



Pulse Secure Virtual Traffic Manager: Release Notes

22.2r1

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New Features

Release 22.2r1

The following table describes the major features that are introduced in this release.

Report Number	Features	Description
VTM-45466, RFE-1417, SR34618	JWT TrafficScript support for parsing, validation, and generation of JWS tokens	New TrafficScript functions have been provided to parse, validate and generate JWT tokens. Support is only for JWS tokens and supports algorithms HS256, HS384, HS512, RS256, RS384, RS512, ES256, ES384, and ES512.
Pulse Secure Virtual Web Application Firewall Features		
<p>The Traffic Manager will install version 4.10-12 of Pulse Secure Virtual Web Application Firewall (vWAF). Version 4.10-0 included a number of important internal updates, including migrating the codebase to Python 3.</p> <p>Before upgrading from version 4.9-x to version 4.10-x, users must ensure that any Python scripts they have included in script libraries are compatible with Python 3.</p> <hr/> <p> Resource Requirements now includes a recommendation that virtual appliances running vWAF should have a RAM allocation of at least 4GB. Version 4.10-x of vWAF should be expected to consume approximately 500MB more system RAM than previous versions.</p> <hr/>		

Product Compatibility

You can install and use this product version on the following platforms:

Software

- Linux x86_64: Kernel 3.10 - 5.13, glibc 2.17+

For Route Health Injection: ncurses 5 (libncurses.so.5, libtinfo.so.5)

Containers

- Docker: 1.13.0 or later recommended

Cloud Platforms

- Amazon EC2 - as a virtual appliance or native software install
- Microsoft Azure - as a virtual appliance
- Google Compute Engine - as a virtual appliance or native software install

Hardware Platforms

- Bare Metal Server - for information on qualified servers, see the Pulse Secure Virtual Traffic Manager Hardware Compatibility List at <https://www.ivanti.com/support/product-documentation>



Beginning with Release 21.4 and later, you cannot create a bootable USB drive.

Virtual Appliance Editions

- VMware vSphere 6.5, 6.7, 7.0
- Microsoft Hyper-V Server 2016
- Microsoft Hyper-V under Windows Server 2016 and 2019
- QEMU/KVM (RHEL/CentOS 7.x; Ubuntu 18.04, 20.04)

Resource Requirements

Virtual appliances should be allocated a minimum of 2GB of RAM. Virtual appliances running Pulse Secure Virtual Web Application Firewall should be allocated a minimum of 4GB of RAM.

For a virtual appliance upgrade to succeed, a minimum of 2.7GB must be available on the /logs partition. To confirm the available free disk space, use the **System > Traffic Managers** page of the Admin UI.

Large Objects in the Webcache

A Traffic Manager running version 20.1 or later will be unable to store objects greater than 2GB in the web cache, even if the web cache is enabled and all cacheability conditions are met. If you rely upon this feature, please contact Technical Support through the usual support mechanism (see [Technical Support](#)).

GeoIP database

VTM-43072, RFE-1472 The database used by the Traffic Manager to look up the geographic location of incoming requests based on their IP address was removed from the software installation package and appliance images in version 20.3 in order to better comply with various privacy protection laws. This database is used when performing Global Load Balancing, when displaying the Activity Map or using the geo.* TrafficScript functions.

Update packages containing the most recent version of this database can be obtained from the [Ivanti customer portal](#). The database present in existing appliances or installations that are upgraded to this version will be copied into the new traffic manager installation and will continue to be used until an update package with a newer database is applied. VTM-43072, RFE-1472



The GeoIP database already present in Traffic Manager instances that are upgraded to this version is retained, and continues to be used until an update package with a newer database is applied.

Support for software running on RHEL/CentOS 6

VTM-43879 Version 20.3 was the last release to support 2.6.32-based kernels or glibc 2.12. Versions from 21.1 onwards require kernel version 3.10 or later, and glibc 2.17 or later, as described in [Product Compatibility](#).

In particular, this means that it is not possible to install version 21.1 or later on a RHEL/CentOS 6 system, or to upgrade an existing Traffic Manager instance on RHEL/CentOS 6 to version 21.1 or later.

Fixed Issues and Other Changes

The following table lists issues that have been fixed and are resolved by upgrading to the named release.

Release 22.2r1

Report Number	Description
Security	
VTM-46657	Fixed an issue which could lead to heap buffer overflow as mentioned in CVE-2023-4863.
VTM-46643	Fixed a security issue CVE-2022-4304 related to openssl.
VTM-46644	In vTM, to store the user passwords SHA256 is used now instead of MD5.
VTM-46645	Upgraded nhttp2 to 1.49.0 which fixes several security issues. CVE-2020-11080,CVE-2019-9511,CVE-2019-9513
VTM-46646	Upgraded gorilla websocket to version 1.5.0 which fixes CVE-2020-27813
VTM-46647	Upgraded curl and curl-nss to 7.84.0 which fixes several security issues. CVE-2021-22945, CVE-2021-22946 ,CVE-2021-22947, CVE-2021-22897, CVE-2021-22898, CVE-2021-22901, CVE-2021-22876, CVE-2021-22890, CVE-2020-8286, CVE-2020-8285, CVE-2020-8284, CVE-2020-8231, CVE-2019-15601, CVE-2019-5481, CVE-2019-5482, CVE-2019-5435, CVE-2019-5436, CVE-2018-16890, CVE-2019-3822, CVE-2019 3823, CVE-2018-14618, CVE-2018-0500, CVE-2018-1000300, CVE-2018-1000301
VTM-46648	Upgraded libpng to version 1.6.37 which fixes CVE-2019-7317
SNMP	
VTM-46649	Fixed an issue which gives a wrong picture about the available free memory in the system.
Configuration	
VTM-46650	Fixed an issue where TIP becomes unconfigurable if VA is restored without machine specific information.

Report Number	Description
Administration Server	
VTM-46651	Fixed the radio button in "Event from" section which even after selecting "Some Pools" couldn't retain the selection.
VTM-46652	The fix is to reflect the bind IP properly in UI and configuration files when it's changed from UI so that user can still access GUI smoothly post modification.
VTM-46653	Fixed an UI related issue which didn't give enough information on how to add multiple email addresses for alerting events. Both comma and space can be used as delimiter now as per UI info.
Connection Processing	
VTM-46654	Modified the documentation for traffic script function pool.use() to reflect that it may not resolve a hostname to a reachable IP address.

Pulse Secure Virtual Traffic Manager Appliance

The following table lists issues that have been fixed and are resolved by upgrading to this release.

Report Number	Description
Virtual Appliance	
VTM-46655	Addressed the initial network setup issue, when there is no DHCP setup.
Cloud Platforms	
VTM-46656	Fixed an issue which could lead to IPv4 associations being not displayed properly when vTM software version is installed on AWS CentOS 7.

Pulse Secure Virtual Web Application Firewall

Report Number	Description
WAF	
PRS-418947	Fixed an issue with Baseline protection deny because of PDF parsing failure.

Report Number	Description
WAF-1172	Fixed the issue by enabling the Logrotator for all the log files generated by vWAF.
WAF-1173	Handled the exceptions ReadTimeout and increased the request timeout second.
WAF-1174	Internal Security Improvement. Baseline updated with CVE-2021-44228.
WAF-1175	WAF Debug binary is now available for 4.10.0006, 4.10.0007, 4.10.0008. Modified the CxFreeze(open source) code to generate debug binary.
WAF-1176	Fixed the issue by code changes related to Python 3 generated by vWAF.
WAF-1177	Fixed the issue by enabling modification of telemetry config via existing REST API generated by vWAF.

Known Issues

The following table lists the Known issues in release 22.2r1.

Report Number	Report	Description
VTM-34654	KVM Network Interface Card renaming	In rare circumstances a KVM host may change the PCI addresses of a virtual appliance's network cards after a reboot, resulting in the network interface labels changing. This can be fixed by removing the configuration from the non-existent card on the traffic manager 'Networking' page and re-adding it to the correct card.
VTM-38881	Obsolete counters are missing from old REST API versions	Obsolete counters removed from version 6.0 of the status API are missing in versions 5.X, despite the schemata published with the product claiming they are still present.

Upgrade Instructions

Upgrading to 22.2r1

22.2r1 can be installed directly using any supported installation mechanism. Traffic manager software installations running 22.2 can be upgraded directly to 22.2r1 using any supported upgrade mechanism. Traffic manager instances (appliance or cloud) running release 22.2 can be upgraded directly to 22.2r1 using any supported upgrade mechanism.

To learn more about upgrading your Traffic Manager, see the [Pulse Secure Virtual Traffic Manager: Installation and Getting Started Guide](#) applicable to your product variant.

Documentation

Ivanti documentation is available at <https://www.ivanti.com/support/product-documentation>.

For policy reasons, security issues are not normally mentioned in release notes. To find more information about our security advisories, see the [security advisory](#) page on the Ivanti website.

Technical Support

Full support for version 22.2 will be available for three year from the release date of 15th July 2022.

Full support for version 22.1 will be available for one year from the release date of 21 April, 2022.

For more information, see the End of Support and End of Engineering Schedule notices at the following location:

https://forums.ivanti.com/s/article/Product-End-of-Support-End-of-Engineering-Schedule-Pulse-Secure-Traffic-Manager-vTM?language=en_US&psredirect

For additional information or assistance, contact Ivanti Support Center:

- <https://forums.ivanti.com/s/contactsupport>
- support@ivanti.com

For technical support resources, browse the Technical Support website

<https://forums.ivanti.com/s/contactsupport>.

Revision History

The following table lists the revision history for this document:

Revision	Revision Date	Description
7.0	22nd March,2024	Revisions for release 22.2r1
6.0	23rd January, 2024	Revisions for release 22.7R1
5.0	14th October, 2023	Revisions for release 22.6R1
4.0	18 July, 2023	Revisions for release 22.5R1
3.0	15 October, 2022	Revisions for release 22.3R1
2.0	July, 2022	Revisions for release 22.2.
1.0	21 April, 2022	Release 22.1 release Notes created.