



Veeam Backup for Nutanix AHV 5.0 Release Notes

This document provides last-minute information about Veeam Backup for Nutanix AHV 5.0, including system requirements, installation procedure, as well as relevant information on technical support, documentation, and online resources.

For existing deployments, Veeam Backup for Nutanix AHV version 3.0, 3a, 4.0 or 4a can be upgraded to version 5.0 together with the upgrade of the Nutanix AHV Plug-in.

For new deployments, the release version of Veeam Backup for Nutanix AHV 5.0 is available for download from the [Veeam downloads page](#) starting from September 27th, 2023.

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System Requirements

Platform

- Nutanix AOS versions 6.5.X or later

Virtual Hardware

During the deployment process, the Veeam Backup Nutanix AHV backup appliance is deployed as a dedicated Linux-based VM in a Nutanix AHV cluster you want to protect. The backup appliance performs management operations and handles backup and restore tasks (if the embedded worker is enabled). If you deploy Veeam Backup Nutanix AHV using the default configuration, the following compute resources will be allocated to the backup appliance:

- *CPU*: 4 vCPU
- *Memory*: 4 GB RAM
- *Disk Space*: 100 GB for product installation, backup appliance internal database files, logs, and other data

With the default configuration, the backup appliance can perform management operations in a cluster with less than 1000 VMs and process less than 100 jobs, and handle up to 4 concurrent backup and restore tasks. While deploying a new backup appliance or editing settings of an existing one, you can adjust compute resources allocated to it according to the recommendations described in the [Veeam Backup for Nutanix AHV User Guide](#).

For large deployments (more than 1000 VMs in the cluster or more than 100 jobs), it is recommended to configure dedicated workers that perform data processing tasks. Workers are Linux-based VMs that are distributed among the cluster hosts (nodes) and are automatically launched for the duration of a backup or restore process. VMs running as dedicated workers must be allocated the following compute resources for each concurrent task:

- *CPU*: 1 vCPU
- *Memory*: 1 GB RAM

While configuring dedicated workers, follow the recommendations described in the [Veeam Backup for Nutanix AHV User Guide](#).

Veeam Backup & Replication and Nutanix AHV Plug-in

Veeam Backup for Nutanix AHV includes Nutanix AHV Plug-in 12.5.0.465 and Nutanix AHV backup appliance 5.0.0.1080.

The Nutanix AHV backup appliance requires the Nutanix AHV Plug-in installed on the Veeam Backup & Replication 12 (12.0.0.1420 or later) server.

What's New in Version 5.0

New Features

- NC2 clusters are now supported.
- Overlay subnets are now supported for appliance and worker deployments and for VM restore (we restore these networks, previously they were skipped)
- Backup appliance image is no longer removed from cluster after deployment. The same image is used for deploying workers.
- Backup Improvements:
 - Improved backup speed - CBT read ahead has been added.
 - BitLocker support for Windows (skip dirty blocks for NTFS filesystem)
 - Workers have been introduced. Workers are additional VMs that handle the backup/restore job processing and allow to split these workloads across multiple physical servers (cluster nodes).
 - Bottleneck reporting information has been added to backup job sessions and task sessions.
 - The Retry button has been added in the web console to retry the backup operation for VMs that failed to be backed up during a job run.
 - The Clone button has been added in the web console to copy jobs.
- Job wizard improvements:
 - Added the New Job wizard to the Veeam Backup & Replication console.
 - The whole cluster can be selected to be processed in a job.
 - A backup scope can contain a combination of resources (VM, PD, cluster) to be included or excluded. Exclude rules override include rules.
 - Disk rules can be specified for any objects (VMs, PDs, Cluster). More specific rules override less specific ones.
 - Exclusions can be now configured in snapshot and PD snapshot jobs.
 - VM priorities in a job allow to organize processing order in a job.
- Users and roles:
 - Added support for multiple portal users.
 - User roles have been introduced.
 - MFA support has been introduced for both web console and SSH access.
- Updates
 - Internet proxy can be set up for getting updates from deb repositories. These settings will be used for both backup appliance and all the dependent workers.
- Web console improvements
 - The Copy to clipboard button has been added to the Summary step of all wizards.
 - All system-related sessions are grouped under "System tasks" in the session filter.
 - Updated network settings configuration tab (DHCP settings are showed, validation is added)
 - Updated e-mail settings configuration tab
- Data synchronization improvements:
 - Disk restore sessions are now synchronized to the Veeam Backup & Replication console.

- Restore sessions initiated from the web console are now visible in the Veeam Backup & Replication console.
- System sessions are now synchronized from web console to the Veeam Backup & Replication console.

Upgrade & Deployment Considerations

Backup Appliance VM Specifications

- Ubuntu has been updated from 20.04 LTS to 22.04 LTS
- Additional compute resources can be allocated to the backup appliance without restarting the backup appliance VM.
- While allocating compute resources to a backup appliance or worker VM, Veeam Backup for Nutanix AHV now uses the *vCPU(s)* resource instead of *Number of Cores per vCPU*.

Backup Appliance Upgrade and Update

- Major upgrades of the backup appliance from the previous version are done via re-deployment. The previous backup appliance configuration will be backed up, a new appliance will be deployed, and the configuration will be restored to a new appliance. The old appliance will be removed after a successful upgrade.
- During minor backup appliance updates if installed from the Veeam Backup & Replication console, a VM snapshot will be automatically created before starting update. If something goes wrong, VM will be automatically reverted to the snapshot.

Known Issues and Limitations

Backup Infrastructure

Nutanix AHV Cluster

- You can add only one Nutanix AHV backup appliance per Nutanix AHV cluster.
- You cannot use Prism Central IP addresses to add a Nutanix AHV cluster to the Veeam Backup & Replication server.

Backup Appliance

- The backup appliance does not support IPv6, therefore the backup infrastructure components the backup appliance communicates with (such as the backup server and the Nutanix AHV cluster) must be reachable using IPv4 addresses.
- The backup appliance VM is configured with a single network interface. The interface is used for management, backup and recovery operations. The interface needs network access to both Nutanix AHV cluster IP addresses, and to Veeam Backup & Replication servers and repositories.
- The backup appliance performs all data protection and disaster recovery operations according to the time zone set on the backup server.
- The backup appliance does not allow you to add inactive protection domains to any jobs.
- The backup appliance does not require any additional settings for Nutanix AHV VM High Availability. For details, see the [Nutanix KB](#).
- After you enable SSH access in the backup appliance web console, you can establish an SSH connection and then disable the access. The current connection will not be terminated. However, new SSH connections will not be established.

Workers

- Installing worker updates is performed on each worker start. To disable automatic updates (for example, if your infrastructure does not have connection to Internet) disable the [Obtain updates from deb repositories](#) option in the backup appliance web console.
- Starting workers for data processing is performed serially not in parallel, that is, no new worker starts until there is a worker being prepared.
- Number of network adapters for a worker VM is limited to one.
- Testing worker session will fail if host affinity was specified, but the worker was started on another host.
- Workers may start on the same host if automatic host affinity is enabled, and the number of workers has exceeded the number of hosts in the cluster.

Configuration Backup and Restore

- Configuration backup of backup appliances will be created automatically with Veeam Backup & Replication configuration backup if configuration backup encryption is turned on.
- Configuration backup cannot be restored onto multiple backup appliances to avoid job collision. If you want to restore configuration on another backup appliance, remove the original backup appliance first.

Veeam Backup & Replication Repository

- Veeam Backup for Nutanix AHV does not support storing backups in Veeam Cloud Connect repositories. However, you can use Veeam Cloud Connect repositories for storing copies of backups created with Veeam Backup for Nutanix AHV.

Nutanix CVM

- Nutanix CVM cannot be backed up with Veeam Backup for Nutanix AHV.
- If you raise the number of concurrent backup tasks, backup jobs may fail due to CVM resource limitations. The CVM on each node of the cluster may need additional resources.

Data Protection

Backup Jobs

- Veeam Backup for Nutanix AHV creates forward incremental per-VM backup chains (one backup chain contains data for one VM). When you add several VMs to a backup job, Veeam Backup for Nutanix AHV creates individual backup chains on the Veeam backup repository, one for each VM processed by the job. Note that for forward incremental backup chains, you can create active or synthetic full backups. For more information, see the [Backup Methods](#) section of the Veeam Backup & Replication User Guide.
- Veeam Backup for Nutanix AHV can create application-consistent backups of a VM only if it meets the requirements listed in the [Nutanix Documentation](#). Application-consistent backups allow you to perform application Items restore. Alternatively, to create application-consistent backups, you can use Veeam Agent for Linux or Veeam Agent for Windows.
- By default, Veeam Backup for Nutanix AHV applies the following deduplication and compression settings to backed-up data:
 - Deduplication: *Enabled*
 - Data compression level: *Optimal*
 - Storage optimization: *1MB*

Due to technical limitations, you cannot change these settings while configuring backup jobs.

- By default, backup encryption is disabled for backed-up data. However, you can enable encryption at the repository level. For more information, see the [Access Permissions](#) section of the Veeam Backup & Replication User Guide.
- Veeam Backup for Nutanix AHV does not use the Changed Block Tracking (CBT) mechanism for backup jobs which include a protection domain with consistency groups that contain two or more entities. If CBT cannot be used, Veeam Backup for Nutanix AHV reads the whole content of processed disks and compares it with backed-up data that already exists in the backup repository. In this case, the completion time of incremental backups may be substantially longer than ordinary CBT incremental operations.
- Since Veeam Backup & Replication does not allow you to assign [information about locations](#) to Nutanix AHV clusters and backup appliances, job statistics do not include information on the Nutanix AHV VM data migration between different geographic regions.
- For better performance, the backup appliance does not refresh the list of available VMs in the cluster on job start. However, the backup appliance synchronizes the VM list every 15 minutes. If you still need to refresh the list on every job start, set the `RescanVmsInProtectedObjectsRefresh` parameter to true in the `appsettings.json` configuration file.
- Manual *Move backup* functionality is not supported for Nutanix AHV backups.
- The **Retry** and **Clone** buttons are not available for Nutanix AHV jobs in the Veeam Backup & Replication console.
- The Bottleneck information is not shown in the Bottleneck field in job statistics. However, the information is added to job session logs.
- After upgrade to version 5.0, Veeam Backup for Nutanix AHV will automatically update each backup job to transform VM exclusion rules to the list of VMs excluded from the job.

Limitations for Backing Up Volume Groups

- If you specify a VM as the source for a backup job, Veeam Backup for Nutanix AHV processes volume groups attached to the VM. However, if you back up the VM with the attached volume groups, Veeam Backup for Nutanix AHV will create a crash-inconsistent backup. To create a crash-consistent backup, you must add the VM and the volume group to the same consistency group and back up a protection domain which includes this group. For more information on consistency groups, see [Nutanix documentation](#).
- If you specify a protection domain as the source for a backup job, Veeam Backup for Nutanix AHV processes volume groups only if they are attached to VMs that belong to the domain. For more information on consistency groups, see [Nutanix documentation](#).
- Veeam Backup for Nutanix AHV does not process volume groups if CHAP authentication is enabled. For more information, see [Nutanix documentation](#).

PD Snapshot Jobs

- You cannot create snapshots of a protection domain if it contains multiple VMs or VGs with the same name.
- You cannot create snapshots of a protection domain if it contains VMs with attached volume groups that are not included into the protection domain.
- You cannot create snapshots of instantly recovered VMs since the VM disks have not completed migration to the Nutanix AHV cluster yet, which may cause the snapshots to become incomplete in case the mount server is disconnected.
- You cannot create snapshots of a protection domain in the Inactive state (for example, after having been replicated to a remote site).

Snapshot Jobs

- You cannot use snapshot-only jobs to create PD snapshots. If you add a protection domain to a snapshot job, Veeam Backup for Nutanix AHV will create snapshots of individual VMs included into the protection domain.
- You cannot create snapshots of instantly recovered VMs since the VM disks have not completed migration to the Nutanix AHV cluster yet, which may cause the snapshots to become incomplete in case the mount server is disconnected.

Health Check

- Second Health Check of same data corrupt returns green session (disk is skipped from processing)

Backup Import Operations

- Backups cannot be imported from unsupported repository types. This can affect importing from backup copy jobs.

Backup Copy

- Backup Copy exclusions does not accept Nutanix AHV jobs and objects.

VeeamZIP

- VeeamZIP retention is not supported.
- An SMB share that requires authentication cannot be specified as a local or shared folder. However, it can be added to the backup infrastructure and then set as backup repository.

Backup Files and Jobs in Veeam Backup & Replication Console

- Backup files and jobs created by the backup appliance are visible in the Veeam Backup & Replication console. However, some of the Veeam Backup & Replication functionality is not available for these backups and jobs.
- In Veeam Backup & Replication console, you can:
 - Create and edit backup, snapshot, PD snapshot jobs.
 - Enable and disable backup jobs.
 - Use backup jobs as a source for *backup copy* or *backup to tape* jobs.
 - Create VeeamZIP backups.
 - Delete backup jobs.
 - Delete backups manually.
 - View statistics of backup jobs.
 - Start and stop backup jobs.
 - Launch the backup appliance web console.
 - Back up and restore backup appliance configuration.

Data Restore

- If you restore the VM from a snapshot of any type, you cannot change the storage container.
- If you restore the VM with an affinity policy not to the original cluster, you must manually configure the affinity policy manually before starting the recovered VM. For more information on affinity policies, see [Nutanix documentation](#).

Restore Using Backup Appliance Web Console

- If you restore the VM from a backup, you can select a storage container only for all VM disks, not separately for each VM disk.
- If you restore the VM from a user snapshot or PD snapshot, you cannot change VM network settings. However, after the VM is restored, you can configure them using the Nutanix Prism console as described in [Nutanix documentation](#).
- You can restore volume groups only as part of VMs to which the volume groups are attached. If you restore to original location, the backup appliance overwrites the original VM and volume group. If you restore to different location, the backup appliance creates a new VM and volume group.

Restore in Veeam Backup & Replication Console

- If you restore the VM from a user snapshot or PD snapshot, you cannot change VM network settings. However, after the VM is restored, you can configure them using the Nutanix Prism console as described in [Nutanix documentation](#). If you choose to restore to different location and choose to disconnect from all networks, the new VM will be created without networks.
- If you restore the VM from a backup stored in the archive tier of the scale-out backup repository, you must first retrieve backup data as described in the Veeam Backup & Replication User Guide, section [Retrieving Backup Files](#). Note that you cannot perform Entire VM restore from backups stored in the archive tier that consists of the Amazon S3 Glacier Instant Retrieval extent. For those backups, you can perform Instant Recovery.
- If you restore the VM from a backup of a VMware, Hyper-V VM or from a backup created by Veeam Agent, a restored VM may have network connection problems. To resolve the issue, install Nutanix Guest Tools on the restored VM as described in [Nutanix documentation](#).
- You cannot perform Entire VM Restore to Nutanix AHV from a Veeam Cloud Connect repository or an external repository. However, you can use Instant Recovery to restore VMs to Nutanix AHV from Veeam Cloud Connect or external repositories.
- You cannot perform VM restore from a tape to Nutanix AHV. A tape backup needs to be returned to a supported repository to complete the restore operation.

File-Level Restore

- If you want to perform file-level restore from VG disks, you should run FLR from backups of the VM that have the required VG attached to them.
- You can use [Veeam Backup Enterprise Manager](#) to file-level restore guest OS files of Nutanix AHV VMs and manage Nutanix AHV VM backup copy jobs. All other operations are not supported.

Instant Recovery

- You can perform instant recovery to VMware and Hyper-V hosts from backups created by Veeam Backup for Nutanix AHV. VMware vSphere or Hyper-V hosts must be added to the Veeam Backup & Replication backup infrastructure.
- It is recommended to deploy a dedicated host as a mount server and allocate a minimum of 512 MB of additional RAM for each VM disk that you want to recover at the same time. For example, if you restore a VM with 4 disks, you need an additional 2 GB of RAM on the mount server.
- A Nutanix AHV cluster must be added to the Veeam Backup & Replication backup infrastructure. No backup appliance is required for Instant Recovery.
- Veeam Backup for Nutanix AHV requires 64 MB of RAM for a VM to perform Instant Recovery. For VMs with less than 64 MB of RAM, Veeam Backup for Nutanix AHV increases the amount of RAM to 64 MB during the restore process.
- If you perform Instant Recovery using a VM backup stored in the archive tier of the scale-out backup repository, you must first retrieve backup data as described in the Veeam Backup & Replication User Guide,

section [Retrieving Backup Files](#). Note that this requirement is not applicable to backups stored in the archive tier that consists of the Amazon S3 Glacier Instant Retrieval extent.

- If you restore a Nutanix AHV VM that has an attached volume group, the disks from the volume group will not be restored.
- Instant Recovery is not supported:
 - From backups created by Veeam Availability for Nutanix AHV (Veeam Backup for Nutanix AHV version 1.0). For those backups, you can perform only entire VM restore.
 - From backups of VMs with the ARM architecture.
 - From file-level backups created by the Kasten platform, Veeam Agent for Linux, Veeam Agent for Microsoft Windows, Veeam Agent for Unix, Veeam Agent for Mac.
- All required drivers should be installed initially before the instant recovery process. You cannot add or modify drives in the VM during Instant Recovery launch.

Recovery Verification

- [Applies only to Veeam Backup and Replication 12.1 and later deployments] [SureBackup](#) for backups created by Veeam Backup for Nutanix AHV is supported in the **Backup verification and content scan only verification** mode.

Public REST API Limitations

- You cannot change network settings of the backup appliance.
- You cannot manage Veeam Backup for Nutanix AHV notification settings.
- You cannot enable or disable SSH on the backup appliance.
- You cannot use an account with MFA enabled to obtain an authorization token.
- You cannot enable MFA for a user account.

Veeam ONE

Veeam ONE 12 supports monitoring, alerting and reporting features for VMs protected by AHV Backup appliance. For the list of supported features, see the [What's New document for Veeam ONE 12](#).

Deploying Veeam Backup for Nutanix AHV

To deploy Veeam Backup for Nutanix AHV 5.0, do the following:

1. Install Veeam Backup & Replication 12 (12.0.0.1420 or later) and configure a backup repository that will be used as a target for VM backups.
2. Download Nutanix AHV Plug-in for Veeam Backup & Replication from the [Veeam downloads page](#).
3. Install Nutanix AHV Plug-in.
4. In the Veeam Backup & Replication console, add a Nutanix AHV cluster to the backup infrastructure.
5. In the Veeam Backup & Replication console, complete a wizard to deploy a new backup appliance or connect an existing one.

For detailed instructions, see the [Deployment](#) section of the Veeam Backup for Nutanix AHV User Guide.

Upgrading Veeam Backup for Nutanix AHV

Veeam Backup for Nutanix AHV version 3.0, 3a, 4.0 or 4a can be upgraded to version 5.0.

To upgrade Veeam Backup for Nutanix AHV version 4.0, or 4a to version 5.0, upgrade Nutanix AHV Plug-in. For detailed instructions, see the [Veeam Backup for Nutanix AHV User Guide](#).

If you use Veeam Backup & Replication 11 and you want to upgrade Veeam Backup for Nutanix AHV version 3.0 or 3a to version 5.0, upgrade Veeam Backup & Replication to version 12:

1. Check the prerequisites and upgrade Veeam Backup & Replication to version 12 build 12.0.0.1420 or later. For instructions on how to do it, see [Upgrading to Veeam Backup & Replication 12](#) section of the Veeam Backup & Replication User Guide.
2. During the process of upgrading to Veeam Backup & Replication 12, the wizard will automatically upgrade Nutanix AHV Plug-in.
3. Open the Veeam Backup & Replication console. The upgrade wizard will appear and prompt you to upgrade the product components. Follow the wizard to complete the upgrade process for AHV backup infrastructure components.

Note that Veeam Availability for Nutanix AHV 1.0 and Veeam Backup for Nutanix AHV versions 2.0 and 2a are no longer supported and cannot be upgraded to Veeam Backup for Nutanix AHV 5.0. First, you must upgrade it at least to Veeam Backup for Nutanix AHV 3a.

Licensing

Veeam Backup for Nutanix AHV is licensed by the number of protected Nutanix AHV VMs. Each protected Nutanix AHV VM consumes one Veeam Universal License instance from the license scope. A Nutanix AHV VM is considered protected if it has a restore point created during the past 31 days. If a Nutanix AHV VM is protected with snapshots only, no license is consumed.

For more information, the [Licensing](#) section of the Veeam Backup for Nutanix AHV User Guide.

To renew your maintenance plan, please contact [Veeam Renewals](#).

Technical Documentation References

If you have any questions about Veeam Backup for Nutanix AHV, you may use the following resources:

- [Product web page](#)
- [Veeam Backup for Nutanix AHV documentation](#)
- [Veeam R&D Forums](#)

Technical Support

We offer email and phone technical support for customers on maintenance and during the official evaluation period. For better experience, please provide the following information when contacting Veeam Customer Support:

- Version information for the product and all infrastructure components
- Error message and/or accurate description of the problem you are having
- Log files

TIP

To export the log files, navigate to the **Configuration** page of the Nutanix AHV backup appliance web console and select **Support Information**. Switch to the **Download Logs** tab and click the **Download Logs** link.

To submit your support ticket or obtain additional information, please visit the [Veeam Customer Support Portal](#). Before contacting Veeam Customer Support, consider searching for a resolution on [Veeam R&D Forums](#).

Contacting Veeam Software

At Veeam Software, we pay close attention to comments from our customers – we make it our mission to listen to your input, and to build our products with your suggestions in mind. We encourage all customers to join [Veeam R&D Forums](#) and share their feedback directly with the R&D team.

Should you have a technical or licensing issue or question, please feel free to contact our Customer Support organization directly. We have qualified technical and customer support staff available 24/7 who will help you with any inquiry that you may have.

Customer Support

For the most up to date information about our support practices, business hours and contact details, please visit the [Veeam Customer Support Portal](#).

Company Contacts

For the most up to date information about company contacts and office locations, please visit the [Veeam Contacts Webpage](#).