FortiNAC - Release Notes

Version 9.4.0

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Overview of Version 9.4.0

FortiNAC v9.4.0 provides broad enhancements and fixes. At the architectural level, FortiNAC adds enhanced support for RADIUS integrations with FortiAuthenticator, as well as new RADIUS logging and dashboard widgets that allow for at-a-glance view of large numbers of authentication attempts.

FortiNAC administrators confronted with large numbers of devices attempting to get network access will be helped by new dashboard enhancements.

Furthermore, FortiNAC administrators hoping for SMS verification will see that FortiNAC has now added support for API/HTTPS-based SMS gateway integration, including integration with Twilio.

More improvements include an updated Azure deployment guide document, device support for Palo Alto VPN, MOXA, Kerberos, and Huawei wireless LAN Controllers.

Finally, ForitNAC will check anti-virus product status via Windows Security Center to help customers achieve endpoint compliance on the anti-virus products.

Notes

- Starting from 9.1.0, FortiNAC uses a new GUI format. FortiNAC cannot go backwards to a previous version. Snapshots should always be taken on virtual appliances prior to upgrade.
- Prior to upgrading, 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.
- CentOS 7.4 or higher is required. 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.

- FortiNAC Release Matrix

Version Information

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

Version: 9.4.0

Agent Version: 9.4.0

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: 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: 9.4.0.0171 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

Minimum supported FortiNAC Agent Package release: 5.x

Supported FortiNAC Agent communication port: TCP 4568

Web Browsers for the Administration UI

Many of the views in FortiNAC are highly dependent on JavaScript. The browser used directly impacts the performance of these views. It is recommended that you choose a browser with enhanced JavaScript processing.

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	

What's new

New features in 9.4.0

New features

User Group Support with FortiAuthenticator RADIUS Integrations (715957, 713515)

Version 9.4.0 has made it easier to use FortiAuthenticator with FortiNAC for RADIUS integrations. Administrators will no longer be forced to change their FortiAuthenticator configuration when connecting to FortiNAC. New enhancements allow FortiNAC to receive user groups from FortiAuthenticator during the RADIUS authentication process.

For details, see "Fortinet-Group-Name" under RADIUS section of the Administration Guide.

https://docs.fortinet.com/document/fortinac/9.4.0/administration-guide/214558/radius

SMS Gateway (586499)

FortiNAC has the ability to send SMS messages to administrators, guests or users. Previous versions of FortiNAC only supported the Mail to SMS method; now, FortiNAC adds support for API/HTTPS-based SMS gateway integration. FortiNAC 9.4.0 has built-in integration with cloud-based SMS providers such as Twilio, and LDAP group mapping for sponsors.

In the GUI, see: **Network > Service Connectors > Email/SMS**

See information in the Administration Guide: https://docs.fortinet.com/document/fortinac/9.4.0/administration-guide/19358/email-sms

AV agent monitoring (759481)

Previous versions of FortiNAC only checked for Antivirus compliance within the Windows Defender AV product. v9.4.0 adds an option to choose "Security-Center" in the Windows AV category for up-to-date virus definitions, providing compliant protection for those Windows running end points.

Kerberos Support (699487)

v9.4.0 adds Kerberos support for admin and for user authentication on FortiNAC-CA, as well as admin authentication on FNAC-M.

Enhancements

RADIUS Logging and Dashboard (744581, 751403)

Version 9.4.0 has made it easier to authenticate large numbers of users with 802.1x. With concise information on the dashboard to see pass/fails of 802.1x/MAB authentication, v9.4.0 gives at-a-glance insight. Importantly, logs of failed authentications can be exported.

In the GUI, see: **Network > RADIUS > Activity**

For information in the administration guide, see:
https://docs.fortinet.com/document/fortinac/9.4.0/administration-guide/270902/activity

Azure Document update (667439)

Updated and enhanced FortiNAC Azure deployment guide. See:
https://fortinetweb.s3.amazonaws.com/docs.fortinet.com/v2/attachments/3c52cb13-d573-11e9-8977-00505692583a/FortiNAC-8.6.0-Azure_Deployment_Guide.pdf

Device support

Huawei Wireless LAN Controllers AC 6605, 6005 and 6508 (592592, 566257)

FortiNAC v9.4.0 adds device support for Huawei AC-6005-8 Wireless Controller.

Palo Alto VPN (606729)

Added support for Palo Alto VPN.

Add User Organizational Unit OU LDAP mapping in User/Host Profile (699857)

Added User Organizational Unit "OU" LDAP mapping in User/Host profile. FortiNAC sends OU along with FortiGate Device Tag and User Group via FSSO communication with FortiGate.

UI

New dashboard widgets (615850)

The Recent Hosts widget displays newly discovered hosts by type.

The Top Host Activity widget displays the hosts with the most connection activity over a configurable period of time.

The Logical Network Access widget displays all Hosts that had access to each Logical Network over a configurable period of time.

The RADIUS widget displays success/failure information over specified time frames.

Enhancements and Addressed Issues

These changes have been made in FortiNAC Version 9.4.0. These enhancements are in addition to the enhancements that are outlined in previous releases.

Version 9.4.0

Ticket #	Description
643817	Added L2 Polling to Palo Alto
692446	Added Preserve Port Names option to update port names when changed at the switch. Option can be modified at the switch and global level. See Device properties and Network device in the administration Guide for more information.
699487	Kerberos support
699857	User Organizational Unit OU LDAP mapping to use it in User/Host Profile
709286	New UI menu to download log files for troubleshooting. See Download logs in the 9.4 Administration Guide.
726333	Entitlements (such as concurrent licenses) for Subscription Licenses are not accurately reflected in the Administration UI License Management view and only show Base licenses.
733943	Changing password in bulk using Set Model Configuration sets the same username for all selected devices.
747921	Portal renaming does not rename the associated CSS files.
750248	Unable to access the secondary server's Configuration Wizard in a High Availability configuration.
752941	GUI option to select the RADIUS MAC delimiter for Juniper Switches
755328	Embed Tomcat into yams
756167	RADIUS view sort by Winbind column fails, shows empty table.
756499	MicroSoft InTune MDM integration does not support latest API.
759018	Admin user with admin user profile permissions to Access, Add/Modify and delete "Users" is unable to create a new regular user.
762071	Radius Auth/EAP Type columns empty in Network > Device > Ports > Adapters table.
762081	bsc-rename-ethers service fails on virtual machines.

Ticket #	Description
770208	Juniper switches fail to change VLAN on ports that are RADIUS enabled.
770930	High L3 Polling frequency in environments with no SSO management configured.
770974	Event Lifetime alarm trigger rule is not being honored when configured.
773426	Continued work on wired generic RADIUS integration
773828	Not polling L2 information from PNetworks switches with latest firmware.
774724	Unable to filter Hosts and Adapters by status through API.
776171	Rewrite Host/User/Adapter dialogs
777400	Syncing "Role Based Access" may delete sub-groups
778157	L2 Polling issues with Cisco 9800 WLC firmware 17.3.
778520	Added SQL query for GroupManager.getGroupsMembershipIDs() when determining group membership in order to improve performance.
778940	AV Product to detect Windows Security Center-detected products
779414	Client filter for User Accounts, Hosts, and Adapters not functioning properly rewrite of OmniSources.
779873	FortiNAC processes taking unusually long to startup due to delays resuming FirewallSessionMgr.
779901	Vulnerabilties in mysql versions less than 5.6.42.
780282	FortiNAC Events using old vendor name "Bradford Networks".
780626	Huawei Wireless controller imports nameless APs.
780755	Alarms view used the legacy Dashboard actions.
780790	CLI Failing to Alcatel Omni 6860-P48.
781520	RADIUS COA failing for FortiAP when hosts are deleted.
782374	L2 polling not parsing correctly for Motorola 7.X devices.
782418	Hide Accepted Requests Enabled and click on Expand Widget - Widget shows Accept Requests
782433	Fix Integration for D-Link DGS-3130-30TS.
782438	InvalidYamsUserException seen during UI logout.
782740	Unable to read default and current vlans for Ruijie switches.
782744	Script install-winbind-virtual contains spaces around = assignments - invalid.
782760	Huawei S7706 switch is not reflecting the interface port number correctly in the Label column.

Ticket #	Description
782884	Green theme has similar colors for charts.
783227	Check that freeradius gpg key is imported.
783536	Portal Auth - FAC VSA Fortinet-Group-Name is not created in FNAC.
783544	Fortigate FG-200F improperly labeled as FG-201E.
783552	NAC service not running at startup when no IP address is configured for eth0. This causes "Processes Down" to display in UI.
783587	AirWatch MDM roles are overwritten by user roles.
783621	Host import related Memory issues.
783944	Exception reading VLANs on Meru 4100 with firmware 5.1-93.
784045	Memory leak in stacked-area-chart.Symptom includes Dashboard becoming unresponsive if left open for long periods of time.
784346	RADIUS Reject doughnut is not centered if filter does not include any reject counts.
784517	Location filtering not working on Connections view.
784601	Group membership lookup causing high CPU utilization.
784618	RADIUS Failures after upgrading from 8.5 to 8.8 due to bad secret.
784957	Not polling L2 information from Cisco ME-3400E-24TS-M router.
785367	RADIUS GroupName - Group Members list does not show all members.
785403	Unable to add user to user group containing * in name.
785438	A None/Use Default option has been added to Users Dialog > Mobile Providers.
786277	RADIUS Group - Exception when user group already exists with Type non-User.
786401	Remote Scan -> Linux x86_64 -> 500 Error
786434	Allow changing CLI Passwords from Secondary and FNAC-A systems.
786670	Exception thrown when loading Logical Network Host Access tile.
786744	User Accounts view > create user is not passing password as encoded, and will not match auth requests.
786751	Distinguished Name (DN) can now be used in User view filters.
786785	Not able to add ciphers under RADIUS > TLS config page.
787271	Certificate Management View - Server Certs & Trusted Certs views both showing results from both views.
787562	MDM sources can't override the host icon.

Ticket #	Description
787563	Fix null pointer exception during SNMP read of Meraki L2.
787584	Logical Network Host Access host info slider not displaying info.
787585	DHCP fingerprints are not matching DHCP message type.
787909	Portal configuration changes don't take effect without restart.
787957	Self-Registered Guest Login,: Failed to retrieve SMS Providers - null
788066	Server startup delayed by incorrect thread start logic on Network Session Event updater.
788089	RADIUS service will not start after upgrade to 9.2 if winbind is not fully configured.
788119	Network Events table does not show totals for Event Type column.
788138	Network Events has no option to filter child records.
788729	Randomly RADIUS 802.1x proxy stops working.
788825	DHCP fingerprint additions, changes or improvements to the following: "Camera","D-Link" "Camera","TRENDnet" "HVAC","Honeywell" "Mobile","Samsung SmartWatch" "Gaming","Nintendo" "Network","Router/Netgear" "Network","Router/D-Link" "Network","Router/Trendnet" "Network","Apple TV" -> "internet_tv","Apple TV" "Network","Amazon Fire TV" -> "internet_tv","Amazon Fire TV" "Network","Chromecast" -> "internet_tv","Chromecast" "Network","DIRECTV" -> "internet_tv","DIRECTV" "Network","DVR/TiVo" -> "internet_tv","DVR/TiVo" "Network","Roku Media Player" -> "internet_tv","Roku Media Player"
788849	New dashboard tiles relating to Connections were incorrectly not masking the background.
789018	Service Connectors > REST SMS Gateway > The required fields should be the same in create and edit page
789061	Service Connectors > REST SMS Gateway > HTTPs Toggle is not working expectedly when API URL is specified with https.
789228	Modifying adapter allows Physical Address to be left blank.
789309	Filtering on the column Type does not work on Network Events.

Ticket #	Description
789316	Deleting multiple User Accounts in a row does not delete all user in table.
789396	Service Connectors > REST SMS Gateway > Overview: Cant tell which REST SMS Gateway is set as default.
789440	SMS sending would stop after the first user.
789763	When changing the date via the Settings tile, Recent Hosts tile date range not updating properly.
789785	Not able to add groups to the Roles.
789865	Network > Service Connectors > REST SMS Gateway: The default gateway is not working when the mobile provider is None.
790010	Two tiles without settings still show Settings.
790403	Fix ClassCastException in AirespaceSwitch during WAP read.
790580	Network > Service Connectors > REST SMS Gateway: Security Incidents of a host doesn't trigger the corresponding SMS.
790747	FGT interface with VLANs does not show device connections to VLAN sub interfaces for traps.
790854	Failure to properly read Cisco trunk ports results in undesired VLAN switching.
790904	Creating new user as non-admin hangs retrieving Role dropdown values.
791273	Non Admin User Can Edit Admin User.
791276	Clicking EULA Link When Logging In As New User Goes To Broken Link.
791304	Admin Profile > Uncheck All removes General permissions.
791327	FortiNAC is changing WAP Uplink ports Current VLAN to match the Default VLAN.
791342	Manually Registered IP Phones get incorrect device type assigned.
791401	Dashboard > Scans > By Day grouping is incorrect.
791841	Edit Host Dialog > Device Type is not reading/writing the correct value.
792452	NetworkSessionEventUpdater is throwing an exception on startup.
792514	A remote unauthorized user can gain the version of the Tomcat used by FortiNAC by sending an HTTP GET request.
792516	Vulnerable scripts
792522	Fix Database auth changes for initial install.
792986	Device Types, Role, User ID drop down is not ordered.
793169	Messaging Gateways > Change how passwords are transmitted.
793920	Default Admin Profiles Have No Permissions.

Ticket #	Description
794036	User Record values must be populated automatically if the user exists in an Active Directory or an NCM.
794067	Not pulling L2 information from Aruba 8.X firmware.
794362	System Update not reliably trusting fnac-updates.fortinet.net.
794381	Fortigate forwarding class does not work with tlsv1.3.
794774	Landing Page does not work for all choices.
794783	Typo in a CLI Password error message.
794791	Admin user is brought to the last-viewed page when logging in to UI instead of designated Landing page.
794937	The Recent Hosts widget is not displaying addtional host info when clicking counts.
795243	Portal - Request Processing Rules: Text at edge of window for Auto Configure and Publish.
795260	Local RADIUS Server not returning proxy-state attribute in Access Accept for Motorola/Extreme Networks WiNG VX 9000.
795260	Motorola controllers proxying AP auth requests send Proxy-State attr and expect it unchanged in response. RADIUS (local) does not send it back.
795623	Log output from Windows Profile method when parsing fails.
796048	An error is getting thrown during NetworkSessionEvent archive & purge.
796065	Unable to set device profiling to Host to Logged in User (if Present) on NCM.
796105	Device Type incorrectly changing for registered devices.
796145	Guest and Contractors > Select one and View > send SMS throws a null pointer exception.
796259	In Pending Tasks page, tasks are allowed to be completed, even if their parent task is incomplete.
796515	UnsupportedOperationException trying to autoclose FileSystem in process manager.
796522	TelnetServer not handling SocketTimeoutException.
796533	Support for Physical Ethernet MAC for Apple TV in Jamf.
796623	MicroSoft Intune API only returns ethernetMacAddress per device.
796659	Host information does not display when clicking "Total Count" on Persistent Agent Summary widget.
796663	Setting option for Persistent Agent System Page is not allowing to toggle between visualizations.

Ticket #	Description
796908	Clicking the number in the Logical Network Host Access tile does not open the hosts slide.
796965	Network Device Summary widget not showing complete switches and Wireless AP counts.
797369	Added Minutes/Hours/Days control to Logical Network Host Access tile.
797439	Host > Edit Host > Cannot change the Role or manually Register as Device.
797465	Nested group memberships not detected.
797542	Dashboard > Scan > Group by Hour adjusts timezone.
797708	Force 10 switches sometimes modeled incorrectly.
797723	Local RADIUS mode:RADIUS fails for endpoints connecting to a FortiSwitch that has been renamed.
797778	AdminProfileManager has a null reference on Startup.
797834	Unable to properly expand details of "Network Events".
797919	Network > Service Connector > REST SMS: All of the SMS sent out using the default SMS Gateway even when the mobile provider is set.
798181	RADIUS Service Host MAC filter does not print debug if supplicant does not use colon mac delimiter.
798234	Rejected Hosts view in RADIUS Activity tab doesn't properly filter table results to exclude a specific reject cause.
798234	RADIUS dashboard tile - rejected hosts slide opens empty.
798511	Upgrading from 0159 to 0160 results in error: Access denied for user nac@localhost (using password: NO).
798651	Can not access RADIUS Activity view if user has "Activity" but not "Local Service" RADIUS view permissions.
798665	REST SMS Gateway: In Captive network > Guest Self Registratiion page, when Mobile Provider=None, the SMS is not sent.
799804	TLSv1 and TLSv1.1 is now disabled in portal by default.
800323	Policy name in Admin Profile > Permissions are not consistent with policy name in Policy & Object.
800408	API query for FLink FSW data deprecated in FOS 7.2+.Prevents FortiSwitches in Link mode from being added to Inventory when the managing FortiGate is discovered.
800811	User with permission for access users is also able to delete user.
801221	SQL Exception thrown in NetworkSessionEventUpdater if DYNAMICLOG table is missing from database.

Ticket #	Description
801252	RADIUS not mapping to correct AD server when kerberos and netbios names differ for a single winbind instance.
801623	Phone numbers formatted to E.164 before sending to gateway.
801661	GUI - URI navigation drops query params, losing tab indicator, prevents direct links to secondary views.
801666	Host summary tile total values don't apply filter.
801971	Groups view doesn't automatically reload.
802343	The message template under Notify User Via Email is not editable in Self Registration Login Portal Configuration.
802372	Vulnerability Scan Status on Host view page displays as "-1" instead of passed, failed or not scanned.
802913	Clicking Cancel in Create User view results in browser console errors.
802923	ClassCastException when creating/deleting trigger.
802942	Parsing issue with Mobile Iron Cloud integration.
803033	FortiNAC Agent version 9.4.0.93 is included with this release.
803061	Multicast IPv6 addresses can now be excluded using the MAC address Exclusion view. See MAC address exclusion in the 9.4 Administration Guide for details. Note: After upgrade, toggle the option off and on in order for the function to take effect.
803645	output.nessus - several java.io.FileNotFoundException errors
803651	Model Config of VDOM reports 404 error and exception in output.master.
803745	Top Host Activity Widget - maps Device Type to User&Hosts > Hosts > Operating Systems Column instead of Device Type.
803745	The Top Host Activity tile was using getTypeLabel instead of getIconType to populate the Device Type column
804512	A null reference exception is thrown sometimes when expanding/scrolling the Network Events datatable.
804518	Local Radius leaves out Tunnel-Private-Group-ID and Filter-ID when Quarantine enforcement is set to "bypass".
804913	Logical Network Host Access total count slide out shows all hosts for the Logical Network instead of only hosts for the specified time sample.
805725	Historic Network Event data is incorrectly setting Disconnect time.
805866	Scheduled Shared Filter Reports result in error event.
806122	Roles not being assigned properly to Registered Hosts.
806141	Network > NetworkEvents - upgrade from 9.x to 9.4Type, LogicalNetwork

Ticket #	Description
	and NetID is not showing expected data.
806141	Network > NetworkEvents Type, LogicalNetwork and NetID is not showing expected data.
806282	When a user attempts to complete a task via the notification bell, and it has a parent task that is still open, it incorrectly displays a "Changes Saved" message.
806567	known_hosts file has duplicate host entries.
807062	On upgrade, FortiNAC loses it eth0 IP Address.
807383	The POST method to add a new HostRecord has changed in this version.POST attempts using the old API call fails.
586499 765212	SMS Gateway Support
725235 756818	Debug logging enhancements
751403 782386	RADIUS Activity Monitoring - Additional Misc Fixes.
782391 782386	RADIUS health activity- Current last 90 min does not match Timeline Chart Time Span for 90 min
784737 785526	Location and IPRange method match failure prevent matching lower rank rules.
801948 803681	Fresh Deployed server will not start: java.sql.SQLException: Connections could not be acquired from the underlying database.
750209	Enhancement made to detect unrecognized devices that support standard based RADIUS management via CoA/Disconnect.
759481	FortiNAC detects AV engine status on windows

Known Issues Version 9.4.0

Ticket #	Description
874037	GUI > Users & Hosts > Host View > Quick Search - Unable to locate host by hyphen or no delimiter.
882265	FortiNAC is not sending the correct serial number field to FAZ.
780312	FortiNAC does not integrate with Azure Active Directory due to SAML connection requirements.
878836	Intune MDM Integration 'Invalid Audience' when using an App registration in the Azure Government cloud.
754346	Default filter used when selecting Port Changes for a specific device port does not work.
874812	Private VLAN switching is not working > Cisco switches.
878059	Using Location that specifies a device will not work if that device is a FortiLinked FortiSwitch
641036	Multi-factor authentication (MFA) for the Administration GUI login is currently not supported.
686910 714219	Control Manager (NCM) communication issues when the NAC systems are connected through the WAN.For details see related KB article https://community.fortinet.com/t5/FortiNAC/Technical-Note-NCM-communication-issues-with-systems-across-WAN/ta-p/192434.
792968	Legacy View for **Users & Hosts > Hosts** does not display items in tables. **Workaround**: Enter "*" (asterisk) in search field.
752538	When in the **Users & Hosts > Applications** view, selecting an application and clicking the Show Hosts option displays a page that does not provide accurately filtered results. **Workaround**: Navigate **Users & Hosts > Hosts** and create a custom filter to list hosts associated to an application.
770091	Port changes/VLAN assignments made using Local RADIUS are not being logged as port changes.
754346	Selecting Port Changes under the Ports tab of a specific device in Network > Inventory does not display expected results. For details and workaround, see KB article https://community.fortinet.com/t5/FortiNAC/Technical-Tip-Default-filter-for-Port-Changes-does-not-populate/ta-p/209297.
791442	Able to delete a Portal Configuration which is in use by a Portal Policy. Removal is done without warning the user.
710416	There can be a delay in updating IP addresses for isolated hosts in host and adapter view.
708936	FortiNAC will logoff SSO for sessions that remain connected to a managed

Ticket #	Description
	FortiGate IPSec VPN tunnel after 12 hours.
708720	Policy evaluation may not be triggered after a host status update in Microsoft InTune. This can prevent the host from being moved to the proper network. For details and workaround see related KB article https://community.fortinet.com/t5/FortiNAC/Technical-Tip-Policy-evaluation-not-triggered-after-Microsoft/ta-p/203843.
694407	Linux hosts running CrowdStrike Falcon sensor 6.11 and later are not being detected by the agent. This causes hosts running CrowdStrike Falcon to incorrectly fail scans. For details and workaround, see related KB article https://community.fortinet.com/t5/FortiNAC/Troubleshooting-Tip-Linux-hosts-running-CrowdStrike-Falcon/ta-p/202694.
682438	Page Unresponsive' error when exporting hosts.For details and workaround see related KB article https://community.fortinet.com/t5/FortiNAC/Technical-Note-Page-Unresponsive-error-when-exporting-hosts/ta-p/193878.
677628	Cisco WLC Port Channel not classified as Learned Uplink.For details and workaround see related KB article https://community.fortinet.com/t5/FortiNAC/Technical-Note-Cisco-WLC-Port-Channel-not-classified-as-Learned/ta-p/196208.
675180	False positive Scan Results when there are no sub-settings selected in Operating System check.
674438	"Processes" Scan Type option is not available when creating custom scans for macOS systems.
646580	Restarting FortiNAC services can generate a large number of SSH sessions with ASA. For details, refer to related KB article https://community.fortinet.com/t5/FortiNAC/Technical-Note-Restarting-services-can-generate-large-number-of/ta-p/195876.
631115	Only 50000 records display in Adapter and Host Views. Example: Adapters - Displayed: 50000Total: 57500
610581	L3 eth1 sub-interfaces are not removed after re-configuring an appliance configured for L3 Network Type to L2.
609976	Cisco WLC 9800 Model Configuration tab does not include the drop down VLAN lists under Access Value.For details and workaround see related KB article https://community.fortinet.com/t5/FortiNAC/Technical-Note-Cisco-WLC-9800-Model-Configuration-tab-does-not/ta-p/198790.
609046	A port where the master Aruba Instant AP (IAP) with VIP is connected becomes a "learned uplink". This type of uplink is not dynamically undone / removed when the IAP (with the VIP) is disconnected from that port.
522468	Although there are fields to set the role or access value in the Authentication portal, these functions are currently not supported.

Ticket #	Description
762704	After clicking the 'restart services' button when applying SSL certificates to the Admin UI Certificate Target, the prompt does not clear and there is no confirmation dialogue (even though it was successful). Clicking the 'restart services' button again generates an error.
789970	FortiNAC sends SSO login msg to only one slot on the 7000E FortiGate chassis.
768717	FortiNAC not consistently sending SSO logon messages to FortiGate.
784642	Norton Antivirus Plus (Norton 360) installed from app store not detected in endpoint compliance scan.
808523	Delete User: Admin User without Admin User Permissions is able to delete another Admin User
804519	Network Events and other Views - Filtering based on content entered in the filter field does not produce results. Workaround: Leave filter field blank and select an object in the drop-down instead.
804913	Logical Network Host Access total count slide out shows all hosts for the logical network
803692	RADIUS GroupName – non-alphanumeric characters in group names do not get created in UI correctly
710583	L2 Polling Mist APs can result in more API requests than Mist allows per hour.
761745	Mist AP - Port Connection State NOT WAP Uplink.
767548	Register Game system with Host Inventory success page is not working.
773088	No VLAN Information for Adtran NetVanta 1638.
774048	L2 HA + VIP Pairing Process Failing.Configuration completes but leaves both appliances in a "processes down" state.Workaround: Reboot appliances.
775679	Host records manually disabled via their user record are re-enabled after a directory sync.
776077	Local Radius to Winbind connection cannot be secured at this time.
783304	DHCP responds with unexpected addresses in the DHCP-Server-Identifier attribute.This causes release/renew to fail.Affects appliances configured for seperate isolation networks (Registration, Remediation, DeadEnd, etc).
784543	403 error is displayed when sending an email from Guests and Contractors view.Affects FortiNAC admins with limited permissions.Workaround:Enable portal policy permissions in the admin profile.
793634	MDM Server Last Polled and Last Successful Poll information removed in 9.x.

Ticket #	Description
795932	FortiNAC does not track the currently active LDAP server.This can cause Local RADIUS authentication to fail when the primary LDAP server is unreachable.
800255	Device Profiling IP Range Method does not include .255 when using wildcards.
806106	Juniper Change of Authorization (CoA) fails.
806936	Importing Mist devices using the CLI deviceimport tool does not add the AP's to the proper groups.
811404 807309	Admin UI showing error "You do not have permission to access this page". Workaround: Restart tomcat-admin service.
808088	Alarms stop generating notifications.Affects environments with notifications configured for high frequency alarms.
810209	Not all SSIDs are read from Aruba controllers.
810574	"Unable to scan" message when using Dissolvable agent if scan configuration label contains non US-ASCII characters.
811479	Upon failover or resuming control in a High Availability environment, the Local RADIUS service does not start on the appliance in control.Workaround:On appliance in control, either manually start the radiusd service or reboot.
811783	Links in the Persistent Agent Summary panel produce redundant results.
812581	"Duplicate user id" messages in master logs during RADIUS authentication when userID does not match the name in the email address associated with the user record.Affects Local RADIUS implementations.
812674	CoA is not being sent to Huawei wireless after host has registered.
812908	/var/log/messages not rotating.This generates large files and causes high disk utilization issues.
812930	No FSSO Tags sent to FortiGate after 9.4 FortiNAC upgrade in configurations where "Send Groups to Firewall" is not selected in Model configuration.Workaround:Select "Send Groups to Firewall" and save.
813564	FortiNAC fails to find API port from standalone Mode FSW running 7.2.
813652	Security Alarms are not generating from Security Events.
814183	Unable to view all Certificate Details in the Certificate Management view.
814493	Restarting Admin GUI may result in loss of access to GUI.Workaround:In CLI, run command "adminguitool restart".
814631	%port% variable is reading port id rather than port number.Affects FlexCLI configurations.

Ticket #	Description
815352	Logical network configuration mappings can return the wrong value when host is connected via more than one interface.
816451	When importing DHCP Scopes with spaces in the names, the Configuration Wizard Summary displays blank scope data.
816871	Secondary server fails to complete OS updates in High Availability environment.
816877	Profiled device icon does not match the icon assigned by Device Profiling Rule.
817022	FortiNAC does not update Rogue record's Host Name from DHCP fingerprints.
817040	FortiNAC Manager fails to connect to pods configured for L2 High Availabilty with a virtual IP.Manager is querying eth0 IP instead of Virtual IP.
817845	L2 polling can become backlogged in environments where there are a number of hosts with Registered to userid of "NULL".
818504	Linux Persistent Agent fails to install using the .deb package.
765172	Configuration Wizard does not check whether user input subnet masks are valid.
817563	Networks Events view may not load if there are too many unique ports.
820160	Roles view is not available with a Base License.
820375	Meraki devices incorrectly managed with generic RADIUS plugin causing integration issues.
821244	Hosts fail to match Device Profiling rule configured with the FortiGuard Method because the confidence score is negative.
824088	Unable to update existing Registered Host records using Legacy View > Hosts > Import.
825436	IP addresses appended to network device names during discovery are truncated resulting in duplicate device and port names.
825920	Radius CoA fails when the radius request source ip address is the Access Point rather than the Ruckus SZ Controller.
791751	Host Import - importing same file twice results in "null" error and exception in logs.
863826	License Management view in the UI always displays "Base" for the License Name when using subscription licenses. Workaround: Use the License Information Dashboard Widget. Solution: Addressed in version F7.2.1 and greater.
821399	FortiGuard IoT Device Profiler method can result in an error "Request unsuccessful with no errors reported".

Ticket #	Description
826155	24-bit OUIs are not added to the Vendor OUIs list for IEEE MA-M and MA-S blocks.
826653	FortiNAC supplied Dynamic Addresses on the FortiGate can become orphaned in FortiNAC High Availability environments.This can cause unintended network access.
826913	Creating a Network Device Role using Direct Configurations reverts to Logical Networks.
827283	Roaming Guest Logical Network missing from FortiGate Model Configuration.
827870	When a FortiGate device model's IP address is changed in the Inventory view, add/delete/move syslog messages from the new IP address is discarded until FortiNAC services are restarted.
828128	Unable to add Allowed Domains containing underscore symbols.
828242	Layer 3 polling Ruckus ICX7450 switches running 8.0.95g and later may result in fewer arp entries than expected.
828242	Layer 3 polling Ruckus ICX7450 switches running 8.0.95g and later may result in fewer ARP entries than expected.
828500	Attempting to modify the Allowed Domains list may result in an error "Unable to write file: /bsc/campusMgr/bin/nactmp.zones.common (Permission Denied)".
828912	MaaS360 MDM poll fails.
829019	Manager's (NCM) Resume Control button on the Dashboard in a High Availability environment does not restore control to the primary Manager.
829702	FortiGate wireless clients cannot connect after a FortiNAC software upgrade if the FortiGate device model's RADIUS secret is not populated.This is true even though the VDOM radius secret is populated.
830159	Unable to add new Roles from the Policy & Objects > Roles view without additionally defining a group.
835782	Config Wizard: Entering Application Server license shows an error (500 - Unable to compile class for JSP).
795411	Not able to click the "In Use" number of Concurrent Licenses Widget.
870875	Address Group Object "In Use" button does not display accurate results.
	Not all models of all network devices can be configured to perform Physical MAC Address Filtering even though the Admin UI indicates that the configuration can be set. **Resolution**: Hosts can be disabled by implementing a Dead-end VLAN.
	For Portal v2 configurations, web pages that are stored in the site directory to be used for Scan Configurations will not be included when you do an

Ticket #	Description
	Export of the Portal v2 configuration. **Resolution**: The files in the site directory are backed up with the Remote Backup feature, but otherwise keep a copy of these files in a safe place.
	Removing a device from the L2 Wired Devices or L2 Wireless Devices Group does not disable L2 (Hosts) Polling under the Polling tab in Topology.
	The "Set all hosts 'Risk State' to 'Safe'" button changes the status of all hosts marked At-Risk to Safe. However, the status of the individual scans for each host remain unchanged.
	In a Layer 3 High Availability (HA) environment, configWizard must have a DHCP scope defined. Running configWizard without a DHCP scope can cause a failover.
	On FortiNAC appliances with CentOS 7, duplicate log messages may appear in dhcpd.log for each sub interface (eth1, eth1:1, eth1:2, etc).
	System > Settings > Updates > Operating System will only record and display dates of OS updates that are completed through the Administrative UI. If Operating System updates are run via command line using the "yum" tool, the update is not recorded. **Resolution**: Execute Operating System Updates through the Administrative UI in order to maintain update history.
	Only English versions of AV/AS and their corresponding definitions are supported.
	Anti-Virus product Iolo technologies System Mechanic Professional is currently not supported.
	Sophos UTM is currently not supported.

Device Support Considerations

Ticket #	Description
548902	Management of wired ports on Aerohive AP-150W controlled by AerohiveNG is currently unsupported.
679230	Aruba 9012-US currently not supported.If required, contact sales or support to submit a New Feature Request (NFR).
	At this time, integration with Juniper MAG6610 VPN Gateway is not supported.This includes Pulse Connect Secure ASA.
	At this time, integration with Cisco 1852i Controller is not supported due to the device's limited CLI and SNMP capability. For details, see related KB article 189545.
	At this time, integration with Ubiquiti AirOS AP is not supported.Ubiquiti AirOS AP does not have the necessary capabilities to allow for full integration with FortiNAC. The limitations are as follows: - No support for external MAC Authentication using RADIUS. - Limited CLI and SNMP capability. No ability to dynamically modify access parameters (ie. VLANs) for active sessions.
	At this time, Fortinet does not support wired port management for the Cisco 702W. The access point does not provide the management capabilities required.
	At this time, Fortinet is not able to support the Linksys LAPN600 Wireless-N600 Dual Band Access Point.
	Ports on Avaya Networks 4850GTS-PWR+ switches sometimes show "Not Connected" even though the port is active. This is due to multiple ports on the switch using the same MAC Address. This prevents NAC from correctly discerning which are "Connected" versus "Not Connected". There is no workaround.
	Device models for Avaya 4800 switches (and potentially other related models) only support SSH. Device models for Avaya Ethernet Routing Switches only support Telnet. Contact Support if the alternate protocol is required.

Device Support

These changes have been made in FortiNAC Version 9.4.0. These are in addition to the device support added in previous releases.

Version 9.4.0

Ticket #	Vendor
765568	Add support for Huawei AR550E router/switch
765569	Add support for DIGI cellular routers
779607	Add Device support from set mapping emails (2 models)
781634	Add Device support from set mapping emails (Huawei S5700-52P-LI-AC)
787686	S5735-L48T4S-A1 Huawei Versatile Routing Platform Software VRP (R) software CBS350-48P-4X 48-Port Gigabit PoE Stackable Managed Switch with 10G Uplinks CBS350-48P-4G 48-Port Gigabit PoE Managed Switch CBS350-8P-E-2G 8-Port Gigabit PoE Managed Switch CBS350-24T-4X 24-Port Gigabit Stackable Managed Switch with 10G Uplinks Linux Lethe 2.6.18-92cpx86_64 1 SMP Mon Oct 8 10:34:42 IDT 2018 x86_64 Juniper Networks, Inc. srx380-poe-ac internet router, kernel JUNOS 20.4R3-S1.3 S5735-L8P4S-A1 Huawei Versatile Routing Platform Software VRP (R) software Fortigate fwf51E Quidway S9712 Huawei Versatile Routing Platform Software VRP (R) Software Brocade Communications Systems, Inc. FastIron SX 1600 CCB 1st Sessions Court FS108F Meraki MR36H Cloud Managed AP
789282	Add support for Extreme Campus Controller WLC
792686	Huawei AR129CGVW-L Huawei Versatile Routing Platform Software VRP (R) software Cisco NX-OS(tm) nxos.9.3.7.bin, Software (nxos) Juniper Networks, Inc. ex4400-24p Ethernet Switch, kernel JUNOS 21.1R1.11

Ticket #	Vendor
	Aruba R8N85A 6000 48G CL4 4SFP Swch PL.10.09.1000
	Aruba Instant On 1930 8G 2SFP Switch JL680A, InstantOn_1930_1.0.5.0 (139)
	IE1000 Industrial Ethernet Switch, Version: 1.7.0#2018-05-02T18:19:37+00:00
796633	fortigate
	Cisco IOS Software, C1000 Software (C1000-UNIVERSALK9-M), Version 15.2(7)E4
	Aruba R8N87A 6000 24G CL4 4SFP Swch PL.10.08.1010
	Meraki MS355-48X2 Cloud Managed Switch
	Dell EMC Networking OS10 Enterprise.S5224F-ON
801676	HPE Comware Platform Software, Software Version 7.1.070, Release 6327
	SG350XG-24F 24-Port 10G SFP+ Stackable Managed Switch
	SG300-28SFP 28-Port Gigabit Managed SFP Switch
	Linux PA-Mac-Ops-BCKPF-S 4.14.76-release-1.3.0 1 SMP
	Aruba JL725A 6200F 24G CL4 4SFP+370W Swch ML.10.09.1000
	Cisco IOS Software [Cupertino], ISR Software (ARMV8EL_LINUX_IOSD-UNIVERSALK9-M), Version 17.7.1a
	Cisco Sx220 Series Switch Software, Version 1.1.3.1
	CBS350-24P-4G 24-Port Gigabit PoE Managed Switch
	Firewall OCI Unimedsc
	Palo Alto Networks VM-Series firewall
	Canton-Firewall
783982	S5720-12TP-LI-AC
	S5720-36PC-EI-AC
	S5720S-52P-SI-AC
	S5700-10P-PWR-LI-AC
786422	ArubaOS (MODEL: 565), Version 8.7.1.8-8.7.1.8
790006	Netgear S4300 and S3300 Switches
792592	FortiFone X80
566257	Support for Huawei AC6605 wireless controller

System Update Settings

Field	Definition
Host	Set to fnac-updates.fortinet.net
Auto-Definition Directory	Keep the current value.
Product Distribution Directory	Set to Version_9_4
Agent Distribution Directory	Keep the current value.
User	Set to updates (in lowercase)
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).