

TeraVM

COBHAM

The most important thing we build is trust

TeraVM Release Notes

TeraVM Release 12.1.2



Help and Support

TeraVM User Documentation, Online Training Guides and Videos are available on the documentation portal:

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

For support queries, please log a call on the Cobham Wireless Support Portal

<https://support.aeroflex.com/>

For help on using the support portal, download the [Cobham Wireless Customer Support Portal User Guide](#).

(For accounts, please contact your local Cobham Account Representative).

Note

You can also contact support using the mail alias for your region:

TeraVMSupport.CN@aeroflex.com (China)

TeraVMSupport.EMEA@aeroflex.com (EMEA)

TeraVMSupport.USA@aeroflex.com (North America)

TeraVMSupport.JP@aeroflex.com (Japan)

TeraVMSupport.KO@aeroflex.com (Korea)

TeraVMSupport.SG@aeroflex.com (South East Asia)

TeraVMSupport.IND@aeroflex.com (India)

Table of Contents

Chapter 1. What's New in 12.1.2	1
Chapter 2. Upgrading to this Release	3
2.1. Check Your Current Versions against Upgrade Installer	3
Chapter 3. Platforms	5
3.1. Hardware	5
3.2. Hypervisors	5
3.3. Operating Systems	6
3.4. Web Browsers	6
Chapter 4. Bugs Fixed and Known Issues	8
4.1. Bugs Fixed	8
4.2. Known Issues	8
Appendix A. TeraVM Documentation Set	10

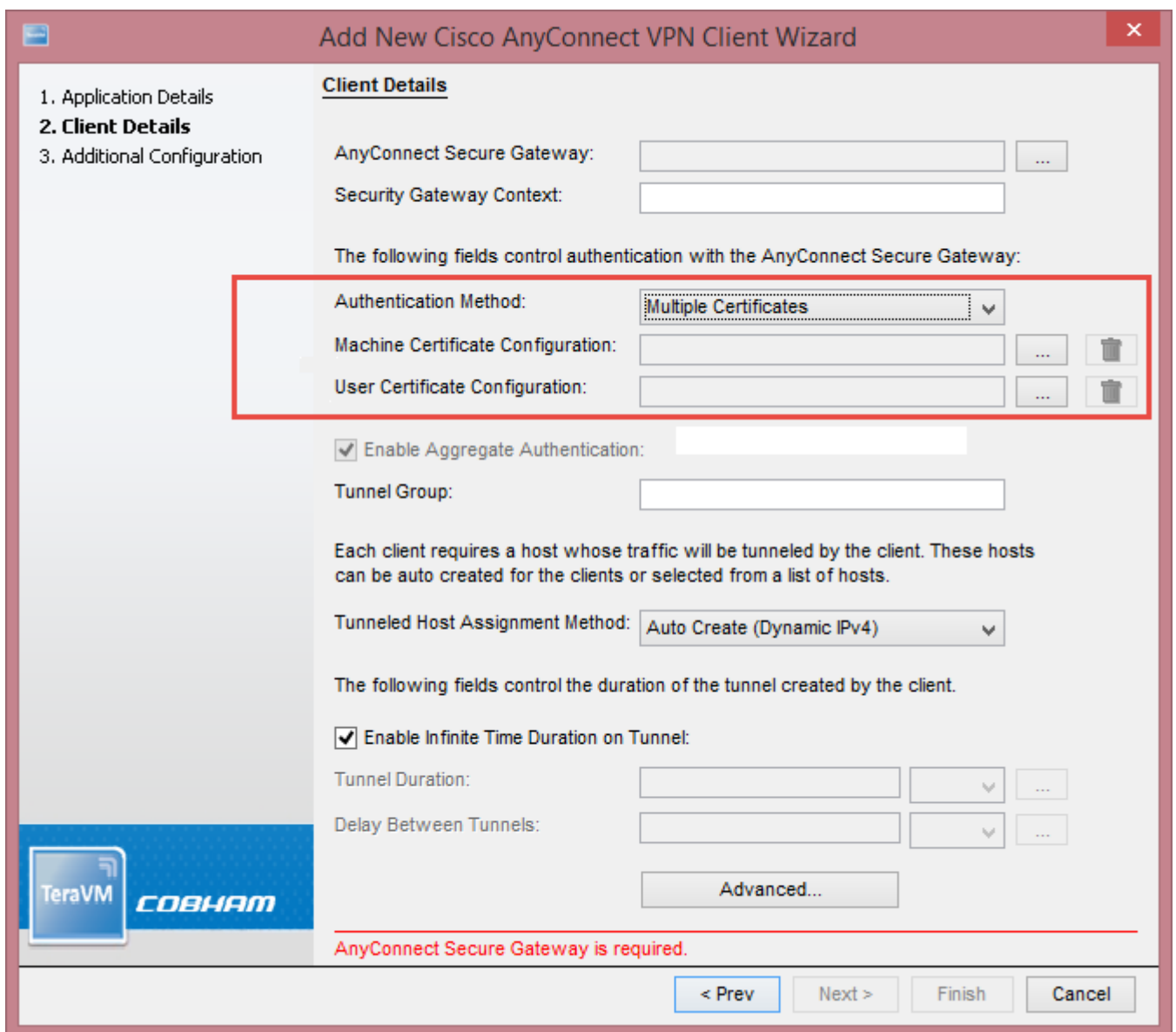
Chapter 1. What's New in 12.1.2

Updates made in this release are detailed below.

Cisco AnyConnect VPN Client Multi-Certificate Authentication

Cisco AnyConnect VPN Clients support authentication using multiple client certificates for both SSL/DTLS and IKEv2 VPNs. Two certificates can now be specified, one to represent the machine/host and one to represent the user being authenticated.

Figure 1-1. Multiple Certificates



D500 Support for Poweredge R230

The Dell PowerEdge R220 has reached end-of-life with the PowerEdge R230 as its replacement. The bare metal platform for a d500 RDA now supports the PowerEdge R230.

CLI getStats Command

The new getStats command is synchronous in behaviour and on each invocation is capable of delivering multiple column values for multiple stat entities. The command operates at high speed with low impact to the TeraVM system. This enables automation scripts to retrieve statistics efficiently, while a test is running, where a synchronous "polling" style of retrieval is required.

Examples:

A single column value for a single stat entity:

```
$ cli getStats "/1/Ap/TfcTcp001/F:Out Bits/s"
327680.0000000000
```

Multiple columns, single entity, with column labels:

```
$ cli getStats ColLabels=true "/1/Ap/TfcTcp0005/F:In Bits/s,In Service"
In Bits/s,In Service
13448.0000000000,1
```

Multiple columns, one missing, multiple entities, row and column labels enabled:

```
$ cli getStats RowLabels=true ColumnLabels=true\
> "/1/Ap/TfcTcp0005/F:In Bits/s,200 Responses"\
> "/1/Ap/TfcTcp0006/F:In Bits/s,In Packets/s"
StatName,In Bits/s,In 200 Responses/s
/1/Ap/TfcTcp0005/F,13120.0000000000,nan
StatName,In Bits/s,In Packets/s
/1/Ap/TfcTcp0006/F,13120.0000000000,40.0000000000
```

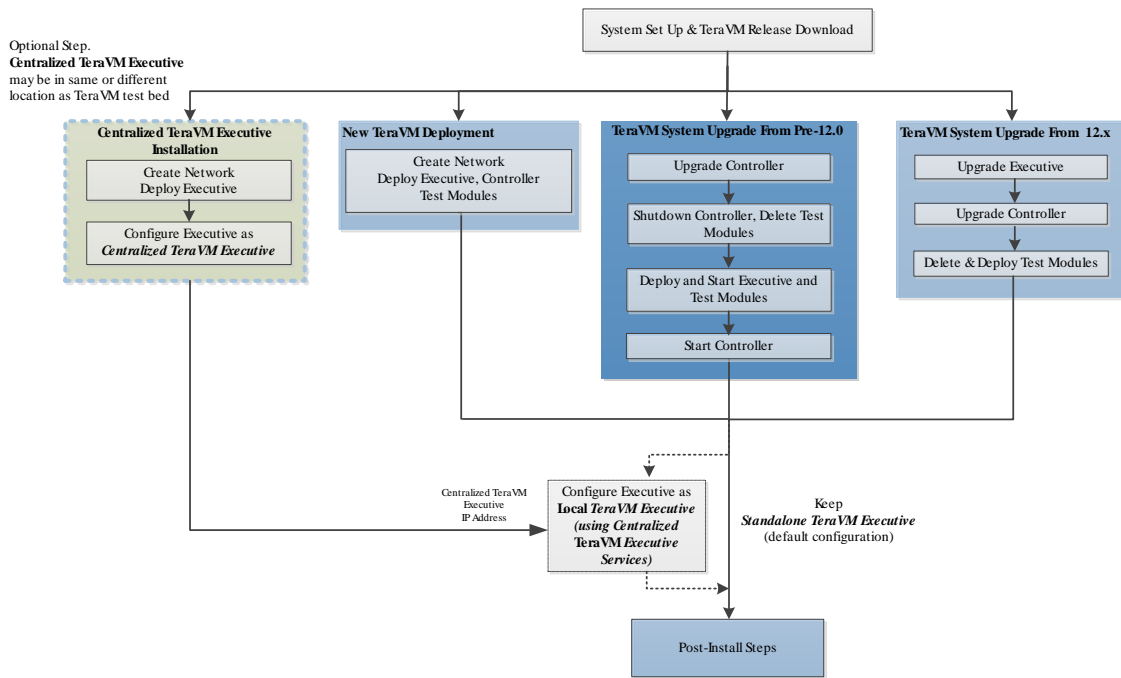
Chapter 2. Upgrading to this Release

Important

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.

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 2-1. Installing or Upgrading to Release 12.1.2



2.1. 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 Cobham support.

Attention

If you are upgrading from a release prior to 11.0, please contact Cobham 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.

Table 2-1. Controller Releases Supported by Installer

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

Table 2-2. Executive Releases Supported by Installer

1.0	1.1	1.2
1.3		

Chapter 3. Platforms

3.1. Hardware

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

Figure 3-1. Hardware Platforms

Cisco UCS		DELL	
Model	NIC	Model	NIC
C240	Cisco VIC 1285 PCIe Ethernet NIC (40Gig)	R630	Intel 82599EB 10-Gigabit SFP
	Cisco Systems Inc VIC 1225 PCIe Ethernet NIC (10Gig)		Intel 10-Gigabit X540-AT2
C220	Cisco Systems Inc VIC 1225 PCIe Ethernet NIC (10Gig)		Mellanox ConnectX4 (100Gig)
C200	Cisco Systems Inc VIC 1225 PCIe Ethernet NIC (10Gig)	R620	Intel 82599EB 10-Gigabit SFP
B200	Cisco Systems Inc VIC 1225 PCIe Ethernet NIC (10Gig)		Broadcom (1G)

3.2. Hypervisors

The 12.1.2 release has been tested with the following hypervisors and versions (AWS, XEN and Azure platforms are tested with major releases):

Table 3-1. Hypervisors

Hypervisor	Hypervisor Version	TVM Version	TVM Types*	vSwitch Type	Executive Version	Virtual NIC
ESXi***	5.5.0	3.0.12	See ***	VMXNET3	1.2	VMware VMXNET3 virtual interface

** For KVM on Red Hat, OVS 2.0.2 is supplied as part of TeraVM.

***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 5.5.x 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, but is not fully certified in performance tests.

Note

- vSphere/vCentre v6.0 supports Direct Path and vSwitch only. (SR-IOV is not supported).

3.3. Operating Systems

Figure 3-2 shows the operating systems that TeraVM Java Client has been tested with.

Figure 3-2. Operating Systems

Operating Systems	
Windows	8.10
MAC OS X	10.10.4
Ubuntu	14.04.1

3.4. Web Browsers

TeraVM is developed to work with modern web browsers.

Figure 3-3 shows the web browsers that TeraVM has been tested with. Cobham will make every reasonable effort to support older versions.

Figure 3-3. Web Browsers

Web Browsers	
Mozilla Firefox	39
Internet Explorer	11.0.9600.17842
Safari (in Mac OS)	5.1.8
Google Chrome	44.0.2403.157 m

Chapter 4. Bugs Fixed and Known Issues

4.1. Bugs Fixed

Table 4-1. Bugs Fixed in This Release

Bug Number	Description
23827	RTSP issuing TEARDOWN Loss whilst still receiving media

4.2. Known Issues

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

Table 4-2. Known Issues in this Release

Bug Number	Description
21453	IGMP JPS test stops on KVM
21519	Cannot run test on SR-IOV enabled NetXtreme II NICs when 1 TA is using more than 1 VF on the same PF
22724	Copy/Paste Function has been removed from the Java Client.
22759	On deploying a fresh RHEL 7.1 system the fourth TVM does not always start
22808	TestGroup is being stopped with Exception if another user attempts to run a test on the same ports.
22858	Juniper NC ESP VPN: srrd>Agent (mlips) session ended unexpectedly with Error When Running Test
22918	Scaled TeraFlow Servers Validation on same Scaled Host seems incorrect
23021	Controller hangs at "request interfaces from Pool Manager". CLI JVM dies and automation fails
23382	Anyconnect SSL with Failover enabled sends increasing CSTP Frames each failover
23426	java.lang.OutOfMemoryError: Java heap space (v12.0.2 Build 2027)
23605	<p>KVM: Java GUI crashes after a PDU capture</p> <p>Note</p> <p>This is due to an MTU mismatch between the Client PC and the Management port. Set these to the same value to prevent this networking issue from occurring.</p>
23625	Controller and Executive must be at the same software version otherwise cannot login to Executive

23739	Using Chrome to browse to PM UI sometimes causes the UI to freeze when PM has 1,000+ logical ports
23788	Problems checking out a test from the CTL
23765	CSDB upgrade should not be allowed on RDA platform
23771	Cannot run a test with the same VLAN on different Test Modules
23785	Cannot share a CSDB test

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 A-1. TeraVM User Guides

User Guides	Description
Release Notes	New features / Changes in the latest release. (Includes supported versions).
TeraVM User Guide	TeraVM overview including setting up and running tests in the HTML5 UI, Centralized Test Library.
TeraVM Java Client User Guide	How to create and run tests in the Java Client: Details of applications and hosts supported. 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 <i>cli</i> .
TeraVM Appliance Set Up Guide	TeraVM Hardware Appliance Set Up (Appliance Customers only).
TeraVM vRAN User Guide	Combined NG4T / Cobham 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 Test Configuration Guide, Application Library Repository Users Guide	Traffic generation test solution for creating application flows. Includes repository setup information.

Table A-2. Hypervisor/Cloud Specific TeraVM Set Up 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 A-3. TeraVM Reference Guides

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

Copyright

© Copyright 2016 Cobham Wireless Limited, a Cobham Test Solutions Company.

All rights reserved, subject to change without notice.

The material contained in this document is for general information purposes only and does not constitute technical or professional advice.

All third party trademarks are acknowledged in this document.

All copyrights in and to the software product are owned by Cobham Wireless or its licensors. The software is protected by copyright laws and international copyright treaties, as well as other intellectual property laws and treaties.

End User License Agreement

The usage of the TeraVM product and documentation is subject to the Aeroflex Ireland Ltd standard Software Licence Agreement, which is available at [TeraVM License Agreement](#).

Please read the terms of the Software Licence Agreement carefully before using the documentation.