



TeraVM Classic - Goal Seeking Controller Release Notes

TeraVM Classic GSC Release 14.7



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TeraVM User Documentation, Online Training Guides and Videos are available on the documentation portal: <https://avcomm.viavisolutions.com/login-account>

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Chapter 1. What's New in this Release

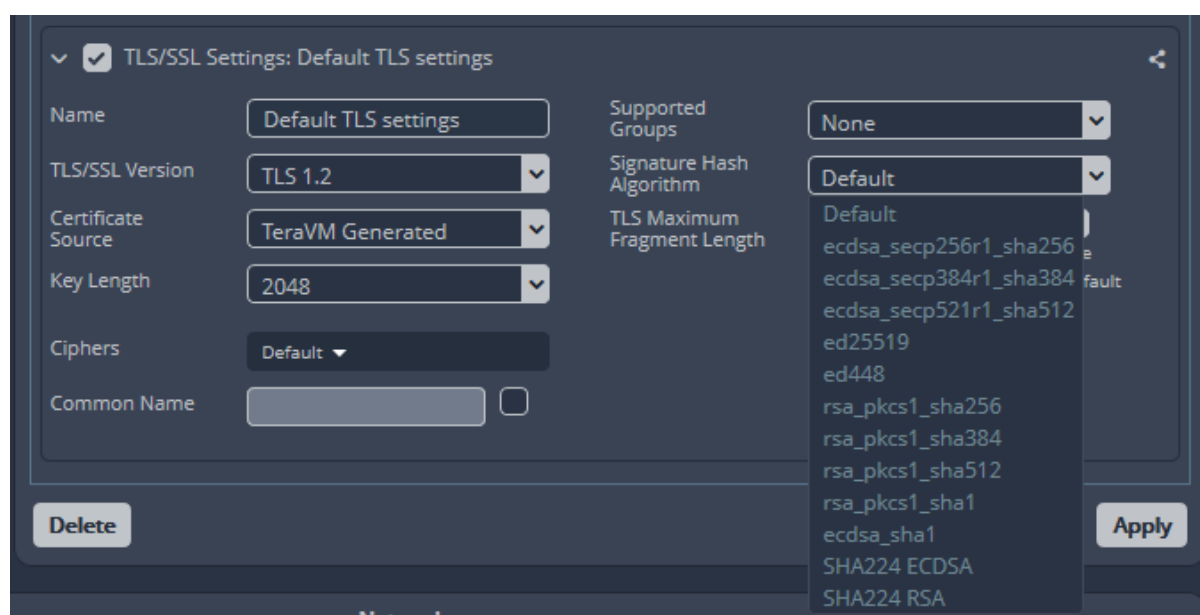
This section details what is new in this release.

1.1 Server-Side TLS Settings Configuration

The **Signature Hash Algorithm** field is added to the TLS/SSL Settings in tests, Application Mix > Application Settings, that use TLS 1.2 or TLS 1.3. TLS 1.2 and 1.3 signature algorithms extensions allow Clients to signal supported and preferred signature algorithms and hash functions. When using an SUT in TeraVM, the **TLS Signature Hash Algorithm** field can be used to ensure that both Client and Server uses the expected signature algorithm.

For TLS 1.3, the algorithm options available are: **Default, ecdsa_secp256r1_sha256**.

For TLS 1.2, the algorithms options are shown in the following image.



Chapter 2. Release Compatibility

This section contains changes between this release and the last release.

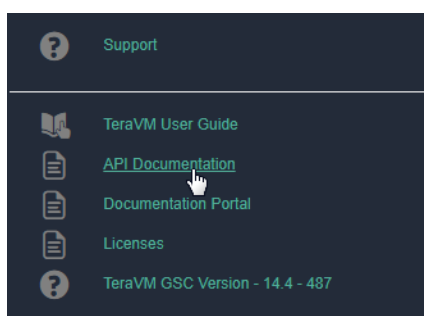
2.1 New Test Names in 14.7

No new tests were added in this release.

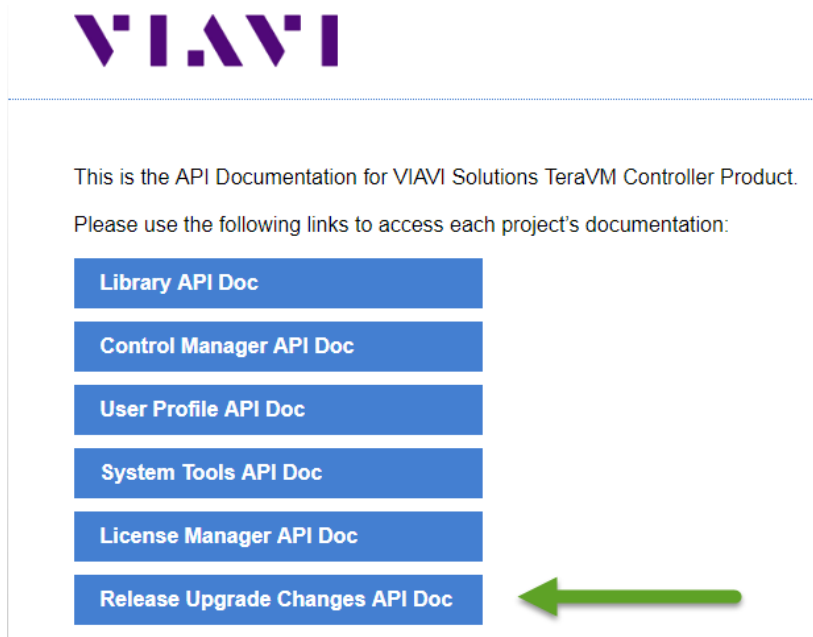
2.1.1 REST API Changes

Detail about the changes made to the REST APIs can be found at the API Documentation web page.

1. From TeraVM Controller, either Workspace or Library, click the help icon and select the API Documentation. *The Documentation Landing page opens.*



2. From the Landing page select *Release Upgrade Changes API Doc* button, shown below.



3. Select the link that details the changes you want to see. *The Changes to Release page opens.*

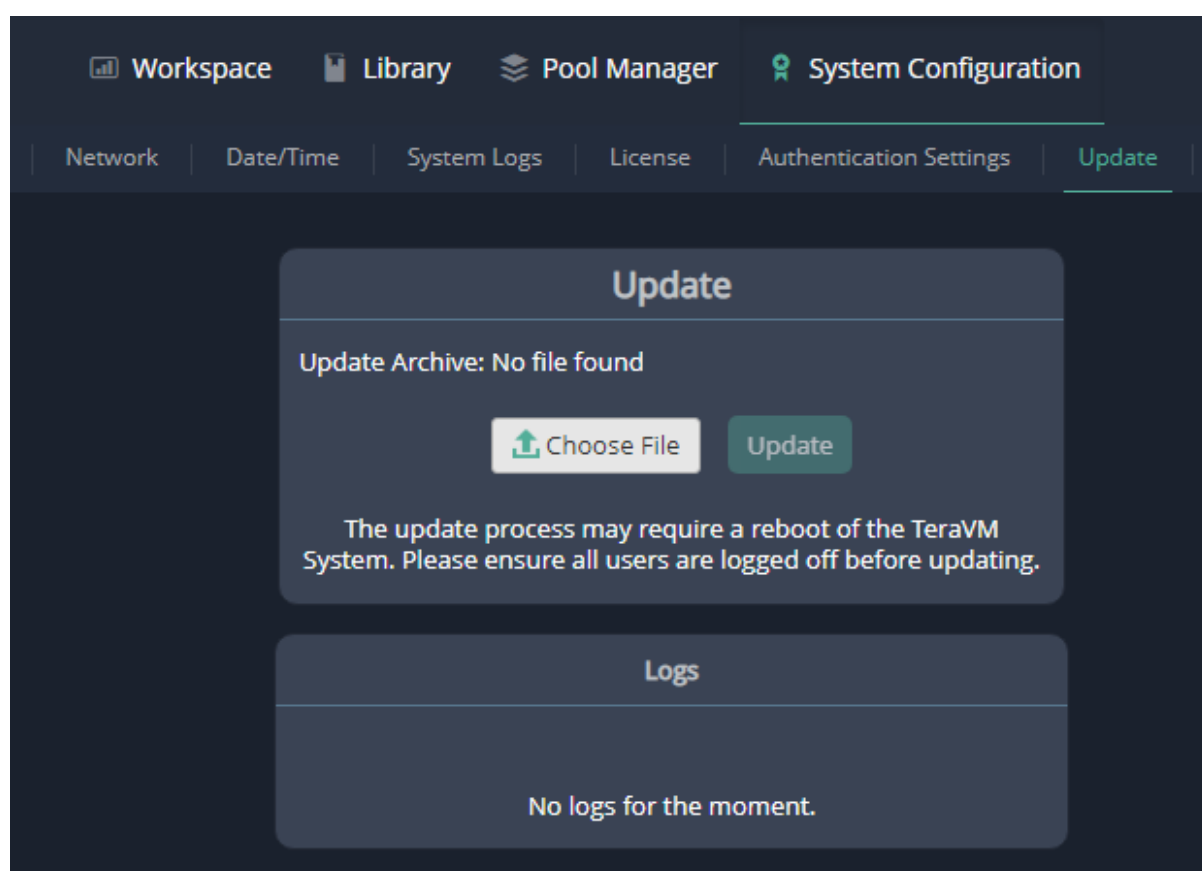
Chapter 3. Patches

In the case where you need to apply a patch from VIAVI, please use the steps that follow. All previous patches between the last and current release are included in this release.

Prerequisites

- The *Update* page is not used for upgrading to a new version of TeraVM GSC, upgrades are carried-out using the Streamlined Upgrade process.
1. Click the *System Configuration* tab and select the *Update* page.
 2. Use the **Choose file** button to browse for the update file
 3. Click **Update** button.
 4. Ensure that all users are logged off before saving your updated configuration

Once you have made an update it is recommended that you reboot the TeraVM Goal Seeking Controller to ensure any required changes are made.



Chapter 4. Upgrading to this Release

TeraVM Goal Seeking Controller uses the Streamlined Upgrade process for upgrading to the latest release.

4.1 Upgrading to 14.6

As part of the upgrade to 14.6 you need to manually edit the TeraVM Classic GSC VM settings and change the Memory from 4GB to 6GB (6144MB).

4.2 Streamlined Upgrade Process

Use this procedure to upgrade the TeraVM GSC. The upgrade script considers all the TeraVM Virtual Machines that are powered on and on the same Comms network for upgrade.

Table 4-1. Supported TeraVM Controller Versions

14.3-313	14.3-358	14.3.1-406	14.4-487
14.4.2-544	14.5-665	14.6-791	14.7-902

1. Check that you are upgrading from a Supported TeraVM Controller Version.
2. In the vSphere Client, right-click the TeraVM MA and select **Open Console**, if it is not already open. *The TeraVM Management Assistant Opens.*
3. From the icons displayed on the TeraVM Management Assistant desktop, double-click the **03 Upgrade TeraVM Testbed** icon. The Upgrade TeraVM Testbed script runs. Enter parameters as prompted:

```
upg>TeraVM Upgrade Script upgrade.pl-0.01...
upg>Using VMware-Perl-Sdk-5.5.0... upg>Using perl-v5.18.4...
upg>Reading config settings from: "/usr/local/share/perl5/diversifEye/Upgrade/upgrade.cfg"...
ESXi Host IP Address/Hostname[10.110.1.11]: 10.110.1.11
ESXi Host Username[root]: root
ESXi Host Password[Password1234]: Password1234
IP Address or VM Name of TVM-GSC[10.110.2.22]: 10.110.2.22
```

4. Press **Enter** to accept the default empty values for the following:

```
TVM-GSC User[teravm]:
TVM-GSC Password[teravm]:
```

5. A connection is established to the ESXi Host IP Address/Hostname, enter **y** to continue.

```
upg>Connecting to: "10.110.1.11"...
upg>WARNING: OAUTH is apparently not supported by the TVM-GSC at: "10.110.2.22"
"! Assuming no token is necessary for access to the testbed...
Upgrading TeraVM Testbed on ESXi Host: 10.110.1.11...
VM           From           To           Upgrade
TVM-GSC-001  1.7.2-1672  1.9-1893    Yes
```



```
TVM-2-003    3.0.39-1248    3.0.49-1473    Yes
TVM-2-004    3.0.39-1248    3.0.49-1473    Yes
Proceed with upgrade(y|true|n|false) [yes] :y
```

6. The upgrade script automatically upgrades the TeraVM Controller and changes and deploys the Test Modules.

```
Final Upgrade Status:
Name          State      Sec Phase      Log
TVM-GSC-001   OK         949
TVM-2-003     OK         701
TVM-2-004     OK         210

upg>All VMs upgraded OK.
upg>Disconnecting from: "10.110.1.11"...
Type ENTER to dismiss:
```

7. The upgrade is complete, press **Enter** to dismiss.

Chapter 5. Platforms

This chapter details the supported: certified hardware, hypervisors, operating systems and web browsers.

5.1 Hardware Platforms

The matrix below shows which hardware TeraVM has been certified on.

Table 5-1. Certified Hardware

Cisco UCS		DELL	
Model	NIC	Model	NIC
C240	Cisco VIC 1285 and 1385 PCIe Ethernet NIC (40Gig)	R640	Intel X550 Dual Port 10G Base-T
			Intel X710 Dual Port 10Gb
			Broadcom (1G)
C220	Cisco Systems Inc VIC 1225 PCIe Ethernet NIC (10Gig)	R630	Intel 82599EB 10-Gigabit SFP
			Intel 10-Gigabit X540-AT2
		R620	Intel 82599EB 10-Gigabit SFP
			Broadcom (1G)

5.2 Hypervisors

This release has been tested with the following hypervisors and versions (AWS, XEN and Azure platforms are tested with major releases):

Table 5-2. Hypervisors

Hypervisor	Hypervisor Version	TVM Version	TVM Types	vSwitch Types	Virtual NIC
ESXi‡	ESXi 5.5_U1 and U3 ESXi 6.5_U2**	3.0.95	See ‡	VMXNET3	VMware VMXNET3 virtual interface

** The Dell R640 support requires VMware ESXi 6.5 U2 Dell EMC Customized A04 and CISCO Custom Image for ESXi 6.5U2 GA.

‡ Additional ESXi Information

- ESXi supports TVM-2 to TVM-5, TVM-7, TVM-8 and TVM-16.
 - TVM-7 is supported for VPN applications only.
 - TVM-8 and TVM-16 are for use with Mellanox Cards. They require a minimum version of ESXi of 5.5.0. Unlike other Test Module types which have only one core for interrupt processing, TVM-8 and TVM-16 use half of their cores for control.
- ESXi supports both Direct Path/DPIO and virtual switch configurations.
- You can now specify a solid-state drive when deploying TeraVM.
- TeraVM is now also tested with ESXi version 6.0 and 6.5 but is not fully certified in performance tests.

5.3 Virtual Machine Requirements

The following table shows TeraVM Virtual machine CPU and Memory requirements.

Virtual Machine	CPU	Memory
TeraVM GSC	2 vCPU	6 GB
TVM-1	1	2.5 GB
TVM-2	2	2.5 GB
TVM-3	3	5 GB
TVM-4	4	7.5 GB
TVM-5	5	10 GB
TVM-7	7	15GB
TVM-8	8*	17.5GB
TVM-16	16*	37.5GB

*Generally, Test Modules use one core for interrupt handling, and the rest for traffic generation. However, TVM-8 and TVM-16 only use half of their CPU cores for traffic generation, the rest is for interrupt handling.

5.4 Operating System

The following table shows the operating systems that TeraVM Java Client has been tested with.

Table 5-3. Operating Systems

Operating System	Version
Windows	7,8,10
Fedora (32-bit)	22

5.5 Web Browsers

TeraVM is developed to work with modern web browsers that support HTML5. The following table shows the web browsers that TeraVM has been tested with. VIavi will make every reasonable effort to support older versions.

Table 5-4. Web Browsers

Browser	Version
Mozilla Firefox	68
Internet Explorer	11
Google Chrome	76

Chapter 6. Bugs Fixed and Known Issues

This chapter details any bugs fixed or known issues at the time of the release.

6.1 Bugs Fixed

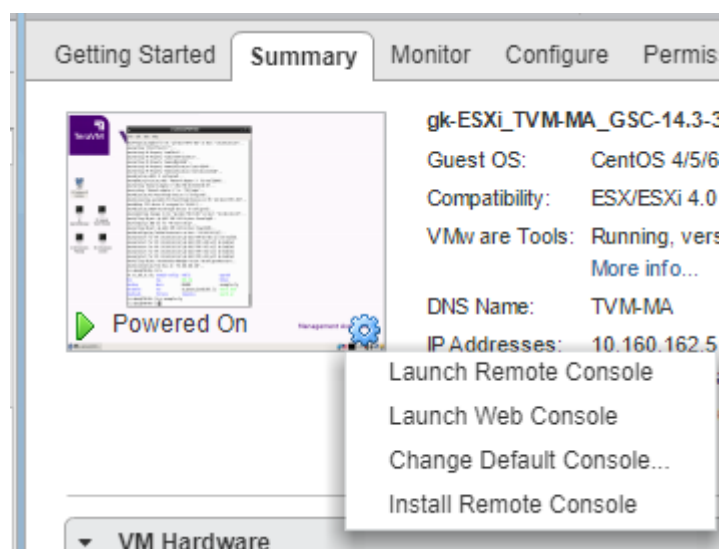
Not applicable for this release.

6.2 Known Issues

These are the known issues in this release. For further details, please contact VIAVI support.

6.2.1 MA Console Does Not Always Open

Along with VMWare we recommend that when using the ESXi Console on the MA, please select the Remote Console option instead of the Web Console option, as shown in the following image.



Appendix A: TeraVM Documentation Set

All TeraVM GSC Guides are available for download at the TeraVM documentation portal:

<http://ats.aeroflex.com/login-account>

The complete TeraVM Goal Seeking Controller documentation set is listed below.

Table 6-1. TeraVM User Guides

User Guides	Description
Release Notes	New features / Changes in the latest release. (Includes supported versions).
TeraVM GSC User Guide	TeraVM overview includes setting up and running tests in the Goal Seeking Controller.
TeraVM GSC Licensing Guide	How to set up and configure licensing features, e.g. set up license servers and license reporting.

Table 6-2. Hypervisor/Cloud Specific TeraVM Setup Guides

Hypervisor/Cloud Environment	Document Name
ESXi	TeraVM GSC on VMWare Set Up Guide

Table 6-3. TeraVM Reference Guides

Reference Guides	Description
TeraVM Metrics Guide	Statistics/Metrics available with TeraVM



For further information please contact:

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www.viavisolutions.com/wirelessvalidation