events when spoofing and spoofed machines are on the same switch. For configuration instructions, refer to the Administration Guide.
676196	Sorting by columns does not work in the Legal Documents view
677981	Improved multiple VDOM support for FortiGate VPN integrations.Previously, FortiNAC was unable to determine correct tags to apply to sessions

Ticket #	Description (9.1.2.0128)
682525	Added support to register MicroSoft Intune clients with wired-only interfaces.Requires the FortiNAC agent. For details, refer to the MDM Integration reference manual
682625	ISO install now uses serial console for logging of VM builds.
684437	When validating credentials, SNMP V3 succeeds even if the encryption protocol is incorrect
685185	Support for duplicate userids in multiple AD servers
687183	NCM does not support RADIUS for admin user authentication
687874	Add build type field to version file, displayed version in GUI
689049	Unable to properly manage Dell Switch S4128T due to incorrect mapping
691918	Improved diagnostic tools in Administration UI for local radius/winbind services
693627	Generated REST API token is shown in logs
693628	Uploading a trusted certificate to the same target multiple times thorws an exception
695021	Added the ability to send FSSO information to the FortiGate even when the endpoint is not directly connected. Requires the Persistent Agent. For details, see section "Unknown Location Endpoint Management" of the FortiNAC Security Fabric Integration Guide in the Document Library.
696231	UI:Upgraded to Neutrino 1.0 library
696833	FortiNAC integration with FortiEMS:wrong API version used
697296	The Custom Ignored Adapters List (/bsc/campusMgr/master_ loader/vendorCodes/ignoredAdapters.txt) is now added to System Backup
697937	Monitors are removed when any adapter is not found in the database, which can happen with virtual adapters
697994	VLAN Interface type Ports are Disabled on non-FortiGate devices
698090	Fortigate L3 polls do not support reading IPv6 arp data
698298	AP discovery not working for Extreme/Motrola Wing controllers on 7.X firmware
698728	Telnet/SSH to a FortiGate fail when post-login-banner is enabled
699077	Device Profiler - OUI method should take precedence over all other methods in a DPC Rule
699140	Radius port lookup fails on Nokia switch (Group ID 637)
699153	DeviceImport tool does not set the CLI credentials correctly on the created model

Ticket #	Description (9.1.2.0128)
699606	A warning message now appears when attempting to install a legacy (NetworkSentry) license key using either the Administration UI or Configuration Wizard
700035	Minor formatting issue in dumpports password masking
700128	FortiGate model creation takes a long time.
700312	Vendor OUI update are in agent/templates repo
700577	DHCP rule re-validation not working
700580	When polling the Fortigate, if there are multiple ARP entries for the same MAC address, the newest entry may not be used
700580	Fortigate L3 Poller throws exceptions for static arp entries
700610	Kiosk Page is not loading
700973	FortiNAC changing native VLAN instead of access VLAN and disabling PoE on VLAN switch
700992	Only ASCII characters are supported in FSSO Groups and tags
701358	Attempting to disable a host in Host View without proper permissions locks table, stays grayed out
701378	All API requests to a FortiGate fail when the post-login-banner is enabled
701766	Nessus loader shutdown and was not restarted
701796	Extreme switches detected wrongly as stacked in certian circumstances
702091	PersistentAgent server is failing to add monitor failure results when the last interface in list from agent doesnt have an adapter in FortiNAC
702259	Hostname information collected from FortiGate firewall sessions is no longer used for updating rogue host records.The information was sometimes inaccurate
702584	Delay in Local RADIUS authentication of EAP-TLS hosts
702585	Local RADIUS TLS Config omits v1.1 and writes tls_min_version=1.2 in error
702597	Missing event def RADIUS_SERVICE_RESTARTED
702978	Security Fabric Service Connector loads wrong record on edit
702989	Mist Wireless AP Discovery does not remove rogue
703008	FortiNAC now skips processing EMS device records that are no longer managed by EMS ("is_managed" value set to false)
703033	Added ability to skip registering EMS devices to a user.For configuration instructions, refer to the EMS Integration reference manual

Ticket #	Description (9.1.2.0128)
703342	Added Address and Address Group Objects for use in VDOMs
703771	High Availability view in Administration UI now populates with default values read from /bsc/campusMgr/bin/.networkConfig
704582	NCM Dashboard Server List link to pod is broken
704591	Legacy Hosts view - Auth Type and EAP Type columns not human readable
704601	Potential server startup deadlock
704603	Miscosoft InTune Azure authentication not working
704713	Proxy RADIUS not ignoring empty string for VDOM shared secret causing RADIUS authentication to fail
705017	Settings > System Communication >Incorrect help text for Message Templates
706684	Device Profiler unable to set IP range 10.0.*.1 - 10.0.*.254
706706	Inconsistent scanning with "Scan on Connect" when connecting via VPN
706757	When creating a Device Profiling Rule under the Adapter View, the "Add Device Profiling Rule" option does not default to the NAC-Default role
707107	Unable to save Device Profiling Rule with Network Traffic method
707166	When doing a quick search from Host View, if a host has multiple adapters that all match the search query, each Dynamic Client is displayed independently
707270	Cameras are not matching the device profiling rule for DHCP Fingerprint Type Camera
707291	Fixed CLI Credential timing issue during device modeling
707581	Configuring Monitors on a Scan may fail
707655	Under certain conditions, guest sponsors get multiple approval emails
707722	Added CLI Tool to read arp cache entries collected by FortiNAC.
708193	NumberFormatException and IndexOutOfBoundsException when deleting a Fortigate (especially with no dependent devices)
708194	Ruckus device integration throws exceptions when CLI credentials are missing
708197	NASClientManager.multiObjectRemoved throws ClassCastException
708247	UI:Fixed navigation list component with new themes in Neutrino 1.0
708342	Meraki MX "Validate Credentials" and "Test Device Mapping" not working
708670	Install.bin cleanup: Remove code that is no longer needed

Ticket #	Description (9.1.2.0128)
708671	Resync interfaces scheduled task for modeled FortiGate causes FortiGate SSL VPN FSSO client logoff. Hibernate Exception when removing extended client attributes
709269	FortiGuard Device Profiling method is not available on the NCM
709278	Secondary Server in High Availability responds to RADIUS after Primary Server resumes control
709294	When using macOS browser to add FortiAnalyzer as a log receiver in the Administration UI: - Default port is now set to 514 - Ability to populate the Security string has been removed as it is no longer used
709318	SSH Known host keys can now be removed on-demand from the Credentials tab or automatically whenever a device is removed
709319	VPN integration code sends a VLAN-Switch to the Persistent Agent to inform it that its at risk.This leads to problems with Scan On Connect and unnecessary agent reconnection
709320	Device SSH keys didnt match /bsc/.ssh/known_hosts
709363	OS updates may fail due to i686 dependencies
709544	Eclipse environment error with non-jar ivy artifacts
709561	Passive Agent Policy group pull down does not show any AD groups if one of the AD servers is not reachable
709828	FortiNAC is using a default SSL certificate when connecting to FortiAnalyzer
709842	Improved reporting of the FortiAnalyzer connection state in output.master
709861	Added support for new API introduced in FortiGate/FOS version 7.x
709866	Fingerprint information not removed from database when host record is deleted
709868	Not Updating Rogue Host Name from DHCP Fingerprint
710058	ISO install is failing
710576	Additional data needed for FortiNAC CTAP reports
710646	Device Profiler Windows Profile method not working in HTTPS mode due to Command Line Too Long error
710971	Update MacAddressTable command to get RADIUS working for Huawei switch
711025	Removing an MDM service connector while there is poll in progress does not remove it
711510	PortLinkType not updated after resync interfaces

Ticket #	Description (9.1.2.0128)
711696	Failure to switch VLANs on Cisco SG200-50 switches
712375	User/host profile does not match policy if Adapter information is used
712591	Changed wording for password configuration pop-up box in High Availability configuration for clarification.
712658	Network Inventory takes a long time to load
712887	Fixed issue that might cause Device Profiler custom rules to not match correctly
712889	Only primary interface is imported to FortiNAC when host has multiple adapters
712980	Fail to display interfaces on certain Extreme switch models due to unexpected port format
713591	NEC QX Switches are discovered as generic SNMP devices.
713629	System/Settings/System Communication/Email Settings > Test Email settings works but SendEmail tool doesnt
713870	Failing to read arp cache on H3C
713962	Added L3 Polling support for Versa router
714399	Unable to add Cisco switch to Topology due to a Null Pointer Exception during modeling
714692	Removed iOS and Android from the "Add Device Profiling Rule" view.
714702	Not reading L3 from all VDOMs on a FortiGate
714764	Added license key upload button in Configuration Wizard.
714768	Unable to properly manage Alcatel-Lucent Enterprise OS6860E-P24 due to incorrect mapping.
714808	Ruckus L2 poll does not work with Ruckus version 6.x due to API changes.
715251	When RadiusManager debug is enabled and an unknown RADIUS attribute is received, NullPointerException is printed and FortiNAC stops processing the request.
715418	Trap handler debug states incorrect method says it's calling linkDown when it's calling linkUp
716371	"IllegalArgumentException:Invalid IPv4 address" log messages.
716411	FSSO tags are not sent when host role changes.
716599	RADIUS packets are dropped at times of peak usage.
716897	System>Settings>Trap Mib Files throws exception and does not function
717813	FortiNAC sometimes uses shutdown / No shutdown port to disconnect wired RADIUS client instead of RADIUS CoA

Ticket #	Description (9.1.2.0128)
718168	Added API call /api/v2/user/set-password with userID and password parameters to modify a local user's password
718402	UI:SvgIconInterface isn't being loaded properly during build
718783	FortiGate VPN failed to register for syslog and failed to login correct user if connection was lost without notification.
718802	Unable to collect host/user information from 6.4.3 EMS server.
718831	InTune group add causes database issues
719360	Unable to upgrade appliance if a legacy license Key is installed without Hot-Standby-Capable (High Availability).
719780	Catch All rule name inDevice Profiler is no longer modifiable.
720071	9.1 Online Help Generates 404 Error
720129	Upgrade to 9.x fails with "Unsupported group policy type java.util.ArrayList"
720360	Added FirmwareVersion attribute on the Aerohive SR22XX/Unifi switch models for 802.1x RADIUS CoA functionality
720439	RadiusManager property included in "radiusManager.properties" file
720467	FortiClient EMS integration:Added support for the mac_list property in the API
720471	Added cyber-blue MAC address 00:1A:7D:DA:71:15 to IgnoredAdapters.txt (Custom Ignored Adapters List)
721009	L3 polling of Viptela devices not working properly due to a missing property.
721566	Custom Scans Registry-Keys view produces an error
723851	DHCP Fingerprint for Mac OSX Bug Sur missing
725009	Imported LDAP group does not map to Administrators
716411 715316	Hosts at risk do not trigger network change with FortiGate VPN and FSSO device synchronization doesnt work properly with VDOMs.
717912 715316	Group Membership performance is too slow to handle load from policy engine
721743 715316	Solo Randomized WiFi adapters ignored by PA server, Agent-Local IPs being set on adapters.
	Potential NullPointerException when generating agent fingerprint event.

Version 9.1.0

Ticket #	Description (9.1.0)
	New GUI Format
662191	Added ability to customize SMS and e-mail message client receives during Self Registration. See Send SMS messages in the Administration Guide for more details.
632115	L3 Polling when FNAC enforces a VLAN change to any client.
643102	Sponsor input type using LDAP Group shows members of group twice
648169	REST API improvements related to the following: • If no rank is specified when creating new role object, it will be created and placed at the bottom of the rank list for evaluation. • Ability to create a new device type using one of the images available in the image archive on the appliance. • Adding group members by type • Improved internal handling when adding new groups
653147	Improved lookups for Plus and Base subscription license levels.
655545	FNAC VMs are missing FreeRadius/winbind packages
662036	FortiNAC does not support SSH to devices configured with DH group-18
670023	GSuite integration uses cached user ID instead of the value entered in the UI
677062	Self Registration Login fails with "Multiple sponsors provided. None are valid."
680495	With None or Email selected for approval, no sponsor was associated with the Account Request
693091	Upload Image is blurry in Portal Configuration
693247	Local RADIUS loses NAS shared secrets on startup
693520	FortiGate VPN ports were not shown in inventory and VPN session initiation is slow.
696668	Admin UI should direct users to the config wizard when the appliance is unlicensed
697305	Proxy Radius throws exception when trying to log empty vendor-specific-attribute (VSA).
697636	logrotate permissions errors when run from cron for winbind and hotstandby logs
697984	When a VPN host is deleted from FNAC, the internal entry for it is not being removed.

Ticket #	Description (9.1.0)
698066	We fail to retry properly when the auth token expries for InTune API
592831 671272	Add an option to run an action on alarm clear. Also limit clear events to applicable events.
626004	Palo Alto Security Event Parser severity field value does not match Palo Alto event field value
664989	Admin user unable to enable host with access/modify/delete permissions
670356	Update GUI references from "Citrix Xenmobile" to "Citrix Endpoint Management"
694398	Vendor OUI database is not updating after auto-definition updates complete.
695021	SSO notifications for user logon/logoff to unknown location clients aren not processed.
696939	Changed mapping to support HPE1950 hybrid ports
698344	Corrected format for the default sponsor email in the tool tip.
699103	Firewall Polling should be Firewall Session Polling
699919	High Availability:database stops replicating and no error is reported
699942	The GroupModifyDialog doesnt always pull new data and is causing inconsistencies due to cached results
700035	dumpports cli tool exposes radius secrets
700216	Update VLANs can sometimes take a long time
700574	Event to alarm mapping window checkbox and combos are not working correctly
701045	Model configuration view missing components for several Cisco WLC devices
701069	Cannot filter on "Date Added" in Firewall Sessions view
701399	Fortinet EMS endpoint paging not working correctly
	Wrong column checked in trigger for TLSServiceConfiguration update

Device Support

These changes have been made in FortiNAC Version 9.1.4. These are in addition to the device support added in 8.7 and previous releases.

Version 9.1.4

Ticket #	Vendor (9.1.4.0142)
734133	Pnetworks switch
743833	Cisco NX-OS(tm) nxos.9.3.5.bin Cisco NX-OS(tm) nxos.7.0.3.I7.9.bin
745113	Dell EMC Networking OS S5730-68C-PWR-SI-AC Huawei Versatile Routing Platform Software VRP S5730-48C-PWR-SI-ACHuawei Versatile Routing Platform Software VRP SX350X-52 52-Port 10GBase-T Stackable Managed Switch PLANET IGSW-24040T Managed Switch Cisco IOS Software, CSR1000V Software (X86_64_LINUX_IOSD-UNIVERSALK9-M) Cisco IOS Software, C3560E Software (C3560E-UNIVERSALK9-M) Dell EMC Networking N2224PX-ON, 6.6.1.1, Linux 4.4.170-b055baf1 Dell EMC Networking N3024EF-ON, 6.6.3.36, Linux 4.14.138, v1.0.5 Dell EMC Networking N2248PX-ON, 6.6.3.10, Linux 4.15.18-2ac8b3ec Dell EMC Networking N3248P-ON, 6.6.3.14, Linux 4.15.18-2ac8b3ec Dell EMC Networking N1108EP-ON, 6.6.3.10, Linux 4.14.138 FortiGate Aruba JL677A 6100 24G CL4 4SFP+ Swch PL.10.06.0001 Juniper Networks, Inc. ex3400-24t Ethernet Switch HPE 1950 48G 2SFP+ 2XGT Switch Meraki MR53E Cloud Managed AP Linux cep-gate 3.10.0-957.21.3cpx86_64 1 SMP Aruba JL659A 6300M 48SR5 CL6 PoE 4SFP56 Swch FL.10.08.0001
749162	FortiSwitch-108F-POE
752957	Aruba Instant On 1930 48G 4SFP/SFP+ Switch JL685A HPE 5510 24G PoE+ 4SFP+ HI 1-slot Switch JH147A WS6-DGS-1210-28/F1 6.10.007 Dell Networking N1524 Palo Alto Networks PA-3200 series firewall

Ticket #	Vendor (9.1.4.0142)
	HP 1820-48G-PoE+ (370W) Switch J9984A
	Hirschmann MICE Switch Power
	Hirschmann Rail Switch Power Enhanced
	USIDC-FWL001
	swich standalone
	NetVanta 1534P
	AOS-W (MODEL: OAW-4030)
754988	FSW_248E_POE
	FSW_148F
	FSW_148F_POE
	FSW_148F_FPOE
	FSW_124F
	FSW_108F
	FSW_108F_POE
	FSW_108F_FPOE
	FSW_1024E
	FSW_T1024E
	FSW_124F_POE
	FSW_124F_FPOE
756556	Enterasys Networks, Inc. Bonded SSA Chassis Rev 08.11.04.0005

Version 9.1.3

Ticket #	Vendor (9.1.3.0134)
688048	ApresiaNP2000-24T4X
	ApresiaNP2000-24T4X-PoE
	ApresiaNP2000-48T4X
	ApresiaNP2000-48T4X-PoE
	Apresia13200-28GT
	Apresia13200-52GT
	Apresia5428GT
	Apresia3424GT-SS
	ApresiaLightGM110GT-PoE
	ApresiaLightGM110GT-SS
	ApresiaLightGM118GT-SS
	ApresiaLightGM124GT-PoE
	ApresiaLightGM124GT-SS

Ticket #	Vendor (9.1.3.0134)
	ApresiaLightGM152GT
730834	Foundry Networks FWSX424+2XG
	Ruckus Wireless, Inc. Stacking System ICX7550-24F
	Huawei S5720-52X-LI-AC HP Series Router A-MSR30-10
	H3C Series Router MSR30-10
	Alcatel-Lucent Enterprise OS6350-P24
	Alcatel-Lucent Enterprise OS6350-48
	LGS308P 8-Port Gigabit PoE+ Smart Switch
	HPE MSR3012
	Meraki MR44 Cloud Managed AP
	Dell S4112T-ON
	Aruba JL676A 6100 48G 4SFP+
	Aruba JL679A 6100 12G CL4 2SFP+
	Dell S5048F-ON
	Brocade ICX7150-48-POE
	Brocade ICX7150-48-POEF
	HPE OfficeConnect 1950-24G-2SFP+-2XGT
	Huawei S5735-S48P4X
	Cisco NX-OS(tm) n5000
735445	Huawei Quidway S3352P-EI
	Huawei Quidway S9306
689049	Dell Switch S4128T (DellSwitchOS10)

Version 9.1.2

Ticket #	Vendor (9.1.2.0128)
663957	Alcatel-Lucent Enterprise OS6560-P24Z8
701094	Arista switch models
705003	Extreme 210-Series 24GE PoE+, 2 1GbE SFP ports
	Dell EMC Networking N3224PX-ON
	Dell EMC Networking N3248PXE-ON
	SF350-24 24-Port 10/100 Managed Switch
	Huawei AR109GW-L
	Alcatel-Lucent Enterprise OS6860E-P24
	Cisco Adaptive Security Appliance
	FortiGate 201E

Ticket #	Vendor (9.1.2.0128)
	Cisco IOS Software, ir800 Software ArubaOS Aruba7008-US Cisco NX-OS(tm) nxos.7.0.3.I7.9.bin Powerconnect 8024F, 5.1.0.1, VxWorks 6.6 Device Description: Dell EMC Networking OS Meraki MS355-48X Cloud Managed Switch Cisco IOS IE4000 Cisco IOS C800 AP7632 ArubaOS 505H Cisco IOS Software [Gibraltar] Cisco IOS C9800-AP Cisco Controller
706225	Ruijie XS-S1960
707895	Cisco C899 4G LTE Router
708234	HP 1910-8 Switch
708273	Alteon Application Switch 4408XL Avaya Networks Ethernet Routing Switch 5698TFD ERS-8806 ExtremeXOS X435-8P-4S
708309	Add support for multiple cisco models
709545	Gateway Copper Switch ArubaOS W-AP103
709844	HP VC Flex-10 Enet Module SG500X-24P 24-Port Gigabit with 4-Port 10-Gigabit PoE Stackable Managed Switch SG200-50FP 50-Port Gigabit PoE Smart Switch Xirrus XH2-240 WiFi Array Xirrus XD1-240 WiFi Array Cisco NX-OS Cisco IOS C1000
709863	GbE2c L2/L3 Ethernet Blade Switch for HP c-Class BladeSystem Cisco IOS Software, C1600 Software (AP1G2-K9W7-M)
712593	Huawei S2700-9TP-PWR-EI Meraki MS125-48FP Cloud Managed PoE Switch Huawei S5735-S48T4X Extreme Networks, Inc. A2H124-24P Cisco Controller

Ticket #	Vendor (9.1.2.0128)
	ArubaOS W-AP103
713591	NEC QX Switches: QX-S1016GT-4G QX-S4108GT-4G QX-S4116GT-4G QX-S4124GT-4G QX-S4148GT-4G QX-S3408FT-2G QX-S3416FT-2G QX-S3424FT-4G QX-S3448FT-4G QX-S4009P QX-S4020P QX-S4028P QX-S4052P QX-S3309TP QX-S3318TP QX-S3326TP QX-S3852TP
714422	Planet IGS-10020PT
720989	Cisco IOS Software, C1000 Software (C1000-UNIVERSALK9-M), Version 15.2(7)E2 Huawei S5735-L24P4S-A Huawei S5735-L48P4X-A SG350-28SFP 28-Port Gigabit SFP Managed Switch ExtremeXOS X440G2-24x-10G4 ExtremeXOS X440-24x-10G ExtremeXOS X440-L2-24t ExtremeXOS X440-24x ExtremeXOS X620-8t-2x Industrial 6-P GbE RJ45 + 2-P GbE SFP L2 Plus Managed UPoE Switch Dell EMC Networking N3132PX-ON Dell EMC Networking S3148P Dell EMC Networking OS10 Enterprise Dell EMC Networking OS10 Enterprise Dell EMC Networking OS10 Enterprise Dell EMC Networking OS10 Enterprise Dell Networking OS Series: PE-FN-410S-IOM Dell EMC Networking OS10 Enterprise

Ticket #	Vendor (9.1.2.0128)
	Dell EMC Networking OS10 Enterprise
	Aruba JL660A 6300M 24SR5 CL6 PoE 4SFP56
	Meraki MS390-24UX L3 Stck Cld-Mngd 24-port mGbE UPoE switch
	Meraki MS390-48UX2 L3 Stck Cld-Mngd 48-port 5GbE UPoE switch
	Fortinet FortiGate
	Ruckus Wireless, Inc. ICX7150-24-POE, SPR08090b
	50-Port Gigabit PoE Smart Switch
	Viptela SNMP agent
724820	Ruckus Wireless, Inc. ICX7850-48FS
	Dell EMC Networking OS10 Enterprise, System Type: S5212F-ON
	Ruckus Wireless, Inc. ICX7650-48F
	HVC-Budel-FW01
	Brocade Communications Systems, Inc. ICX7250-24, labeled as SPS08030
	Brocade Communications Systems, Inc. FWS648G-POE, labeled as FWSL07400d1
	Ruckus Wireless, Inc. ICX7150-C08-POE, labeled as SPS08091
	Dell Networking OS, Series: MXL-10/40GbE
	Cisco IOS Software, C2960CX

Version 9.1.0

Ticket #	Vendor (9.1.0)
612738	Nokia DSLAM Switch 7360 ISAM FX Switches
673023	Huawei S6720-26Q-SI-24S-A
680809	Dell EMC Networking S3124
	Dell EMC Networking N1108P-ON
	Ruckus Wireless Inc (C) 2006
	SG350-52 52-Port Gigabit Managed Switch
	Cisco Sx220 Series Switch
	Dell EMC Networking N3024ET-ON
	Cisco IOS Software, C880
	Meraki MS355-24X Cloud Managed Switch
	Cisco Adaptive Security Appliance Version 9.12(3)12
	SG250-08HP 8-Port Gigabit PoE Smart Switch
695460	Cisco NX-OS(tm) n9000
	ProCurve 516733-B21 6120XG Blade Switch

Ticket #	Vendor (9.1.0)
	CBS350-8FP-E-2G 8-Port Gigabit PoE Managed Switch SF250-24 24-Port 10/100 Smart Switch SG250-26P 26-Port Gigabit PoE Smart Switch Ruckus Stacking System ICX7650-48Z-HPOE 24-port 10/100 Ethernet Switch Arista Networks DCS-7260CX3-64 Arista Networks DCS-7280SR-48C6 SG200-26FP 26-Port Gigabit PoE Smart Switch SG200-18 18-Port Gigabit Smart Switch Arista Networks CCS-758-CH Ruckus ICX7150-C08PT Cisco IOS Software, C1700 H3C Comware Platform Software
669219	Viptela SD-WAN

System Update Settings

Use the following System Update Settings when upgrading through the Administrative UI:

Field	Definition
Host	Set to fnac-updates.fortinet.net
Directory or Product Distribution Directory	Systems running version 8.3.x and higher: Set to **Version_9_1**
User	Set to updates (in lowercase)
Password	Keep the current value.
Confirm Password	Keep the current value
Protocol	Set to desired protocol (FTP, PFTP, HTTP, HTTPS) Note: SFTP has been deprecated and connections will fail using this option. SFTP will be removed from the drop down menu in a later release.

Numbering Conventions

Fortinet is using the following version number format:

<First Number>.<Second Number>.<Third Number>.<Fourth Number>

Example: 8.0.6.15

- First Number = major version
- Second Number = minor version
- Third Number = maintenance version
- Fourth Number = build version

- Release Notes pertain to a certain version of the product. Release Notes are revised as needed. The Rev letter increments accordingly. For example, updating the Release Notes from Rev C to Rev D indicates changes in the Release notes only -- no changes were made to the product.
- The next number represents the version in which a Known Anomaly was added to the release notes (for example, V8.0).