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Release Notes

FortiADC 7.2.2

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July 31, 2023
FortiADC 7.2.2 Release Notes
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Change Log

Date	Change Description
July 31, 2023	FortiADC 7.2.2 Release Notes initial release.
November 20, 2023	Added Bug ID 0962453 as Known issue.

Introduction

This *Release Notes* covers the new features, enhancements, known issues, and resolved issues of FortiADC™ version 7.2.2, Build 0230.

To upgrade to FortiADC 7.2.2, see Upgrade notes.

FortiADC provides load balancing, both locally and globally, and application delivery control. For more information, visit: https://docs.fortinet.com/product/fortiadc.

What's new

FortiADC 7.2.2 offers the following new features:

FortiADC-VM support for IBM Cloud

You can now deploy FortiADC-VM on the IBM Cloud platform.

Hardware, VM, cloud platform, and browser support

This section lists the hardware models, hypervisor versions, cloud platforms, and web browsers supported by FortiADC 7.2.2. All supported platforms are 64-bit version of the system.

Supported Hardware:

- FortiADC 300D
- FortiADC 400D
- FortiADC 100F
- FortiADC 120F
- FortiADC 200F
- FortiADC 220F
- FortiADC 300F
- FortiADC 400F
- FortiADC 1000F
- FortiADC 1200F
- FortiADC 2000F
- FortiADC 2200F
- FortiADC 4000F
- FortiADC 4200F
- FortiADC 5000F

For more information on the supported hardware models, see FortiADC's Hardware Documents.

Supported hypervisor versions:

VM environment	Tested Versions
VMware	ESXi 3.5, 4.x, 5.0, 5.1, 5.5, 6.0, 6.5, 6.7, 7.0, 8.0
Microsoft Hyper-V	Windows Server 2012 R2, 2016 and 2019
KVM	Linux version 3.19.0 qemu-img v2.0.0, qemu-img v2.2
Citrix Xen	XenServer 6.5.0
Xen Project Hypervisor	4.4.2, 4.5
OpenStack	Pike
Nutanix	AHV

Supported cloud platforms:

- AWS (Amazon Web Services)
- Microsoft Azure
- GCP (Google Cloud Platform)

- OCI (Oracle Cloud Infrastructure)
- Alibaba Cloud
- IBM Cloud

For more information on the supported cloud platforms, see the FortiADC Private Cloud and Public Cloud documents.

Supported web browsers:

- Mozilla Firefox version 109
- Google Chrome version 110

We strongly recommend you set either of the Web browsers as your default Web browser when working with FortiADC. You may also use other (versions of the) browsers, but you may encounter certain issues with FortiADC's Web GUI.

Resolved issues

The following issues have been resolved in FortiADC 7.2.2 release. For inquiries about particular bugs, please contact Fortinet Customer Service & Support.

Bug ID	Description
0932697	GSLB DNS only responds with one IP address even when the internal DNS server replies with two entries.
0925548	L7 DNS SLB stops working intermittently when receiving DNS TCP requests.
0923408	When different users login and manage the system, event log entries may log the wrong user.
0920655	**SLB_Server_ENABLED** alert email is not sent when `health-check-ctrl` is enabled.
0920217	L7 HTTP/HTTPS behaves abnormally when addressbook conflicts occur.
0927795/0903093	Issues occur when resolving CNAME and AAAA records on L7 VS as a result of L7 DNS SLB not forwarding some DNS server failure responses.
0918463	Unexpected reboots occur when too many special kernel error logs are produced.
0916411	Healthcheck declares that all gateways are down when only one of the gateway ports is disabled and the IP changed in the relative port.
0912519	Unable to add address/address6/service group if the name contains a space.
0911638	Incorrect configuration limit imposed on server load balance pool and server load balance real server. Subscription model license incorrectly sets the configuration limit to 512 objects instead of 2048.
0910738	Some FortiADC platforms may fail to upgrade due to insufficient folder space.
0909059	Hyperlink on the website loading with internal domain name as a result of the rule match order that does not allow decompression to work on the response body.
0908807	Malformed packet results when L7 DNS SLB does not correctly handle DNS responses with long CNAME chain.
0908313	AV crashes when upgrading AV engine from FortiGuard under AV traffic.
0908280	L7 FTPS does not work with specific FTP Client.
0903886	SNMP times out when using bulk requests.
0900972	Health check displaying incorrect RTT.

Bug ID	Description
0900830	After an automation rule has been triggered after a long period of time, the memory usage does not revert back to levels prior to triggering the automation.
0900722	In the GUI, pool names remain truncated even when floating the mouse over the field.
0899731	SLB healthcheck does not work properly when using a response string that is also used in the HTTP headers.

Known issues

This section lists known issues in version FortiADC 7.2.2, but may not be a complete list. For inquiries about particular bugs, please contact Fortinet Customer Service & Support.

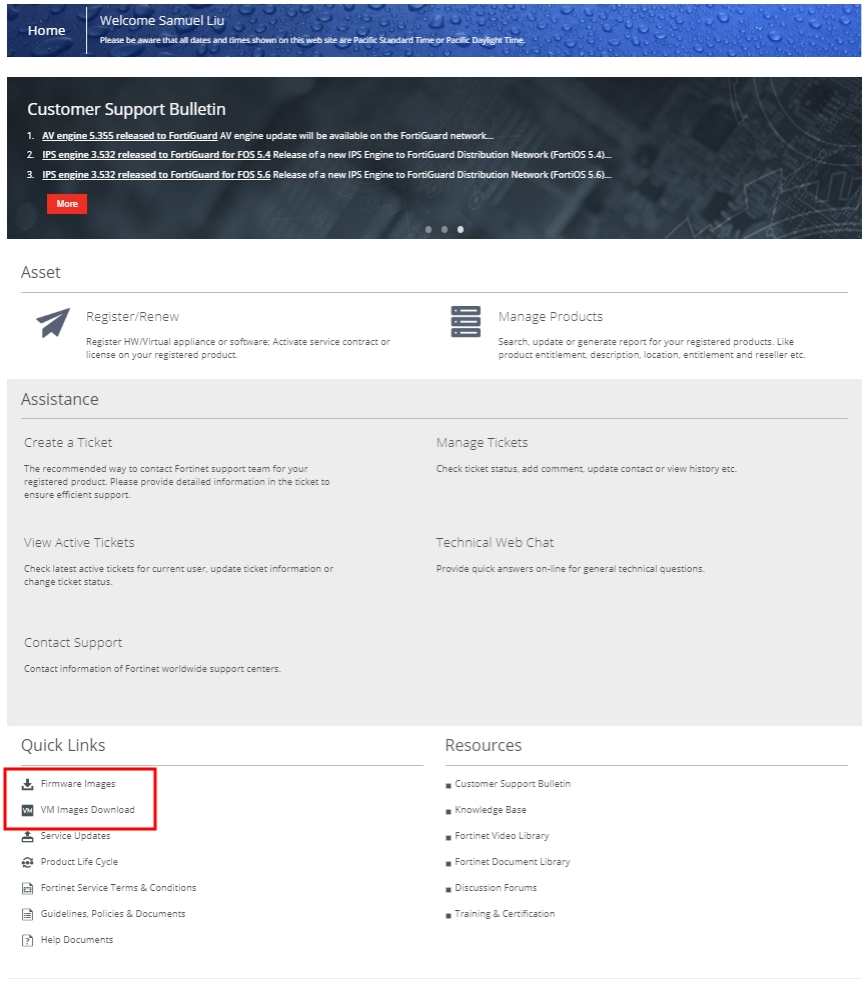
Bug ID	Description
0962453	Missing traffic logs due to miglod memory leak issue.
0935225	**SLB_Server_ENABLED** alert email is sent but the real server name is not listed in the message field.
0934843	"Fail to open port. No such file or directory" message displays in CLI when PPPoE is configured but not connected to the PPPoE server and another interface IP is configured. This does not impact functionality.
0929435	In HA active-passive environment, if the VLAN IP is changed for the first time an event log will be generated to show the MAC change. However the MAC actually used does not change.
0927205	Adding biometrics exception with the URL pattern from WAF logs will fail when choosing "URL". **Workaround**: Users can add the exception from WAF Profile > Exceptions instead and select it in the Biometrics Based Detection policy.
0885240	Due to the FortiGate Cloud portal upgrade, some statistics from FortiADC sandboxes cannot be completely shown on their Sandbox portal. This does not impact FortiADC functionality.

Image checksums

To verify the integrity of the firmware file, use a checksum tool and compute the firmware file's MD5 checksum. Compare it with the checksum indicated by Fortinet. If the checksums match, the file is intact.

MD5 checksums for Fortinet software and firmware releases are available from Fortinet Customer Service & Support. After logging in to the web site, near the bottom of the page, click the Firmware Image Checksums button. (The button appears only if one or more of your devices has a current support contract.) In the File Name field, enter the firmware image file name including its extension, then click Get Checksum Code.

Customer Service & Support image checksum tool



Upgrade notes

This section includes upgrade information about FortiADC 7.2.2.

Supported upgrade paths

This section discusses the general paths to upgrade FortiADC from previous releases.

If you are upgrading to a version that is in a higher version level, you will need to upgrade to the nearest branch of the major level incrementally until you reach the desired version. For example, to upgrade from 5.3.5 to 6.1.5, you will follow the upgrade path below:

5.3.5 → 5.4.x → 6.0.x → 6.1.5

(wherein "x" refers to the latest version of the branch)

7.1.x to 7.2.x

Direct upgrade via the web GUI or the Console.

7.0.x to 7.1.x

Direct upgrade via the web GUI or the Console.

6.2.x to 7.0.x

Direct upgrade via the web GUI or the Console.

6.1.x to 6.2.x

Direct upgrade via the web GUI or the Console.

6.0.x to 6.1.x

Direct upgrade via the web GUI or the Console.

5.4.x to 6.0.x

Direct upgrade via the web GUI or the Console.

5.3.x to 5.4.x

Direct upgrade via the web GUI or the Console.

5.2.x to 5.3.x

Direct upgrade via the web GUI or the Console.

For more information on upgrading from versions earlier than 5.2.x, please see the Upgrade Instructions document for that version.

Upgrading a stand-alone appliance

The following figure shows the user interface for managing firmware (either upgrades or downgrades). Firmware can be loaded on two disk partitions: the active partition and the alternate partition. The upgrade procedure:

- Updates the firmware on the inactive partition and then makes it the active partition.
- Copies the firmware on the active partition, upgrades it, and installs it in place of the configuration on the inactive partition.

For example, if partition 1 is active, and you perform the upgrade procedure:

- Partition 2 is upgraded and becomes the active partition; partition 1 becomes the alternate partition.
- The configuration on partition 1 remains in place; it is copied, upgraded, and installed in place of the configuration on partition 2.

This is designed to preserve the working system state in the event the upgrade fails or is aborted.

Before you begin:

- You must have super user permission (user admin) to upgrade firmware.
- Download the firmware file from the Fortinet Customer Service & Support website: https://support.fortinet.com/
- Back up your configuration before beginning this procedure. Reverting to an earlier firmware version could reset settings that are not compatible with the new firmware.
- You upgrade the alternate partition. Decide which partition you want to upgrade. If necessary, click **Boot Alternate Firmware** to change the active/alternate partitions.

To update the firmware:

1. Go to **System > Settings**.
2. Click the **Maintenance** tab.
3. Scroll to the **Firmware** section.
4. Click **Upgrade Firmware** to locate and select the firmware file.

5. Click  to upload the firmware and reboot.
   The system replaces the firmware on the alternate partition and reboots. The alternate (upgraded) partition becomes the active, and the active becomes the alternate.
6. Clear the cache of your web browser and restart it to ensure that it reloads the web UI and correctly displays all interface changes.

Upgrading an HA cluster

The upgrade page includes an option to upgrade the firmware on all nodes in an HA cluster from the primary node.

The following chain of events occur when you use this option:

1. The primary node pushes the firmware image to the member nodes.
2. The primary node notifies the member nodes of the upgrade, and takes on their user traffic during the upgrade.
3. The upgrade command is run on the member nodes, the systems are rebooted, and the member nodes send the primary node an acknowledgment that the upgrade has been completed.
4. The upgrade command is run on the primary node, and it reboots. While the primary node is rebooting, a member node assumes the primary node status, and traffic fails over from the former primary node to the new primary node.

After the upgrade process is completed, the system determines whether the original node becomes the primary node, according to the HA Override settings:

- If Override is enabled, the cluster considers the Device Priority setting. Both nodes usually make a second failover in order to resume their original roles.
- If Override is disabled, the cluster considers the uptime first. The original primary node will have a smaller uptime due to the order of reboots during the firmware upgrade. Therefore, it will not resume its active role. Instead, the node with the greatest uptime will remain the new primary node. A second failover will not occur.

Before you begin, do the following:

1. Make sure that you have super user permission (user admin) on the appliance whose firmware you want to upgrade.
2. Download the firmware file from the Fortinet Customer Service & Support website: https://support.fortinet.com/
3. Back up your configuration before beginning this procedure. Reverting to an earlier version of the firmware could reset the settings that are not compatible with the new firmware.
4. Verify that the cluster node members are powered on and available on all of the network interfaces that you have configured. (Note: If required ports are not available, HA port monitoring could inadvertently trigger an additional failover, resulting in traffic interruption during the firmware update.)
5. You upgrade the alternate partition. Decide which partition you want to upgrade. If necessary, click **Boot Alternate Firmware** to change the active/alternate partitions.

To update the firmware for an HA cluster:

1. Log into the web UI of the *primary* node as the `admin` administrator.
2. Go to **System > Settings**.
3. Click the **Maintenance** tab.
4. Scroll to the **Upgrade Firmware** button.
5. Click **Choose File** to locate and select the file.
6. Enable the **HA Cluster Upgrade**.
7. Click to upload the firmware and start the upgrade process.

After the new firmware has been installed, the system reboots.

When you update software, you are also updating the web UI. To ensure the web UI displays the updated pages correctly:

- Clear your browser cache.
- Refresh the page.

In most environments, press Ctrl+F5 to force the browser to get a new copy of the content from the web application. See the Wikipedia article on browser caching issues for a summary of tips for many environments: https://en.wikipedia.org/wiki/Wikipedia:Bypass_your_cache.

Special notes and suggestions

7.0.2/7.1.x

- After upgrading to 7.0.2/7.1.x, in Virtual Machine HA environments where both nodes have been installed with certificate embedded licenses you must reinstall those licenses. As some backend certificate files would have been synchronized and overwritten by the HA Peer (due to an existing bug), the certificate file would not be recoverable. Reinstalling the certificate embedded licenses is required to ensure they would work properly where they are needed, such as in ZTNA or FortiSandbox Cloud.

7.0.0

- When deploying the new GSLB based on FortiADC 7.0.0, the verify-CA function will be enabled by default.

6.2.2

- To use the SRIOV feature, users must deploy a new VM.

6.2.0

- In version 6.2.0, the default mode of QAT SSL has been changed to polling.

6.1.4

- Before downgrading from 6.1.4, ensure the new L7 TCP or L7 UDP application profiles are deleted or changed to a profile type that is supported in the downgrade version. Otherwise, this will cause the cmdb to crash.

5.2.0-5.2.4/5.3.0-5.3.1

- The backup configuration file in versions 5.2.0-5.2.4/5.3.0-5.3.1 containing the certificate configuration might not be restored properly (causing the configuration to be lost). After upgrading, please discard the old 5.2.x/5.3.x configuration file and back up the configuration file in the upgraded version again.

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