Ospirent™

Velocity Core

Version 24.3.0

System Release Summary (Rev A)
September 2024

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Overview

This document contains information about the enhancements, fixes, and known issues in Spirent Velocity release 24.3.0.

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 24.3.0 release is listed below.

Theme	Functionality / Capabilities
Functionality	Ability to Snapshot and Restore Past Reservation (licensed feature)
	Ability to Save a Copy of Reserved Topology
	Visibility of Reservation Owner for Exclusively Reserved Resources
	Ability to Resize Connection Window panel
	Ability to Customize Default Reservation Duration

Important:

NetScout Driver Support

Velocity 24.3.0 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 24.4 will remove the NetScout asset.

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

LDAP data on Velocity Datastore 9.5.0 or 9.4.0 cannot be migrated to Velocity Datastore 24.3.0 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.

Additional Notes:

- When Automatic PostgreSQL Maintenance is running, Velocity may become unresponsive.

  Recommendations: Ensure that you set Automatic PostgreSQL Maintenance process to run when Velocity is not actively used. For example, set the automatic schedule to execute first Saturday or Sunday of each month or whenever the system is not in use.

- 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 1:4.2-3ubuntu6.29
	Red Hat Caracal	Version 2024.1
User Interface—Browser	Edge	Version 128 based on Chrome
	Google Chrome	Version 128 (64-bit)
Velocity Agent	Windows	(64bit OS only) Windows 10 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: • EM316LNXNM v4.6 mcc 04 • EM316LNXNM v4.10 mcc 01
	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	5.49 5.47
OpenStack	Cloud Manager	Caracal
VMware VSphere		Version 7.0
Amazon Web Services (AWS) CLI		Version 2.9.19
Kubernetes		Version 1.30.3
Database	POSTGRESQL	13.2
	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 24.3.0

This section lists known, unresolved issues in this release.

Issue Key	Summary
RM-35508	Recently discovered CVEs were assessed to be low risk and will be addressed in Velocity release 24.4.0. CVE-2024-29506 CVE-2024-29507 CVE-2024-29508 CVE-2024-29509
RM-35466	Recently discovered CVEs were assessed to be low risk and will be addressed in Velocity release 24.4.0. CVE CVE-2024-40725 CVE CVE-2024-40898
RM-35228	Future Resource Utilization may be calculated incorrectly if Velocity has future recurrent instances of reservations.
RM-35071	Network interface on Velocity, VDS, VLS do not start on initial boot up. You are required to reboot these instances after the initial boot up for the network interfaces to start.
RM-34855	It is recommended you use Velocity Hostname to access artifact links. If not (e.g., using a proxy) you may not be able to open the artifact link if you do not have direct access to Velocity Host.

RM-34534	LDAP on Velocity 9.5.0 or 9.4.0 cannot be migrated to LDAP on Velocity 24.3.0 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.
	Pre-upgrade LDAP Backup
	SSH into your VDS and backup LDAP as follows.
	
	`/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`
	Post-upgrade LDAP Restore Process
	SSH into your VDS and Restore the backed-up LDAP as follows.
	
	`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):
```

```
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
```

Fixes in Velocity 24.3.0

This section lists the fixes in this release.

Issue Key	Summary
RM-35186 SR-01631669	OpenSearch shows errors and does not display basic data.
RM-35165 SR-01635191	Issues with reservation in queuing, but resource is free.
RM-35120 SR-01635962	Updating an L1 link in an existing reservation display error.
RM-35111 SR-01637283	Reservations is queued even though free Resources and Ports are available.
RM-35050 SR-01635959	Non-Admin users are unable to see the Topology tab and are redirected to the Information tab on the Reservations page.
RM-35016 SR-01635306	Issues with Triggered Automation Tasks (*on Resource Deleted*) when deleting a nested resource.
RM-34922 SR-01633075	Issues with External/Embedded real-time Agent logs not being displayed even when the agent is available in Velocity GUI.
RM-34907 SR-01632006	During reservation, command failed to execute driver operation and displayed DriverMigrationError.
RM-34843 SR-01622537	Issues with nested orchestrated resources being deleted before the driver finishes execution.
RM-34831 SR-01628649	Updated API documentation updated to include "cable" field (POST /physical_connections_csv)
RM-34830 SR-01622627	Cannot allocate requested reservation resources.
RM-34827 SR-01630053	Unable to see more than 50 Filestore while selecting images on Reservation page for Topology Devices
RM-34794 SR-01629649	Ports of resource are reserved as part of reservation of a different resource, blocking queue from resolving it.
RM-34788 SR-01628139	Windows Remote Desktop Background turning black while using Velocity RDP Console.
RM-34775 SR-01628796	Queued reservation cancelled although the resource was available.

Issue Key	Summary
RM-34774 SR-01628794	Resource category utilization shows 100% utilization while individual resources utilization show different values.
RM-34763 SR-01628257	SSH Sessions in Velocity 9.5. Saved password displays with more characters than entered.
RM-34761 SR-01628792	Issues with abstract resource being resolved when placed in queue.
RM-34741 SR-01628256	Issues with setting up a password/username for SSH Sessions in Templates and Resources, the First character is discarded.
RM-34698 SR-01627045	API documentation GET /group/{groupId}/users missing pageable tag.
RM-34641 SR-01625704	Issues with Guacamole SSH session negotiation settings failing in Xubuntu 22.04.
RM-34631 SR-01625276	Issues with Topology Editor displaying the Reserve and Save buttons simultaneously.
RM-34603 SR-01623541	API documentation missing POST /inventory folderId url parameter.
RM-34446 SR-01620564	Issues with Cisco driver shipped with Velocity.
RM-33651 SR-01555064	Issues with deferred resources. An error displays: Failed to Activate Reservation Resources. com.spirent.rim. common.exceptions. ValidationException
RM-33246 SR-01595418	Issues with creating a VM using an existing Cloud.
RM-33030 SR-01593660	Issues with Virtual / Cloud items not being shown correctly.
RM-28302 SR-01543841	Issues with temporary disconnection of links in an edited reservation.
RM-25958 SR-01518938	Issues with the Selenium Snapshot images not being included in Test Execution Reports.
RM-24686 SR-01502679	Issues with not being able to edit Queued and scheduled reservations.

Planning for Upcoming Upgrades

End of Support for License Server version older than 11.19

Velocity 24.3.0 is the last release that will support License Server version < FlexNet v11.19. Ensure that you upgrade to at least FlexNet v11.19.3 before Velocity release 24.4.0.

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 24.3.0 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 24.4.0 will remove the NetScout asset. Ensure that you change all uses of NetScout driver to **Velocity L1 Swith driver**.

Installation Instructions and Documentation

The Spirent *Velocity Core Deployment Guide* provides software installation instructions. The document link is available on support.spirent.com in the Downloads area under Related Resources for Velocity Core. It can also be downloaded from the Spirent Knowledge Base (https://support.spirent.com/SpirentCSC/).

User documentation is available in online Help formats for Velocity Core GA release. Help files, included within the Velocity Core application; provide reference information and context-sensitive user support. Launch a Help file by clicking the Help button in the menu bar or on a dialog box. Documents delivered in PDF format support product installation and use.

Velocity Core Deployment Guide	https://support.spirent.com/SpirentCSC/SC_KnowledgeView?id=DOC10663
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 (includes the APIs added and modified in each release)	
Velocity Portfolio Resource Driver Reference	
Velocity Core Abstract Resource Conditions Language Reference Guide	
Velocity Script examples bundle	
Velocity Virtual Testbed Orchestration Example Instructions and Hello World! Test Script	
Velocity Portfolio License Server Installation Guide	https://support.spirent.com/SpirentCSC/SC_KnowledgeView?id=DOC11183
Velocity Core Agent User Guide	https://support.spirent.com/SpirentCSC/SC_KnowledgeView?id=DOC11235
Velocity Core Datastore Deployment Guide	https://support.spirent.com/SpirentCSC/SC_KnowledgeView?id=DOC10708
Velocity Core Datastore Release Summary	

Note: The **Velocity Core > Related Resources** section on the Spirent Customer Service Center downloads page (https://support.spirent.com/SpirentCSC/) 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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