

NEC Storage V Series Plug-In for Veeam Backup & Replication Quick Start Guide

Contents

Chapter 1: Overview	1
1.1 What is Veeam Backup & Replication?	1
1.2 System requirements	1
1.3 Environment requirements	2
1.4 Enhancements and Changes	4
Chapter 2: Setting up the environment	6
2.1 Preparing the backup environment for the storage system	6
2.1.1 Example of a system configuration	9
2.2 Registering a storage system in Veeam Backup & Replication	12
2.3 Unregistering a storage system from Veeam Backup & Replication	13
2.4 Configuration file	14
Chapter 3: Restrictions	16
3.1 Restrictions	16
Chapter 4: Troubleshooting	20
4.1 What to check first	20
4.2 Handling failures	21
4.2.1 Message: The hostGroup used in the plugin does not exist	21
4.2.2 Message: There is no iSCSI target to register iSCSI name	21
4.2.3 Message: Unable to access file snapshot	22
4.2.4 Message: Unexpected character encountered while parsing value	22
4.2.5 NEC Storage V Series Plug-In processing and storage system processing are slow	22
4.2.6 An error or warning event is logged in the event log of the backup proxy server	22
4.3 Information to be collected when a failure occurs	23
4.3.1 Collecting NEC Storage V Series Plug-In information	23
4.3.2 Collecting storage system information	23

Preface

This document provides information about the environment settings, operating restrictions, and troubleshooting information that you need in order to introduce NEC Storage V Series Plug-In for Veeam Backup & Replication .

Target storage system

This document is applicable to the products (program products) corresponding to the following storage system.

- NEC Storage V10e
- NEC Storage V100
- NEC Storage V300

This document may refer to the storage system of the above model simply as "storage system".

Intended audience

This document is intended for the following administrators:

- Storage system administrators who configure Veeam backup servers and storage systems.
- Backup administrators who use Veeam Backup & Replication to perform backup, restore, and replication operations for a virtual machine on a VMware ESXi host.

About the functions and software described in the manual

The following functions and software are not supported on some models of the storage system. If you use an unsupported storage system, the descriptions of the functions and software are invalid.

Functions and Software	Unsupported storage system
HA Device Manager	NEC Storage V10e
Synchronous Replication	
Asynchronous Replication	
Active Mirror	
Dynamic Tiering	
REST API	

Chapter 1:

Overview

NEC Storage V Series Plug-In for Veeam Backup & Replication is a plug-in that allows you to use storage systems in Veeam Backup & Replication.

1.1 What is Veeam Backup & Replication?

Veeam Backup & Replication is a backup solution used to perform backup, restore, and replication operations for virtual environments such as VMware vSphere. Veeam Backup & Replication is used to back up the virtual machine of a VMware ESXi host used as an application host.

If the virtual machine's VM snapshot retention time is long, it takes longer to commit the VM snapshot data after the backup is complete, which increases load on the machine. With NEC Storage V Series Plug-In, you can reduce the VM snapshot retention time, and prevent the performance degradation of the virtual machine.

You can use the following Veeam Backup & Replication functions: Backup from Storage Snapshots, Data Recovery from Storage Snapshots, and Snapshot Orchestration. For details, see the description of Storage System Snapshot Integration in the Veeam Backup & Replication documentation (User Guide for VMware vSphere (<https://helpcenter.veeam.com/docs/backup/vsphere/>)).

In this document, a server assigned the role of a backup proxy, which is a component of Veeam Backup & Replication, is called a backup proxy server.

Note

- The restore function using a secondary storage system in Data Recovery from Storage Snapshots is not supported.
-

1.2 System requirements

The following describes the specific requirements for NEC Storage V Series Plug-In. For details about Veeam Backup & Replication requirements, see the system requirements listed in the (User Guide for VMware vSphere) for Veeam Backup & Replication.

- The following DKCMAIN firmware versions are supported.
 - NEC Storage V10e
88-08-09-XX or later
 - NEC Storage V100/V300
93-04-21-XX or later

- Licenses for the following program products are required.
 - LUN Manager
 - Dynamic Provisioning
 - Resource Partition Manager
 - Snapshot

1.3 Environment requirements

To use NEC Storage V Series Plug-In, your environment must meet the following requirements:

- You can use Veeam Backup & Replication to perform operations on the VMware ESXi host on which the virtual machine to be backed up is located.

For details on the components and system configuration of Veeam Backup & Replication, see the description of Deployment Scenarios in the Veeam Backup & Replication documentation (User Guide for VMware vSphere).

- The datastore where the VMware ESXi host is to be backed up must be created from a volume on a supported storage system.
- Note the following about the volume to be backed up:
 - The Dynamic Provisioning attribute must be set for the volume to be backed up. Volumes for which the Dynamic Tiering attribute is set are also supported.
 - You can also set the attributes of Dynamic Tiering, and the attributes of supported replication program products.

The types of pairs corresponding to supported replication program products are as follows.

- * Snapshot (root volume only)
- * Synchronous Replication

If the status of the configured pair is PAIR, backup by synchronous replication is supported. For backup that does not use synchronous replication, only the primary volume of the primary site is supported.

- * Asynchronous Replication (primary volume of primary site only)
- * Active Mirror

If the status of the configured pair is PAIR, backup by synchronous replication is supported. For backup that does not use synchronous replication, the backup will fail if the Active Mirror pair is in the PSUS, PSUE, SSUS, or SSWS state and the volume I/O mode is Block.

To back up a Synchronous Replication, Asynchronous Replication, or Active Mirror volume, the volume to be backed up must belong to a device group. This device group

must belong to a copy group created by specifying the same MU number as the Synchronous Replication, Asynchronous Replication, or Active Mirror pair. To back up an Active Mirror volume, specify the copy group name in the following format: *VBR_any-string-of-single-byte-characters*.

To back up a Synchronous Replication or Active Mirror volume by using synchronous replication, specify the following settings in advance:

- * Both the volumes that belong to the target pair meet the following conditions:
 - + The volumes are connected to some hosts by using a host group or iSCSI target.
 - + The host mode of the host group or iSCSI target is [01 [(Deprecated)VMware]] or [21 [VMware Extension]].
- * Both the storage systems that make up the target pair are registered on a Veeam backup server on which NEC Storage V Series Plug-In is installed.
- * The following conditions must be met in order for NEC Storage V Series Plug-In to determine whether the volumes that belong to the target pair are ready for backup:
 - + Each of the primary and secondary side volumes belonging to the target pair belongs to a device group. Each device group on the primary and secondary sides belongs to a copy group created by specifying the same MU number as the target pair. When the settings are specified by using RAID Manager, the device name used to register the target volume to the device group matches on the primary and secondary sides, and the copy group name to which the device group belongs matches on the primary and the secondary sides. The copy group name is in the following format: *VBR_any-string-of-single-byte-characters*.
 - + Both the storage systems that make up the target pair are mutually registered as a remote storage system by the REST API. In addition, when the storage systems are registered by the REST API, they are registered with the IP address used for registering the storage systems on the Veeam backup server.
 - + The credentials (the username and password for the Veeam Backup & Replication dedicated user) registered in Veeam Backup & Replication are the same for both the storage systems that make up the target pair.
- Volumes for which dedupe and compression is enabled are also supported.
- If a pair is configured for the volume to be backed up, the pair type must correspond to a supported replication program product.

If you specify settings other than the aforementioned supported settings, you will not be able to operate the target volume by using Veeam Backup & Replication.

Note

If you mount a volume on a VMware ESXi host, the volume becomes writable from the VMware ESXi host, and the data might be changed.

1.4 Enhancements and Changes

The following describes the enhancements and changes for each version of NEC Storage V Series Plug-In for Veeam Backup & Replication

- Enhancements and Changes in Ver1.2 (1.2.99.0)
 - Supporting Veeam Backup & Replication v12.
 - Supporting NEC Storage V10e.
 - Dedupe and compression volume is supported as a volume to be backed up.
 - Synchronous Replication volume (primary volume only) is supported as a volume to be backed up.
 - Asynchronous Replication volume (primary volume only) is supported as a volume to be backed up.
 - Dynamic Tiering volume is supported as a volume to be backed up.
- Enhancements and Changes in Ver2.0 (2.0.114.0)
 - Supporting Veeam Backup & Replication v12.1.
 - End of support for Veeam Backup & Replication v11/v11a. If you use Veeam Backup & Replication v11/v11a, you need to use Ver1.2 (1.2.99.0).
 - Supporting synchronous replication (Synchronous replication in Veeam Backup & Replication).

The supported volumes are as follows.

- * Synchronous Replication volume.
- * Active Mirror volume.

The supported Veeam Backup & Replication functions are as follows.

- * Backup from Storage Snapshots.
 - * Snapshot Orchestration.
 - * Backup from Storage Snapshots with Snapshot Retention.
- Supporting configuration file that allow you to specify storage resources for backup.

Note

If you upgrade to NEC Storage V Series Plug-In for Veeam Backup & Replication Ver2.0 in environments using NEC Storage V Series Plug-In for Veeam Backup & Replication Ver1.2 or lower, there are some settings that are required before upgrading. For details, see [3.1 Restrictions \(on page 16\)](#) .

Chapter 2:

Setting up the environment

Before introducing NEC Storage V Series Plug-In, the storage system administrator must prepare a backup environment for the storage systems that are in use. The storage system administrator must also use Veeam Backup & Replication to unregister storage systems when they are no longer needed.

Perform the following procedure to set up the environment:

1. [2.1 Preparing the backup environment for the storage system \(on page 6\)](#)

2. Installing NEC Storage V Series Plug-In.

For details, see the description of Installing Storage System Plug-Ins in the Veeam Backup & Replication documentation (User Guide for VMware vSphere).

3. [2.2 Registering a storage system in Veeam Backup & Replication \(on page 12\)](#)

2.1 Preparing the backup environment for the storage system

Create backup storage resources for active storage systems, and then configure the settings so that backup operation users can access the backup storage resources and the volumes targeted for backup.

Before you begin

- Configure the backup infrastructure that is required for Veeam Backup & Replication.

For details, see the description of Backup Infrastructure for Storage Integration in the Veeam Backup & Replication documentation (User Guide for VMware vSphere). To register storage systems after you perform this procedure, see [2.2 Registering a storage system in Veeam Backup & Replication \(on page 12\)](#) .

- For details about the prerequisite environment, see [1.3 Environment requirements \(on page 2\)](#) .
- The system configuration varies depending on whether the LDEVs to be backed up are allocated to meta_resource or to a business resource group. For details, see [2.1.1 Example of a system configuration \(on page 9\)](#) .

A host group or iSCSI target corresponding to the VMware ESXi host used for business must be allocated to meta_resource or to a business resource group.

- Verify that VBR_ has not been added to the beginning of the name for any of the following. If VBR_ has been added, delete it.
 - All resource groups on the storage system

- All Dynamic Provisioning pools on the storage system
- Host groups or iSCSI targets to which meta_resource or business resource groups have been allocated

Procedure

1. (Optional) Create a parity group for backup, and then create a volume with an LDEV in this parity group.

The purpose of this step is to separate the work area from the backup area. Although this step is optional, it is recommended because doing so can minimize the impact of failure.

2. Prepare the Dynamic Provisioning pool for backup.

The procedure varies depending on whether you create a new pool for backup or use an existing pool.

- Creating a new pool for backup

If you created an LDEV for backup in step 1, allocate it as a pool volume.

Specify the pool name in the following format: *VBR_any-string-of-single-byte-characters*. Alternatively, create a configuration file by referring to [2.4 Configuration file \(on page 14\)](#) , and then specify the pool name.

- Using an existing pool

Change the pool name to the following format: *VBR_any-string-of-single-byte-characters*. Alternatively, create a configuration file by referring to [2.4 Configuration file \(on page 14\)](#) , and then specify the pool name.

Note

If you use a pool for business, the pool will also be used for backup, but this is not a problem.

You can use only one Dynamic Provisioning pool as the pool for snapshots or snapshot clones. Do not create more than one such pool.

3. Create a host group or an iSCSI target for a backup proxy server. If the VMware ESXi host is used for restoration and the storage system are connected, create a host group or an iSCSI target for the VMware ESXi host.

Create the host group or iSCSI target by performing the following operations:

- Specify the host group name or iSCSI target name in the following format: *VBR_any-string-of-single-byte-characters*.
- For the host mode, specify [21 [VMware Extension]].

Note

Host mode: [21 [VMware Extension]] also supports backup proxy server operating systems such as Windows and Linux.

- For the host mode options, specify 2, 22, 25, 40, 54, 63, 68, 91, and 110.
- For Fibre Channel connections, register the WWN of the backup proxy server and the WWN of the VMware ESXi host used for restoration to the host group. To use multiple backup proxy servers and VMware ESXi hosts used for restoration, or to use multiple WWNs for each of these machines, register all of the WWNs. In such cases, register each WWN in a separate host group instead of registering all of the WWNs in one host group.

For example, to use all WWNs in the following system configuration, register each WWN (for WWN001 to WWN005) in a separate host group.

- Backup proxy server A (WWN001 and WWN002)
- Backup proxy server B (WWN003 and WWN004)
- VMware ESXi host used for restoration (WWN005)
- For iSCSI connections, create iSCSI targets without registering a host. The total of all of the following iSCSI targets is required:
 - The number of backup proxy servers
 - The number of iSCSI initiators of the backup proxy servers or of the VMware ESXi hosts for restoration

When multiple backup proxy servers or multiple VMware ESXi hosts for restoration are to be used, or when there are multiple iSCSI initiators on the machine to be used, the number of iSCSI targets to be created is the total number of all iSCSI initiators.

For example, to use all iSCSI initiators in the following system configuration, you need to create six iSCSI targets:

- Backup proxy server A (number of iSCSI initiators: 2)
- Backup proxy server B (number of iSCSI initiators: 1)
- VMware ESXi host used for restoration (number of iSCSI initiators: 1)

If these settings are set, the iSCSI target is determined randomly, and the iSCSI initiator of the host is automatically registered. If you want to specify the iSCSI target to which the iSCSI initiator of the host is registered, manually register the target iSCSI initiator to the iSCSI target. In such cases, register one iSCSI initiator for each iSCSI target.

4. Prepare a backup resource group. Specify a resource group name in the following format: `VBR_any-string-of-single-byte-characters`. Alternatively, create a configuration file by referring to [2.4 Configuration file \(on page 14\)](#), and then specify the resource group name.

Allocate the following resources to the resource group:

- All LDEVs allocated as pool volumes to the Dynamic Provisioning pool for backup that was prepared in step 2
- The host groups or iSCSI targets created in step 3
- Unused LDEV ID

If you use Veeam Backup & Replication to create snapshots or snapshot clones, secondary volumes of Snapshot pairs or volumes cloned by using Snapshot will be created on the storage system. You must assign a number of LDEV IDs equal to the number of such secondary volumes and cloned volumes. For this reason, prepare a sufficient number of unused LDEV IDs. You can create up to 8,192 secondary volumes.

You can use only one backup resource group, so do not create more than one such group.

5. Create a backup operation user group, and then create a user account for this group.

Assign the role Storage Administrator (View Only), Storage Administrator (Provisioning), and Storage Administrator (Local Copy) to the backup operation user group.

The user account is used to access the resource group where the LDEVs to be backed up are allocated (meta_resource or a business resource group) and the backup resource group you created in step 4. You can access the backup resource group only by using this user account or the built-in user account.

6. Assign the resource group (the meta_resource or business resource group) where the LDEVs that are to be backed up are allocated and the backup resource group you created in step 4 to the user group.

Do not assign any resource group other than the above to the user group you created.

Do not assign any other user group to the backup resource group.

7. Check the time zone and time of the Veeam backup server on which NEC Storage V Series Plug-In is installed and the time zone and time of the storage system. If the time zones and times do not match, change the settings so that they match.

2.1.1 Example of a system configuration

The following describes each of the system configurations for backing up volumes in meta_resource and for backing up volumes in a business resource group.

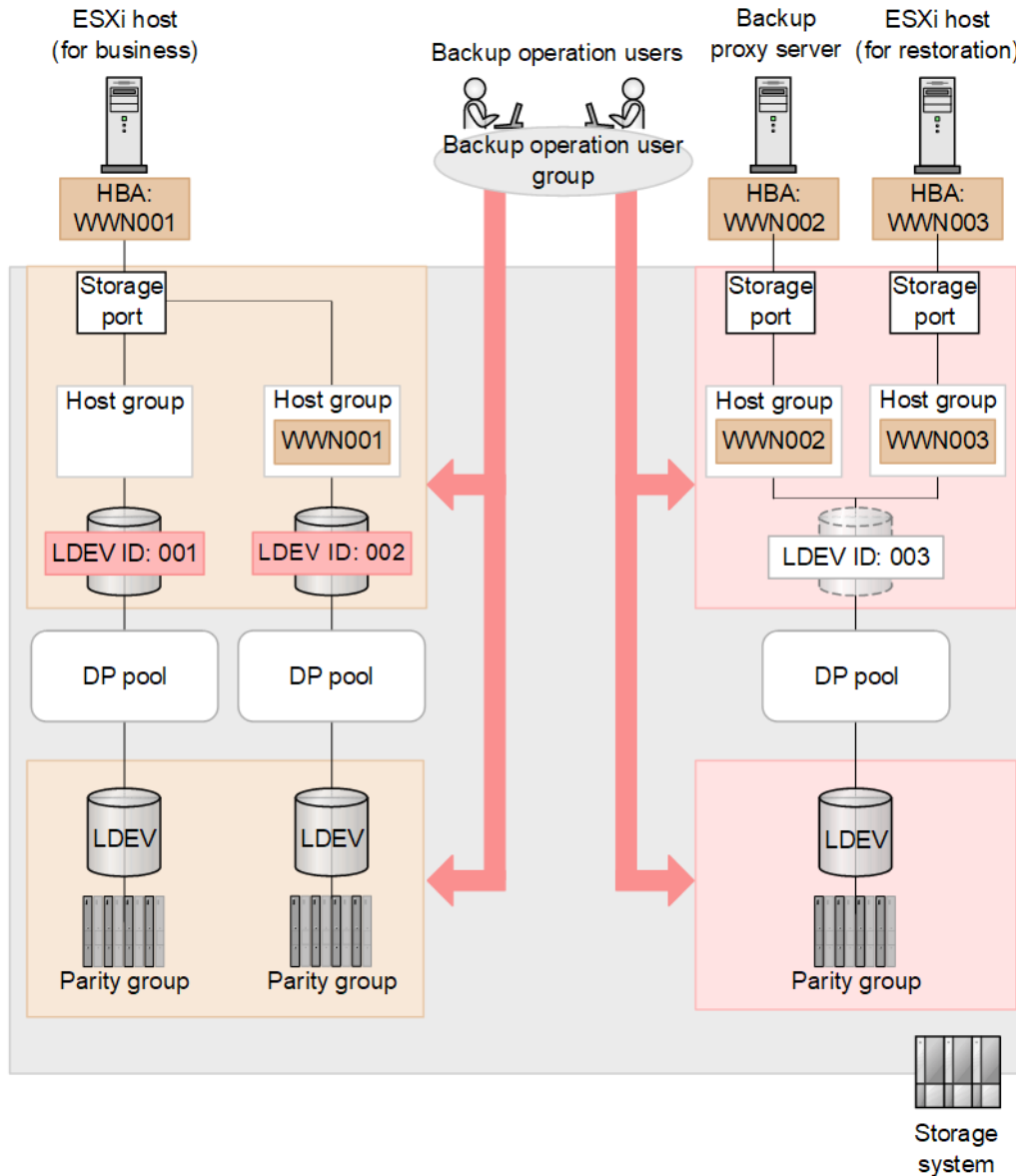
This example describes a system configuration assuming that the following storage resources are created as storage resources for backup.

- Parity groups
- LDEVs for pool volumes
- Dynamic Provisioning pool

- Host group for the backup proxy server
- Host group for the VMware ESXi host to be used for restoration
- Unused LDEV ID (LDEV ID: 003)

When backing up volumes in meta_resource

The following shows an example of backing up the LDEV allocated to meta_resource when there is no business resource group.

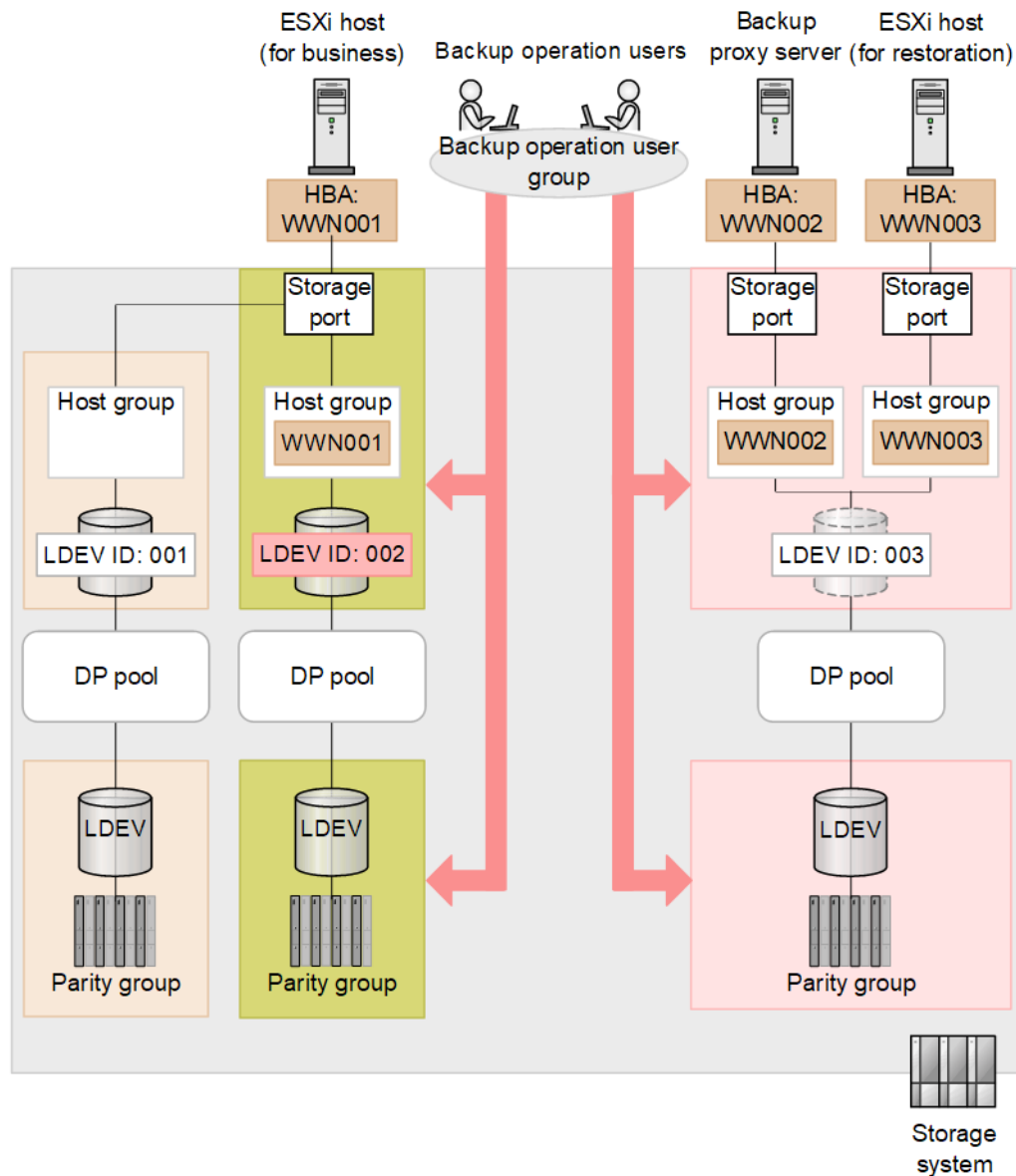


Legend

- : meta_resource
- : Backup resource group
- : Volumes to be backed up
- : User access to resource groups

When backing up volumes in a business resource group

The following shows an example where a business resource group has been created, and you back up the LDEVs allocated to the business resource group.



Legend

- : meta_resource
- : Business resource group
- : Backup resource group
- : Volumes to be backed up
- : User access to resource groups

2.2 Registering a storage system in Veeam Backup & Replication

Register the storage system in Veeam Backup & Replication.

You can register multiple storage systems for one of the Veeam backup servers configured in the backup environment. However, you cannot register one storage system for multiple Veeam backup servers.

For details, see the description of Adding Universal Storage API Integrated Systems in the Veeam Backup & Replication documentation (User Guide for VMware vSphere).

When you use the [Add Storage] wizard, note the following:

- In the vendor list, select [NEC Storage V Series].
- For [DNS name or IP address], specify the IP address of CTL1 or CTL2.

If an IPv4 address and an IPv6 address are set, specify the IPv4 address.

You can register only one of these controllers for each storage system.

Note

You can specify an IPv6 address if the version of Veeam Backup & Replication is v12 or later.

- Specify [Block or file storage for VMware vSphere] for [Role].
- For [Credential], specify the user account created in [2.1 Preparing the backup environment for the storage system \(on page 6\)](#).

2.3 Unregistering a storage system from Veeam Backup & Replication

If you no longer need to back up a storage system, unregister the storage system from Veeam Backup & Replication, and then delete the host groups or iSCSI targets that are no longer needed.

Note

If you unregister a storage system from Veeam Backup & Replication, all of the following storage resources created in the resource group for backup that you created by performing the procedure in [2.1 Preparing the backup environment for the storage system \(on page 6\)](#) will also be deleted.

- Volumes cloned by using Snapshot (snapshot clones of Veeam Backup & Replication)
 - LU paths set for these volumes (LU paths set for the snapshots and for the snapshot clones of Veeam Backup & Replication)
-

Procedure

1. Unregister the storage system from Veeam Backup & Replication.

For details, see the description of Removing Storage Systems in the Veeam Backup & Replication documentation (User Guide for VMware vSphere).

2. Delete all of the host groups or iSCSI targets you created by performing the procedure in [2.1 Preparing the backup environment for the storage system \(on page 6\)](#) that remain on the unregistered storage system. However, you can skip this step if you want to continue using them.

2.4 Configuration file

By using a configuration file, you can specify backup storage resources (the storage resources used for backup).

Note

Use this functionality optionally as needed.

Procedure

1. Create a configuration file in accordance with the following conditions:

- Configuration file to be created

Create one configuration file for one storage system.

- Configuration file specifications

- File name

serial-number-of-the-storage-system_config.txt

- File format

Text

- Character encoding

UTF-8

- Storage resource specification format

Specify the backup storage resources in the following format: *KEY=VALUE*.

- Type of storage resources that can be specified

Resource type	KEY	VALUE
Dynamic Provisioning pool used for backup	PoolName	<i>pool-name</i>
Resource group used for backup	RSGName	<i>resource-group-name</i>

2. Place the configuration file in the following location:

<Veeam-Backup&Replication-path>\Plugins\Storage\NEC Storage V Series\conf

Example: C:\Program Files\Veeam\Backup and Replication\Plugins\Storage\N
EC Storage V Series\conf\123456_config.txt

The following shows an example of the content of a configuration file.

```
PoolName=Backup_Pool_001  
RSGName=Backup_RSG_001
```

Chapter 3:

Restrictions

The following restrictions apply when using NEC Storage V Series Plug-In.

3.1 Restrictions

- Do not use storage system management software such as Device Manager - Storage Navigator or RAID Manager to perform operations on the following storage resources unless a procedure or other description explicitly instructs you to use such software:

- Snapshots or snapshot clones created by using Veeam Backup & Replication

Do not use storage system management software to perform operations on the following storage resources: secondary volumes of Snapshot pairs and volumes cloned by using Snapshot.

- Storage resources created by using the procedure in [2.1 Preparing the backup environment for the storage system](#) (on page 6)

If you perform operations by using storage system management software, the following problems might occur:

- The data on the storage system and the data in Veeam Backup & Replication might become inconsistent, and you might not be able to perform operations on snapshots or snapshot clones by using Veeam Backup & Replication.
- The data in a snapshot or in its clone might change.
- You might not be able to delete clone volumes.
- For storage systems that use NEC Storage V Series Plug-In, do not add `_DEL` to the end of LDEV names, because such LDEVs are periodically and automatically deleted.
- If a volume with the name *any-string-of-single-byte-characters_DEL (LDEV-ID)* appears in the Storage Infrastructure view, use storage system management software such as Device Manager - Storage Navigator, find the corresponding volume based on the LDEV ID in the volume name, and then delete that volume.
- If the following changes are made to the backup proxy server or the VMware ESXi host used for restoration, you must change the host group or iSCSI target settings.
 - The number of machines
 - The ports to be used and the number of ports
- Do not delete snapshots while a configuration window of Device Manager - Storage Navigator is open.

If an attempt to delete a snapshot fails with the following message, use storage system management software to manually delete the LDEV specified in the message.

Failed to change the label of LDEV. Please delete the LDEV manually. (LDEV ID: *LDEV-ID*)

- If you want to back up LDEVs in a Microsoft VSS environment, when you create backup jobs, do not set the Application-Aware Processing options. If you set these options, the backup jobs might not run successfully.
- For backup that does not use synchronous replication, if the two volumes in an Active Mirror pair are registered as one datastore and a virtual machine on this datastore is specified as a backup target, in Veeam Backup & Replication, one of the two volumes will be selected at random to be backed up.
- When you delete the registration of a storage system, volumes for which Snapshot cloning is in progress will not be deleted. Instead, `_DEL` will be added to the end of the volume name and the volume will remain in the storage system. In such cases, make sure that the pair between the secondary volume of the Snapshot pair and the volume cloned by using Snapshot has been deleted by the storage system's management software, and then delete the target volumes by using the storage system's management software.

Note

This problem occurs for the following combinations of storage models and DKCMAIN firmware versions. The problem has been fixed in DKCMAIN firmware versions later than those listed below. Similarly, the problem does not affect storage models other than those listed below.

Storage model	DKCMAIN firmware version
NEC Storage V100, V300	<ul style="list-style-type: none"> • Earlier than 93-05-22-XX

- If dedupe and compression is enabled for the secondary volume of a Snapshot pair or for a volume cloned by using Snapshot, you will not be able to delete snapshots of that volume by using Veeam Backup & Replication. Use the storage system's management software to delete the target volume.
- When Instant Recovery using a Storage Snapshot created by Backup from Storage Snapshots with Snapshot Retention job is executed, the Instant Recovery may complete normally despite incomplete copy processing in Quick Migration. In this case, the restored VM may not be able to use.

When this case occurs, please contact to Veeam customer support.

- If you perform Snapshot Orchestration or Backup from Storage Snapshots on a virtual machine on the following volumes, the following message may be displayed, and the job may fail:
 - Volumes with multiple LU paths configured.

- Volumes with Active Mirror pairs (when the two storages that make up the Active Mirror pair are registered on a single Veeam Backup server)

Cannot choose between the volume LUNs with the same ID / No synchronous replication relationship was detected for these volumes

If this issue occurs, it can be avoided by following the steps below. For more details, please contact Veeam customer support.

- Install Veeam Backup & Replication v12 P20230412.
- Add the SanScsiIdCollisionFail registry on the Veeam Backup server.

```
Path : HKEY_LOCAL_MACHINE\SOFTWARE\Veeam\Veeam Backup and Replication\
Name : SanScsiIdCollisionFail
Type : REG_DWORD
Value : 0
```

- Restart all services of Veeam Backup & Replication on the Veeam Backup server or restart the Veeam Backup server to apply the registry changes.
- Create a new copy group and device group that meet the requirements, regardless of whether the copy group and device group managing the backup target volume already exist or not.

It is recommended to create only one copy group that meets the requirements and configure it to manage all pairs of Active Mirror volumes to be backed up, as well as all pairs of an Active Mirror volume and Synchronous Replication volume to be backed up using synchronous replication.

However, if multiple combinations of storages are operated that make up the backup target pairs, it is necessary to create separate copy groups for each combination of storages, and the names of these copy groups should be different. If the names of these copy groups are the same, backups using synchronous replication might not function properly.

For example, if you want to backup volumes that have Active Mirror pairs between Storage A and B, and between Storage B and C, you need to create separate copy groups with different names to manage the volumes with Active Mirror pairs between Storage A and B, and between Storage B and C.

- Do not allocate a serial number of a virtual ID to a backup resource group. Otherwise, different volumes created by NEC Storage V Series Plug-In for Veeam Backup & Replication might be connected to the same host as devices with the same SCSI ID, which can cause a critical problem on the host.
- If there are multiple resource groups allocated to a backup operation user group, and these resource group IDs are far apart, depending on a load on a storage system, Rescan (Storage Discovery) or unregistering the storage system might fail with the following message.

The timeout (xx:xx:xx) occurred in the REST-API response. Try the operation again when the storage load is light.

To avoid this issue, configure these resource group IDs to be as close to each other as possible.

- Backing up the secondary volumes of Synchronous Replication pairs is not supported, but in some cases, the backup job may complete without errors. To avoid this issue, please refer to section see [1.3 Environment requirements \(on page 2\)](#) and configure the NEC Storage V Series Plug-In to meet the conditions necessary for determining if the volumes belonging to the target pairs can be backed up.
- When running a backup job for a synchronized Synchronous Replication or Active Mirror pair, if the following message is shown and the backup job is not functioning, some settings is incorrect. Correct settings by referring to [1.3 Environment requirements \(on page 2\)](#) section of the Quick Start Guide.

Synchronous replication relationships not found

- The NEC Storage V Series Plug-In automatically deletes resources such as temporary snapshots created during backups at regular intervals. In Ver2.0, the automatic deletion cycle is set to every 24 hours, which is a change from Ver1.2 and below (which had a 10-minute cycle). Until the resources such as temporary snapshots are deleted, please allocate an ample number of unused LDEV IDs to the backup resource group, as it uses the allocated LDEV IDs for the backup.
- When upgrading from NEC Storage V Series Plug-In for Veeam Backup & Replication Ver1.2 and below to Ver2.0, please be aware of the following points:
 - If you are using the backup of volumes with Active Mirror pairs, you need to change the name of the copy group that manages volumes with Active Mirror pairs to the following format: `VBR_any-string-of-single-byte-characters` before upgrading NEC Storage V Series Plug-In. If this configuration is not performed, the backup of the mentioned volumes will fail after upgrading NEC Storage V Series Plug-In.
 - If you are using Veeam Backup & Replication v12.1.1.56 or below, upgrading Veeam Backup & Replication or installing private fix is required before upgrading NEC Storage V Series Plug-In. Please refer to the Deployment Information section in Veeam public information (<https://www.veeam.com/kb4191>) for specific instructions. If the instructions are not followed accordingly, performing an Instant Recovery using the snapshots obtained before upgrading NEC Storage V Series Plug-In may result in the virtual machines not being restored correctly.

Chapter 4:

Troubleshooting

The following describes how to handle failures that occur during operation and how to collect maintenance information.

4.1 What to check first

If an error occurs, first check the environment. The procedure for the check is as follows.

Note

If the storage system and Veeam Backup & Replication are performing other processing in parallel, an operation might fail because of a temporarily high load or processing conflict. In such cases, try that operation again.

1. Refer to [Chapter 2: Setting up the environment \(on page 6\)](#) and make sure that the storage system environment is configured correctly.

Also, perform the following checks to ensure that the status is normal.

- Make sure that the status of the network environment is normal.
 - Make sure that the target datastore and virtual machine are working correctly.
2. For the volumes to be used, perform the following checks using the storage system management software to ensure that the settings and status are correct.

For the snapshots and snapshot clones created using Veeam Backup & Replication, verify that the secondary volumes of the Snapshot pairs and the volumes that were cloned by using Snapshot are correct.

- Make sure that the target volume and Snapshot pair created for the volume are correct.
 - Make sure that unused LDEV IDs have been assigned to the backup resource group created in [2.1 Preparing the backup environment for the storage system \(on page 6\)](#) .
Make sure that a sufficient number of LDEV IDs have been assigned.
3. For the connection between the storage system and the backup proxy server or VMware ESXi host used for restoration, make sure that the environment is configured correctly as follows.
 - Make sure that the Fibre Channel port or iSCSI port for the backup proxy server is not disabled and that its status is normal.
 - Make sure that the Fibre Channel port or iSCSI port of the VMware ESXi host used for restoration is not disabled and does not have an abnormal status.
 - Make sure the Fibre Channel or iSCSI communication channel is functioning properly.

For example, verify the following:

- The path is physically connected.
 - Devices such as the relay switch are running.
 - Logical settings such as zoning are specified correctly.
4. Refer to [2.1 Preparing the backup environment for the storage system \(on page 6\)](#) and make sure that the host group and iSCSI target are configured correctly.

Make sure that the following items are configured correctly:

- Host group name or iSCSI target name
- Host mode
- Host mode options

4.2 Handling failures

The following describes how to handle failures that occur during operation.

4.2.1 Message: The hostGroup used in the plugin does not exist

If you are using a Fibre Channel connection and the host group is not configured correctly, this message might appear.

Make sure to perform the following procedures listed in [2.1 Preparing the backup environment for the storage system \(on page 6\)](#).

- Creating a host group for the backup proxy server and VMware ESXi host
- Allocating the host group to a backup resource group

After performing the above checks, rerun the processing.

4.2.2 Message: There is no iSCSI target to register iSCSI name

If you are using an iSCSI connection and the iSCSI target is not configured correctly, this message might appear.

Make sure to perform the following procedures listed in [2.1 Preparing the backup environment for the storage system \(on page 6\)](#).

- Creating an iSCSI target for the backup proxy server and VMware ESXi host
- Allocating the iSCSI target to a backup resource group

After performing the above checks, rerun the processing.

4.2.3 Message: Unable to access file snapshot

If this message is output while the backup processing is running, make sure that there is sufficient space in the Dynamic Provisioning pool for backup, and then rerun the processing.

4.2.4 Message: Unexpected character encountered while parsing value

A communication problem between NEC Storage V Series Plug-In and the storage system or a problem in the processing tasks on the storage system might prevent to obtain the correct information. To ensure that the status is normal, make sure:

- The status of the network environment is normal.
- The storage system is running.
- The REST API of the storage system is running.
- The load on the storage system is not high. For example, make sure that a large number of processing tasks are not performed on the storage system.

After performing the above checks, rerun the processing.

4.2.5 NEC Storage V Series Plug-In processing and storage system processing are slow

When multiple users perform processing tasks at the same time, or when multiple jobs run at the same time, it might take a long time for NEC Storage V Series Plug-In processing and storage system processing to finish.

Avoid running multiple processing tasks simultaneously by reducing the number of users who perform operations, or by staggering the start times of multiple jobs.

4.2.6 An error or warning event is logged in the event log of the backup proxy server

The Windows Server that is operating as the backup proxy server might log any of the events listed in the following table. These events are issued when verification processing of the backup data completes in Veeam Backup & Replication and the volume is successfully disconnected. No action is necessary because this is normal behavior. If a path error occurs due to a cause other than the processing in Veeam Backup & Replication, check the cause of the error and take remedial action.

Event ID	Level	Message	Remarks
157	Warning	Disk <i>number</i> has been surprise removed.	None.
15	Error	The device, <i>a-path-of-device</i> , is not ready for access yet.	None.

Event ID	Level	Message	Remarks
20781	Error	KAPL05301-E A path has been removed. (The following part is omitted.)	This is issued when HA Dynamic Link Manager is used.
32787	Error	KAPL08019-E The path (<i>path-id</i>) detected an error (<i>error-code</i>). (The following part is omitted.)	This is issued when HA Dynamic Link Manager is used.
32790	Error	KAPL08022-E A path error occurred. (The following part is omitted.)	This is issued when HA Dynamic Link Manager is used.
32794	Error	KAPL08026-E An error occurred on all the paths of the LU. (The following part is omitted.)	This is issued when HA Dynamic Link Manager is used.

4.3 Information to be collected when a failure occurs

If a failure occurs in NEC Storage V Series Plug-In, collect the information, and then contact your maintenance staff.

4.3.1 Collecting NEC Storage V Series Plug-In information

NEC Storage V Series Plug-In information is included in the log files of the Veeam backup server on which NEC Storage V Series Plug-In is installed. For details on how to collect those log files, see the description of Exporting Logs in the Veeam Backup & Replication documentation (User Guide for VMware vSphere). When you select the target component for which to collect log files, select the Veeam backup server on which NEC Storage V Series Plug-In is installed.

4.3.2 Collecting storage system information

If you are using an SVP, collect the normal dump files. If you are not using an SVP, collect system dumps by using the Maintenance Utility. For details about how to collect the dump files of these storage systems.

**NEC Storage V Series Plug-In for Veeam Backup & Replication
Quick Start Guide**

IV-UG-403E-003-04

4st Edition in July 2024

NEC Corporation

© NEC Corporation 2022-2024