



# **Velocity Core**

Version 24.4.0

*System Release Summary (Rev A)*

*December 2024*

## Velocity Core

### Version 24.4.0 – System Release Summary (Rev A)

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## Overview

This document contains information about the enhancements, fixes, and known issues in Spirent Velocity release 24.4.0.

This document is also available on the Spirent Customer Service Center website: <http://support.spirent.com>.

## Enhancements

Each major release of Velocity has one or more themes that drive feature selection. The primary focus of the GA Velocity 24.4.0 release is listed below.

Theme	Functionality / Capabilities
Functionality	<b>Customized Resources Columns</b> Ability to select from the list of templates and see the most relevant resource information based on customer defined set of resource properties.
	<b>Trigger Tasks on Connections Changes</b> A Triggered task event can be defined and called when a connection is created, changed, or deleted
	<b>L2 Switch Interface Enhancement</b> The L2 switch interface createVLAN function can now return information and pass this information as a parameter to VLAN entity calls (destroyVLAN, addToVLAN and removeFromVLAN)

### Important:

#### NetScout Driver Support

Velocity 24.4.0 does not support the NetScout driver even though the driver is still included. It is recommended to use the **Velocity L1 Switch Driver** instead of NetScout driver.

**Note:** Velocity 25.1 will remove the NetScout asset.

#### Pre-upgrade LDAP Backup and Post-upgrade LDAP Restore Process

LDAP data on Velocity Datastore 9.5.0 cannot be migrated to Velocity Datastore 24.4.0 during upgrade. If you use the LDAP server on VDS, prior to the upgrade you are required to back up your LDAP database and then follow the steps provided to restore the backup after upgrading to the latest release. Follow the steps in [Pre-upgrade Backup and Post-upgrade Restore](#).

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### **Additional Notes:**

If you use external console server to provide additional security for terminal sessions, follow the instructions provided in the *Velocity Core Deployment Guide* to download the Distributed Console Server package and configure the external console servers.

## Velocity Compatibility matrix

The following table identifies the software versions supported.

Item	Type	Versions
Velocity VM Deployment Environment	Hypervisor	ESXi version 8.0.2 KVM Version 1:4.2-3ubuntu6.30
	OpenStack Caracal	Version 2024.1
User Interface—Browser	Edge	Version 131 based on Chrome
	Google Chrome	Version 131 (64-bit)
Velocity Agent	Windows	(64bit OS only) Windows 11 Pro, Windows Server 2019
	Linux	(64-bit OS only) RHEL 8.8, Ubuntu 20.04 LTS
L1 Switch	MRV**	MCC and OCC supported using MRV releases: <ul style="list-style-type: none"> <li>EM316LNxNM v4.6 mcc 04</li> <li>EM316LNxNM v4.10 mcc 01</li> </ul>
	Calient	Version B6.0-7, Model:S324 Version 6.1-3a, Model: S320(for E640 solution) - validated in 9.0 release
	NetScout	Test Stream Management Software, version 04.08.200.025 Model: 3901R
	Polatis	Model: N-VST-48x48-HU1-DMHNS-800 Name: POLATIS Inc . Version: 6.8.1.4
	Lepton	Model: ColdFusion-1 Software Version: 1.5.44
L2 Switch	Cisco	Model: 3850, Version: 16.6.7
Spirent TestCenter Avalanche	Application	5.53 5.50
OpenStack	Cloud Manager	Caracal
VMware VSphere		Version 7.0
Amazon Web Services (AWS) CLI		Version 2.11.12
Kubernetes		Version 1.28.1
Database	POSTGRESQL	13.18
	OpenSearch	2.2.0
	Minio	2021-04-22T15:44:28Z
	Kafka	3.2.3
	Zookeeper	3.5.10

\*\* Tested on:

U-Boot 1.0.3.4 Linux kernel v2.6.32.1-mrv EM316LNxNM (firmware 5c.1c)

U-Boot 1.0.3.4 Linux kernel v2.6.32.1a-mrv EM316LNxNM (firmware 5e.23)

## Known Issues in Velocity 24.4.0

This section lists known, unresolved issues in this release.

Issue Key	Summary
RM-36096	Search filter on <b>Velocity &gt; Resources</b> page displays deleted ports and description.
RM-36003	It is recommended to create an inherited template for specific required resources and update only this template to limit the number of affected resources. <b>Note:</b> Changes in templates are propagated to the inherited templates and resources, which affect many resources. This requires a long time to resolve any issues. Hence, it is recommended that you do not update high-level templates.
RM-35782	The triggered event <b>OnResourceModified</b> does not include all the parameters when a connection is removed using the <b>Disconnect</b> button ( <b>Inventory &gt; Resources</b> page). <b>Example:</b> If the triggered event <b>OnResourceModified</b> is set for two PCs connected with one port each, and the connection is removed using the <b>Disconnect</b> button, Velocity triggers <b>OnResourceModified</b> event with Id of just one PC and it's port (and not the other).
RM-35965	Ensure that the grouped resources in a topology are expanded and not collapsed to ensure that warning messages are displayed. <b>Note:</b> Warning messages are not displayed in the Velocity UI when grouped resources are collapsed in a topology.
RM-34499	It is recommended not to use double quotations encasing the login banner content. <b>Note:</b> Using double quotes to encase the banner as Velocity discards this configuration.
RM-32529	See <a href="#">Manage Resource Utilization Report generation start date</a> section below for details
RM-34534	LDAP on Velocity 9.5.0 cannot be migrated to LDAP on Velocity 24.4.0 during upgrade If you use the LDAP server on VDS, prior to the upgrade you are required to back up your LDAP database and follow the steps provided to restore the backup after upgrading. Follow these steps. <b>Pre-upgrade LDAP Backup</b> SSH into your VDS and backup LDAP as follows. <pre>/local/tools/run-backup.pl --services openldap --dir /data/ldap-bkup-preupgrade .... root@vds-user-01:~# ls -al /data/ldap-bkup-preupgrade/ total 12 drwxr-xr-x 2 root root 46 Jun 1 21:24 . drwxr-xr-x 24 root root 4096 Jun 1 21:24 . -rw-r--r-- 1 root root 83 Jun 1 21:24 info.txt -rw-r--r-- 1 root root 422 Jun 1 21:24 openldap.ldif.gz</pre>

<p><b>Post-upgrade LDAP Restore Process</b></p> <p>SSH into your VDS and Restore the backed-up LDAP as follows.</p> <pre>root@vds-user-01:~# /local/tools/run-restore.pl --services openldap --dir /data/ldap-bkup-preupgrade Source Directory: /data/ldap-bkup-preupgrade Services to restore: openldap ----- Display Only [openldap]: Starting at: Mon Jun 1 21:25:15 2024 ----- Stopping openldap service... Skipped. Purging openldap database... Skipped. Restoring openldap content... Skipped. Starting openldap service... Skipped. ----- Display Only [openldap]: Finished at: Mon Jun 1 21:25:15 2024 ----- Before proceeding with restore, you should stop any remote services that Are configured to access VDS for any services that are being restored. Are you sure you want to run this restore? (Y/N) y ----- Restore [openldap]: Starting at: Mon Jun 1 21:25:17 2024 ----- Stopping openldap service... Current services processes: 2108 restarter.pl 2108 restarter.pl 2121 slapd Requesting clean shutdown of services. Stopping services. If any services listed here, they did not stop properly: Done. Purging openldap database... Done. Restoring openldap content... added: "dc=local" (00000001) added: "ou=users,dc=local" (00000002) added: "cn=administrator,ou=users,dc=local" (00000003) Done. Starting openldap service... 2024-03-01T21:25:19,829Z Process template from (/local/template-configs/openldap/slapd.conf.tt) to (/data/openldap/slapd.conf):</pre>
--



```
2024-03-01T21:25:19,830Z Encoding parameters for safe insertion...
2024-03-01T21:25:19,854Z Done.
2024-03-01T21:25:19,905Z Done.
2024-03-01T21:25:25,592Z Loading configuration.
2024-03-01T21:25:25,675Z Attempting to connect to local ldap
instance.
2024-03-01T21:25:25,675Z Verifying OU structure...
2024-03-01T21:25:25,675Z Updating name attribute on existing user
object...
2024-03-01T21:25:25,675Z Updated name for userid administrator.
2024-03-01T21:25:25,675Z Updating password attribute on existing
user
object...
2024-03-01T21:25:25,675Z Updated password for userid administrator.
2024-03-01T21:25:25,675Z Done syncing administrator account.
Done.
-----
Restore [openldap]:
Finished at: Mon Jun 1 21:25:25 2024
-----
Restore process completed from: /data/ldap-bkup-preupgrade
Restore process completed at: MonJun 1 21:25:25 2024
```

## Manage Resource Utilization Report generation start date

Resource Utilization Report with a large volume of historical data may take an exceptionally long time to generate or time out.

Velocity allows you (Admin User) to select the date from which to start generation of Resource Report Utilization to avoid time out.

Select as follows.

On **Velocity > Applications Settings > Reports** tab select **Resource Utilization Report start date** (from the calendar setting).

**Note:** The date change takes effect on reboot or automatic utilization data refresh (every 3 hours).

Velocity considers the information from the Utilization reports to avoid page timeout and generate the required report.

**Note:** The reports are generated on the **Utilization** tab of Templates, Resources, Ports and **Reports > Resource Utilization** page.

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## Fixes in Velocity 24.4.0

This section lists the fixes in this release.

Issue Key	Summary
RM-35854 SR-01653750	Intermittent issues with Velocity passwords.
RM-35795 SR-01652136	Velocity REST API Get command for failed case returns null as "Failure Reason".
RM-35718 SR-01649915	Issues with Active Directory login after Velocity upgrade from 9.5.0 to 24.3.0
RM-35689 SR-01649175	Issues with saving an edited reservation topology.
RM-35532 SR-01643971	Issues with Velocity Agent checking out a license.
RM-35505 SR-01644491	Velocity API documentation error for GET /devices/ports.
RM-35436 SR-01641748	Issues with MRV driver exception error.
RM-35425 SR-01645288	Issues with Velocity API reservation resources filter.
RM-34850 SR-01628648	Issues with Velocity API PUT /physical_connections Access Levels.
RM-34728 SR-01627833	issue when reserving a topology with a single resource that uses a custom Python driver.

## Planning for Upcoming Upgrades

### End of .ISO format support to Deploy Velocity on OpenStack and KVM environments

Velocity 24.4.0 is the last release to support **.iso** format image file for deploying Velocity on OpenStack and KVM environments.

Starting with Velocity 25.1.0 release, **.iso** image file will no longer be supported and the **qcow2** image file will be used to deploy Velocity on both OpenStack and KVM environments.

### Legacy vSphere and OpenStack integration

Velocity 24.4.0 will start deprecating its legacy integration with vSphere and OpenStack in phases over time. It is recommended to use the Velocity Core provided orchestrated interface, which allows flexible orchestration of containers and VMs on different hypervisors and clouds.

### NetScout Driver Support

Velocity 24.4.0 does not support NetScout driver and is the last release to include NetScout driver for ease of transition to using the recommended driver. It is recommended to use the **Velocity L1 Switch driver** instead of NetScout driver.

**Note:** Velocity 25.1.0 will remove the NetScout asset. Ensure that you change all uses of NetScout driver to **Velocity L1 Switch driver**.

## Installation Instructions and Documentation

To access the latest Velocity Portfolio documentation, follow these steps:

1. Log into the Spirent Customer Service Center website (<http://support.spirent.com>) using the email address and password assigned to you by Spirent.
2. Select your product from the **Product** drop-down menu. This displays the product page.
3. Click on the **Documentation** link in the Related Content section. This displays the documentation hub page for your selected product.
4. Click on the document links to access the desired PDFs.
5. Click the link below to access the Velocity Documentation Hub page and scroll down to locate the desired document.

Velocity Core Deployment Guide	<a href="https://support.spirent.com/csc30/s/article/Velocity-Doc-Hub">https://support.spirent.com/csc30/s/article/Velocity-Doc-Hub</a>
Velocity Core System Release Summary	
Velocity Core User Guides	
Velocity Core API Reference (includes the latest APIs and a list of deprecated APIs). Velocity Core API Version Difference Comparison documents (including the APIs added and modified in each release)	
Velocity Core Resource Driver Reference	
Velocity Core Abstract Resource Conditions Language Reference Guide	
Velocity Portfolio Script examples bundle Velocity Virtual Testbed Orchestration Example Instructions and Hello World! Test Script	
Velocity Portfolio License Server Installation Guide	
Velocity Core Agent User Guide	
Velocity Core Datastore Deployment Guide	

**Note:** The **Velocity Core > Related Resources** section on the Spirent Customer Service Center downloads page (<https://support.spirent.com/csc30/s/>) includes Velocity Drivers provided for those who would like to update their drivers to the latest versions supplied by Spirent.

## How to Contact Us

To obtain technical support for any Spirent Communications product, please contact our Support Services department using any of the following methods:

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Information about Spirent Communications and its products and services can be found on the main company website at <http://www.spirent.com>.

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