

TeraVM Release Notes

TeraVM Release 14.2.2

Statement: You may have recently heard that VIAVI closed the acquisition of Cobham's AvComm and Wireless Validation businesses (formerly known as Aeroflex Test Solutions). These market-leading solutions join an already powerful VIAVI portfolio of award-winning solutions that can be found in millions of installs around the world.



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

For support queries, please log a call on the https://support.viavisolutions.com/.

For accounts, please contact your local VIAVI Account Representative. You can also contact support using the mail alias for your region:

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China	TeraVMSupport.CN@viavisolutions.com
EMEA	TeraVMSupport.EMEA@viavisolutions.com
North America	TeraVMSupport.USA@viavisolutions.com
Japan	TeraVMSupport.JP@viavisolutions.com
Korea	TeraVMSupport.KO@viavisolutions.com
South East Asia	TeraVMSupport.SG@viavisolutions.com
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Statement

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Table of Contents

Chapter 1	. What's New in this Release	5
1.1	HTTP Multiple URL	5
1.1.1	User Agent	5
1.1.2	Test Sharing	6
1.1.3	Uploading Request URLs File	6
1.1.4	Metrics	7
1.1.5	URL File Validation	7
Chapter 2	. Release Compatibility	8
2.1	New Test Names in 14.2.2.	8
2.2	Changes to JSON Test Definitions	8
Chapter 3	Patches	9
3.1	Installing a Patch	9
Chapter 4	. Upgrading to this Release	10
4.1	Upgrade from 13.1 Pre-Upgrade Step	12
4.2	Upgrading Off Controller Repository	13
4.3	Check Your Current Versions against Upgrade Installer	14
4.3.1	Download and Install Upgrade	15
4.4	Streamlined Upgrade Process	17
Chapter 5	Platforms	19
5.1	Hardware Platforms	19
5.2	Hypervisors	20
5.3	Virtual Machine Requirements	21
5.4	Operating System	21
5.5	Web Browsers	21
Chapter 6	Bugs Fixed and Known Issues	22
6.1	Bugs Fixed	22
6.2	Known Issues	23
6.2.1	EPC Adaptive Test TVM-RanToCore Deployment Issues	23
6.2.2	Difficulty Connecting to UI When Using Pcap Repo	23
6.2.3	TeraVM Executive Connectivity Lost	24
6.2.4	Transitioning from Primary to Failover Licence Server	25
6.2.5	Missing Buttons from Java Client GUI	25
Appendix	A: TeraVM Documentation Set	26

Chapter 1. What's New in this Release

The following sections detail what is new in this release.

1.1 HTTP Multiple URL

The HTTP Multiple URL feature can be applied to HTTP/S Throughput and HTTP CPS Adaptive Tests. When a test is configured correctly, a text file containing up to one million URLs can be uploaded using the HTML5 UUI to an Application Profile. *HTTP Multi URL* can be added to a test as an *APP MIX* or from the *APP PROFILES* list from the Components tab.

An Application Mix can have more than one file associated to it, that is, for tests with more than one applicable Application Profile, though a single Application Profile will have just one file. The following image shows the **User Agent** and **Request URLs** fields in an HTTP Throughput tests Application Settings.

		HTTP Thro	ughput		
Application Profile Name	e HTTP Throughp	out			
Application Settings	TCP Settings Con	straints			
Client			Server		
Number of Applications			Page Size	200000000	Bytes
HTTP Version	1.1	~	Port	80	•
Request Method	GET	~	DSCP	0x00	
Reqs/Connections	0		Pad HTTP Requests/Respon	uses	
Delay bet. Requests	0	tinnine ms	to the MSS size		
Delay bet. Connections	0	🗘 ms			
TCP Source Port	Random (1024-65535)	~			
DSCP (0x00				
Close Connection (Disabled	~			
Padding Size	0	Bytes			
User Agent	Chrome/Windows10/PC	~			
Request URLs	URL.txt	L 🗙			
-	10	00%			
> TLS/SSL Settings					
Delete					Cancel Apply

1.1.1 User Agent

The **User Agent** field can be applied to the application profile. This is an optional field that is set to *None* by default and can be used to add the user agent string information to the HTTP request header. When the default setting is used for this field, the string *diversifEye* is sent in the HTTP request header. Several predefined values can be selected from for this field from the provided drop-down list, or a user-defined string can be entered.

1.1.2 Test Sharing

Tests configured for HTTP Multiple URL can be shared in the library along with any associated URL files that are used in the Application Mix, and can be checked out along with the saved test to a Workspace. For sharing tests on a TeraVM Centralized Executive deployment, you must ensure that both the local TeraVM Executive and the central TeraVM Executive have been upgraded to the same version of TeraVM.

Limitations in storage for files are in place for the Library, 100 MB, and the Workspace, 100 MB. This is the total storage available for all users for all URL files combined.

1.1.3 Uploading Request URLs File

Use this procedure as an example for uploading an HTTP Multi URL file in Static Mode. Static Mode is the example shown in this procedure, this functionality is available in all Modes, that is, Static, Fixed Step, Max Capacity, and Adaptive Mode.

Prerequisites

- When setting up a test you can specify the number of HTTP Clients used in a test in the Application Settings menu. The following is an example of how the test is run: if a file with one million URLs is used and you specify the Number of Applications as 10,000 (HTTP client applications) then each HTTP Client will get 100 URLs. The number of applications must not be higher than the number of URLs included in the request URL file.
- Each client application will serve a URL and then wait for the reply from the server. The reply will contain the number of bytes configured in the page size. The higher the value for the **Page Size**, the higher the amount of time it will take for each client application to serve all the URLs that are assigned to it. The default size of the **Application Settings > Page Size** varies on tests, for example: *HTTP Throughput* Page Size = 2,000,000,000 Bytes, whereas *HTTP CPS* Page Size = 10 Bytes.
- 1. Ensure that the HTTP (an HTTP Throughput or HTTP CPS) test is in your Workspace. If testing with a firewall check it is configured on the SUT.
- 2. Click the **Strategies** tab and if not already selected, select the *Test Module Assignment* **Static** check box, adjusting the number of Test Module Pairs as necessary.
- 3. Click the **Objectives** tab.
- 4. In the Application Mix, click on the HTTP Application Profile in the Donut chart. *The Application Settings tab opens.*
- 5. In the **Number of Applications** field, select the check box and enter the number of applications to be used, for example 10,000. The number of applications must not be higher than the number of URLs included in the request URL file.
- 6. From the **User Agent** drop-down box select the user agent you want to use for the test, you can also enter your own string.
- 7. In the Request URLs field and click the upload button, to locate the URL file to upload.
- 8. Select the Metrics tab and check the URL First Transmit and the HTTP Response Codes check box.
- 9. Run the test.

1.1.4 Metrics

The test will go through each line in the file where each URL entry will generate HTTP requests and responses on each URL. When the test reaches the end of the URL list, it goes back to the start of the list and starts again. The response codes that are generated are continuously counted and reported as metrics. The request codes are only counted and reported as metrics on the first iteration of the URL list. The available new metrics are as follows:

Metrics	Check Box
HTTP	URL First Transmit
	HTTP Response Codes
	• 100-199/201-299 Responses
	200 Responses
	• 300-399 Responses
	400-499 Responses
	Other Responses

1.1.5 URL File Validation

The following validations are carried out on the URL file:

- A maximum of 1,000,000 URL entries are accepted in the file.
- At least one 1 URL should be present, no empty files are allowed.
- No empty lines in the URL file are allowed.
- For each URL entry: minimum length 1, maximum length 4,255.
- No binary files are allowed, only text.

An example of URLs in the correct format follows, notice that the protocol identifier, such as http:// or https://, is not used in the list of URLs.

```
bbc.co.uk/sports
google.com/news
yahoo.com/sports
microsoft.com/games/crimsonskies
natives.co.uk/skijobs/interview.htm
```

Chapter 2. Release Compatibility

This section discusses the release compatibility with the previous release in terms of API changes.

2.1 New Test Names in 14.2.2.

No new test names were introduced in this release.

2.2 Changes to JSON Test Definitions

New parameters are introduced for using the HTTP Multiple URL feature. These changes are documented in the API documentation.

Chapter 3. Patches

All previous patches between the last and current release are included in this release.

3.1 Installing a Patch

Use this procedure to install a patch using the Web Administration Interface.

- 1. Download the patch from the relevant folder. Close any open TeraVM user interfaces and stop any tests.
- 2. In your browser, enter the IP address of the Executive/Controller.
- 3. Enter your User Name and Password and click Sign In.
- 4. Select Utilities.
- 5. From the Welcome to TeraVM page, select Upgrade System and login using:

User Name: driverAdmin Password: diversifEye

Figure 3-1. Welcome to TeraVM



- 6. Select the Choose File button.
- 7. Select the appropriate patch file and click **Open**.
- 8. Click **Upload**. The file uploads in several seconds.
- 9. Click **Upgrade** and wait for the patch to complete upgrading.

Chapter 4. Upgrading to this Release

As a general guideline, when upgrading to a new version of TeraVM, deploy the new TeraVM Management Assistant (TeraVM MA) and remove the previous version. The TeraVM MA is used for deploying new Test Modules, and when moving from TeraVM 11.4, it is used to deploy a TeraVM Executive.

To use the Streamlined Upgrade Process, see *4.4 Streamlined Upgrade Process*. Otherwise, use the following sequence of actions for the upgrade:

Required Upgrades

- TeraVM Executive (TeraVM) see Section 4.3.1 Download and Install Upgrade. If your upgrading from 11.4, then you must deploy an Executive from the new TeraVM MA see the TeraVM VMWare ESXi Setup Guide for more information.
- TeraVM Controller (TeraVM and d500/d1000) see Section 4.3.1 Download and Install Upgrade.
- Delete the old Test Modules and then redeploy new Test Modules (TeraVM) see the relevant platform setup guide.
- Upgrade Off Controller Repository (if using an Off Controller Repository) see Section 4.2 Upgrading Off Controller Repository.

Optional Upgrades

• Cybersecurity (TeraVM).

For more release specific guidelines, you must follow the conditions below and refer to the appropriate TeraVM Setup Guide for your platform.

Important: You must check to see if your upgrade process is impacted by any of the following conditions.

Installation Conditions

• Centralized Executive Upgrade

If you are using a Centralized Executive and planning to upgrade, ideally all your Executives should be upgraded to the same version or at least the Central Executive is the newest.

• Upgrading from 13.1

If upgrading from 13.1 to 13.2 or, 13.3, 13.4, 13.4.1, 13.4.2, 14.0, 14.1 you must follow the upgrade procedure from Section 3.1, for both the Controller and the Executive. This is to ensure that you do not encounter a timeout while upgrading them.

• Pre-12.0 Introduction of TeraVM Executive

TeraVM 12.0 was a major release, with many new features and architectural changes to the product. Therefore, if you are migrating from a pre-12.0 release, you must deploy the TeraVM Test Modules and the TeraVM Executive to use TeraVM successfully.

• Pre-12.1 to Post 12.1: Authentication Service

If upgrading from a pre-12.1 to post 12.1 release, you will see the message The Authentication Service From the Executive Machine Could Not Be Reached. To get round this, in the browser, you must amend the TeraVM Controller IP with :8181. For example: http://TVM-C IP:8181.

• 12.1 Security Certificate Required

When upgrading from pre-12.1 to post-12.1 and trying to reach the Executive or Controller via the browser, the browser displays a connection not secure dialog. This dialog will differ from browser to browser. You must add an exception to accept a security certificate before you can log into the Executive or Controller. You will also need to do this the first time that you open Pool Manager from the UI.

• Upgrade to Off Controller Repository

13.1 release includes performance improvements to the Off Controller Client Repository. If you have a have an installed Off Controller Client Repository, then use the procedure in Section 3.2 to perform the upgrade. TeraVM supplies a separate Client Repository which can be of unlimited size, external to the Controller (Off Controller). It comes as a separate virtual machine, and must be downloaded separately. The repository is sized at 32 GB by default. You can increase this by adding disks in vSphere (you cannot remove or resize existing disks).

• Cybersecurity Updates

This release includes the addition of ETPro files, these files are only supported from TeraVM Controller version 13.3-4267 and onward.

When you perform this upgrade, all Cybersecurity Updates from the last Cybersecurity upgrade will be removed. Please download the latest Cybersecurity updates and reboot your controller before reinstalling. Contact support for details. This only applies if you have purchased the additional Cybersecurity Database license from VIAVI.

An overview of the TeraVM install and upgrade process is shown below. For details on installing or upgrading to this release, please see the relevant hypervisor/cloud guide.



Figure 4-1. Installing or Upgrading to this Release

4.1 Upgrade from 13.1 Pre-Upgrade Step

This procedure must be done for both the TeraVM Executive and Controller before upgrading from TeraVM 13.1 to 13.2 or, 13.3, 13.4, 13.4.1, 13.4.2, 14.0, 14.1.

Prerequisite

- Failure to follow this procedure during an upgrade will lead to a timeout or an error message. This will not negatively impact the upgrade, but you must follow this procedure and apply the pre-upgrade steps.
- 1. In your browser, enter the IP address of the Executive/Controller.
- 2. Enter your User Name and Password and click Sign In.
- 3. Select **Utilities**.
- 4. From the Welcome to TeraVM page, select Upgrade System and login using:

Username: diverAdmin

Password: diversifEye

Figure 4-2. Welcome to TeraVM



Welcome to TeraVM



- 5. Select the **Choose File** button.
- 6. Select the appropriate pre-upgrade file and click **Open**.

TeraVM_Controller-13.2_preupgrade-98134-upload.tgz TeraVM_Executive_1.6_preupgrade-98132-upload.tgz

- 7. Click Upload. The file uploads in several seconds.
- 8. Click Upgrade.
- 9. After the pre-upgrades have been completed continue with the Executive and Controller upgrades as normal.

4.2 Upgrading Off Controller Repository

Use this procedure to upgrade the Off Controller Client Repository. The following conditions apply to the upgrade process.

- When upgrading TeraVM to 13.4.2 release, the pcaps stored on the Off Controller Client Repository are deleted. For upgrades to post 13.4.2 release, the pcaps are not deleted.
- The Client Repository Off Controller versions older than 1.5-525 will not work with the TeraVM version 13.4.2 or higher. When upgrading TeraVM to 13.4.2 you must also upgrade the Client Repository Off Controller to the 1.5-525 version.

Note

If you are upgrading an Off Controller Repository deployed from 1.3-329 ova and you encounter the error message: <unable to validate signature>, please contact support.

Prerequisites

- This procedure assumes you have a correctly installed Off Controller Client Repository.
- Check the Off Controller is supported in the following Supported Off Controller Repository table.

1.2-161	1.3-329	1.4-417
1.5-525	1.6-550	1.7-650

- 1. Download the Client Repository Off Controller Upgrade file from the release folder > Upgrade folder: ClientRepositoryOffController_Upgrade-_upload.tgz.
- 2. In the vSphere Client ensure that the Client Repository Off Controller is powered on.
- 3. In the vSphere Client select the Client repository Off Controller and note its IP Address from the Summary tab in the **General** pane.
- 4. Enter the IP Address in your browser and make a note of the Software Version displayed under the System Information.

Figure 4-3. Application Library



- 5. Select Upgrade System. The Upgrade System page opens.
- 6. Click **Browse** and select the Off Controller Client Repository Upgrade file that you previously downloaded.

- 7. Click **Upload**. When completed, a file uploaded message is displayed.
- 8. Click Upgrade.
 - An error is displayed in your browser. Please note that this is expected behaviour.
 - If the error states <unable to validate signature> please contact support.
 - Check the IP Address of the Client Repository Off Controller, it may have changed.
- 9. Enter the IP Address of the Client Repository in the browser and check the **Software Version** under the System Information panel. *The Software Version has incremented.*

4.3 Check Your Current Versions against Upgrade Installer

The Upgrade installer can be used in conjunction with the versions listed below. If the release you are currently using is not listed, please contact VIAVI support.

Attention: If you are upgrading from a release prior to 11.0, please contact VIAVI support as you may need to run an additional step.

Release versions use the following convention: `"Major.Minor-BuildNumber" or "X.Y-Build"

Where X represents the major version, Y the minor version.

11.0-257	11.0.1-259	11.1-300
11.2-334	11.2.1-339	11.3-379
11.3.1-401	11.3.2-420	11.4-613
12.0-1454	12.0.1-1692	12.0.2-1961
12.0.2-1996	12.0.3-2053	12.0.2-2030
12.1-3090	12.1-3110	12.1.1-3121
12.1.2-3152	13.0-3297	13.1-3699
13.1-3703	13.2-3946	13.2.1-4090
13.3-4261	13.3-4267	13.3.1-4289
13.3.2-4488	13.3.3-4502	13.4-4623
13.4.1-4645	13.4.2-4707	13.4.3-4718
14.0-5096	14.0-5106	14.0-5113
14.0.1-5118	14.0.2-5163	14.1-5432
14.1.1-5609	14.1.2-5527	14.1.3-5238
14.2-5819	14.2.1-5826	14.2.2-5853

Table 4-1. Controller Releases Supported by Installer

1.0	1.1	1.2
1.3	1.4	1.5
1.6	1.7	1.7.2
1.8	1.9	1.9.1
1.9.2	1.9.3	1.10
1.11	1.14	

4.3.1 Download and Install Upgrade

Use this procedure to install an upgrade using the HTML5 interface.

Installing an Upgrade

- 1. Download the upgrade from the location provided by VIAVI support. Close any open TeraVM user interfaces and stop any tests.
- 2. In your browser, enter the IP address of the Executive/Controller.
- 3. Enter your User Name and Password and click **Sign In**.
- 4. Select Utilities.
- 5. From the Welcome to TeraVM page, select Upgrade System and login using:

User Name: diverAdmin Password: diversifEye

Figure 4-4. Welcome to TeraVM



Quick Links Menu
Download TeraVM 14.2 Client
Unified UI
Upgrade System
Backup Test Configuration
Restore Test Configuration
Global Settings
Card Resource Usage
Download System Logs
TeraVM Chassis Information

- 6. Select the Choose File button.
- 7. Select the appropriate patch file and click **Open**.
- 8. Click **Upload** and wait until the file has uploaded.

Figure 4-5. Upload File

Current Upgrade	File:	
Upload Date:	21-12-2017 11:51:21	
File Size:	2.78 GB	
Change Upgrade	File:	
New Upgrade File:	Browse	Upload
	Note: The upgrade process may require a reboot of the TeraVM S Please ensure all users are logged off before saving an updated conf	ystem. iguration.
	Upgrade	

9. Click **Upgrade** and wait for the patch to complete upgrading.

Note: The controller reboots twice during the upgrade procedure. The upgrade progress can be followed using the Console on the VM or connecting to the Console on a physical system (d500/d1000). If the system updates successfully, a message similar to the following appears:

MD5 checksum
i upload.tgz
Untarring payload
Validating signaturesvalidated
Unloading payloadfinished
Running contained payload
 The system will now be rebooted to perform the upgrade.
Progress messages can be observed on the system console.
The system will automatically reboot once the upgrade completes.
DO NOT MANUALLY REBOOT THE SYSTEM WHILE UPGRADING.
 Success!
Upload files successfully applied
finished

10. Otherwise, a message will appear with instructions about how to ftp the upgrade file to the system. Follow these instructions to complete the upgrade step.

Note: Older hardware may require ftp. Contact VIAVI support if you run into issues.

- 11. If you are a TeraVM Cybersecurity user, and have not already updated to the latest Cybersecurity Database, note that this is an extra step in the upgrade process. For further details, contact VIAVI Support.
- 12. Next, continue to the relevant platform set up guide, for example, VMWare EXSi, to deploy the TeraVM Test Modules and Executive.

4.4 Streamlined Upgrade Process

Use this procedure to upgrade from TeraVM 14.0 and upward. You can also use the script for upgrades from TeraVM 11.4, but you must manually deploy a TeraVM Executive first and power it on before running the script. This script considers for upgrade all the TeraVM Virtual Machines that are powered on and on the same Comms network. The Upgrade TeraVM Testbed script is available from TeraVM 14.0.

Note

The Streamlined Upgrade Process is only applicable on a TVM-630 or a testbed on 1 server with only 1 TVM-E.

11.4-613	11.4-618	13.0.3927	13.3-4261
13.3-4267	13.4-4623	13.4.2-4707	14.0-5096
14.0-5106	14.0-5113	14.0.1-5118	14.0.2-5163
14.1-5432	14.1.1-5609	14.1.2-5527	14.1.3-5238
14.2-5819	14.2.2-5853		

- 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.*
- 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/Upgrad
```

e/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-E[10.110.2.22]: 10.110.2.22

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

```
TVM-E User[teravm]:
```

```
TVM-E 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-E 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	То	Upgrade
TVM-E-001	1.7.2-1672	1.9-1893	Yes
TVM-C-001	13.4-4623	14.0-4998	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 fal	se)[yes] :y	

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

Final Upgra	ade Statı	15:
Name	State	Sec Phase Log
TVM-E-001	OK	949
TVM-C-001	OK	2438
TVM-2-003	OK	701
TVM-2-004	OK	210
upg>All VMs	s upgrade	ed OK.
upg>Discon	necting d	from: "10.110.1.11"
Type ENTER	to dismi	iss:

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	R640	Intel X550 Dual Port 10G Base-T	
	NIC (40Gig)		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	
			Broadcom (1G)	
		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	Executive Version	Virtual NIC
ESXi‡	ESXi 5.5_U1 and U3	3.0.69	See ‡	VMXNET3	1.14	VMware VMXNET3 virtual
	ESXI 0.5_U2T					IIIIeIIace

† 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 or 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 Controller*	1 vCPU	4 GB
TeraVM Executive	2 vCPU	4 GB
vRAN	5 vCPU	16 GB

* If you are using EPC adaptive testing, you must ensure that Production or a Field Application Engineer change the TeraVM Controller to use 2 vCPU and 6GB of Memory.

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
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	46 or later
Internet Explorer	11
Google Chrome	56

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

The following defects were addressed in this release. For further details, please contact VIAVI support:

Table 6-1. Bugs Fixed in this Release

Bug Number	Description
25358	14.2.1 Upgrade stuck at Installing CSDB

6.2 Known Issues

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

6.2.1 EPC Adaptive Test TVM-RanToCore Deployment Issues

The following issues for TVM-RanToCore Deployment involve two separate start index values from the vmutil.cfg file. That is, the start index for the TVM-RanToCore and the start index for the TeraVM Executive, these values should not be altered.

6.2.1.1 TVM-RanToCore vmrStartIndex in vmutil.cfg File

This is the start index for the TVM-RanToCore VMs. An issue with TM-RanToCore deployment exists if the **vmrStartIndex** setting is changed from 0 in the vmutil.cfg file for orchestration. The setting is located under the *Optional* settings in the *Settings for VM type TVM-RanToCore*, as shown in the following code block. To avoid any issue this value must not be altered.

```
# Optional.
# -----
...
vmrVmPrefix=
vmrmProp[0]=
vmrVerbosity=1
vmrStartIndex=0
...
```

6.2.1.2 TVM-RanToCore vmeStartIndex in vmutil.cfg File

This is the start index for the TeraVM Executive. An issue with TVM-RanToCore deployment exists if the vmeStartIndex setting is changed from 0 in the vmutil.cfg file for orchestration. The setting is located under the *Optional* settings in the *Settings for VM type TVM-E only*, as shown in the following code block. To avoid any issue this value must not be altered.

```
# Optional.
# -----
...
vmeVmPrefix=
vmeVmProp[0]=
vmeVerbosity=1
vmeStartIndex=0
...
```

6.2.2 Difficulty Connecting to UI When Using Pcap Repo

If you encounter difficulties connecting to the UI and you are using Pcap Repos, ensure the connection details are still valid for the Repo, if not unregister and re-register the Repo.

File Repositories Registered:			
Name	URL	User	Action
TeraVM Default Repository	https://10.120.5.22:9200	anonymous	
My Client Repository	https://10.120.5.22:9201	diverUser	Uninstall
Register New File Repository:			
URL	https://10.202.4.196 92	03	
Username:	editor		
Password:	•••••		
Re-type Password:			
	Register New Repository		

6.2.3 TeraVM Executive Connectivity Lost

An issue may occur when connectivity to a TeraVM Executive has been lost and the TeraVM Executive needs reconnecting with the TeraVM Controller, but you are not prompted to do so on TeraVM Controller UUI login. Where this occurs use the following procedure.

Setting the Executive IP Address

A new **Controller Settings** link can be accessed under the logo on the TeraVM Controller. This setting improves the accessibility for setting a new Executive IP Address. This feature can be used if you want to quickly set a new Executive IP address.

To change the Executive IP Address:

1. Click the **TeraVM Controller** link next to the logo, in your TeraVM Controller UUI, to open the **Controller Settings** dialog box.



2. Enter the Executive IP Address in the IP Entry Field and click Set IP.

TeraVM - A Fu TeraVM is used to tes TeraVM's stateful per experience metrics a appliances and servio	Ily Virtualized IP st both physical and virth application, per flow er re ideal for validating an res.	Test & Measureme ual appliances. nulation and associated qual Id assuring the reliability of n	nt Solution ity of ext generation
	TeraVM (Controller	
	10.10.10.10	×	
	Cancel	Set IP	

3. In ESXi vSphere client, restart the TeraVM Executive and TeraVM Controller.

4. The new Executive IP is set.

6.2.4 Transitioning from Primary to Failover Licence Server

Transitioning from Primary to Failover Licence Server can take approximately 2 minutes. If you have a test running while transitioning then you will see no interference with the test, but if you start a test before the transition is complete the test will fail to start. But once the transition is complete the test will start as normal.

6.2.5 Missing Buttons from Java Client GUI

If you are using more than 100% text size, please be aware that some items on the UI may not be visible. Reduce to 100% and if the issue persists then please contact support.

Appendix A: TeraVM Documentation Set

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

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

The complete TeraVM documentation set is listed below.

Table 6-2. TeraVM User Guides

User Guides	Description
Release Notes	New features / Changes in the latest release. (Includes supported versions).
TeraVM HTML5 User	TeraVM overview includes setting up and running tests in the HTML5 UI, Centralized Test
Guide	Library.
TeraVM Java Client User	How to create and run tests in the Java Client: Details of applications and hosts supported.
Guide	There are also separate application notes for Citrix ICA, SIP trunking and EoGRE.
TeraVM CLI User Guide	Using the Automation Interface (CLI, Perl commands and RFC scripts) for testing. Also man
	pages are available for commands and scripts in the Documentation sub-directory cli.
TeraVM Appliance Set Up	TeraVM Hardware Appliance Set Up (Appliance Customers only).
Guide	
TeraVM vRAN User Guide	Combined NG4T / VIAVI solution for RAN, Core and Peripheral
	IP Emulation for 4G.
TeraVM Licensing Guide	How to set up and configure licensing features, e.g. set up license
	servers and license reporting.
TeraVM Application Library	Traffic generation test solution for creating application flows.
Test	Includes repository setup information.
Configuration Guide,	
Application Library	
Repository Users Guide	

Table 6-3. Hypervisor/Cloud Specific TeraVM Setup Guides

Hypervisor/Cloud Environment	Document Name
ESXi	TeraVM on VMWare Set Up Guide
KVM	TeraVM on KVM Set Up Guide
OpenStack on KVM	TeraVM on OpenStack Set Up Guide
Citrix XenServer	TeraVM on Citrix Xen Set Up Guide
Hyper-V	TeraVM on Hyper-V Set Up Guide
Amazon AWS	TeraVM on Amazon AWS Set Up Guide
Microsoft Azure	TeraVM on Microsoft Azure Set Up Guide

Table 6-4. TeraVM Reference Guides

Reference Guides	Description
TeraVM Metrics Guide	Statistics/Metrics available with TeraVM
CLI Reference Guides	Man pages are available for commands and scripts in the
(under Documentation/	Documentation sub-directory.
cli).	



For further information please contact: VIAVI Solutions:

www.viavisolutions.com/wirelessvalidation