

Veeam Agents managed by Veeam Backup and Replication

Introduction

As a general rule: Veeam Backup Agent Free edition is NOT supported, because the free edition does not support cloud repositories.

Managed Veeam Agents (managed by a VBR installation) or stand-alone Veeam Agents for Servers or Workstations with an already existing valid license are supported. This article guides you through how to set up your cloud backups if you use Managed Veeam Agents.

Pre-requisites

- You have a Veeam Backup and Replication installation running. Supported versions: check [here](#), under Plugins > Infrastructure
- You configured the [service provider](#) in the VBR console
- You have a valid license
- Supported OS versions: check [here](#), under Management Agents

Managed Veeam Agents

Managed Veeam Agents are Backup agents that were deployed and are managed from a Veeam Backup and Replication console. E.g. a certain infrastructure consists of Hyper-V hosts, virtual machines and physical servers / clients. Physical machines can only be backed

up by Veeam Agents. These agents have been deployed using VBR which also takes care of the backup of the virtualized infrastructure.

Job types

There are two ways to configure cloud backups. You can define:

- a **cloud job**, sending backup data of the VM to the cloud,
- or
- a **cloud copy job**, making use of the data of an already existing local job.

How to choose?

Mostly, you'll use cloud copy jobs, but there are cases where you will rather go with stand-alone cloud jobs.

All machines of the protection group are included in one job	Do you want a cloud backup of all machines of the job?	Job type
YES	YES	Cloud copy - based on the one local job
YES	NO	<i>Cloud job</i> - of the VM(s) you want to backup to the cloud
NO	YES	Cloud copy - based on each of the local job(s) of the machine(s) you want to backup to the cloud
NO	NO	Cloud copy - based on each of the local job(s) of the machine(s) you want to backup to the cloud

Configure a cloud job

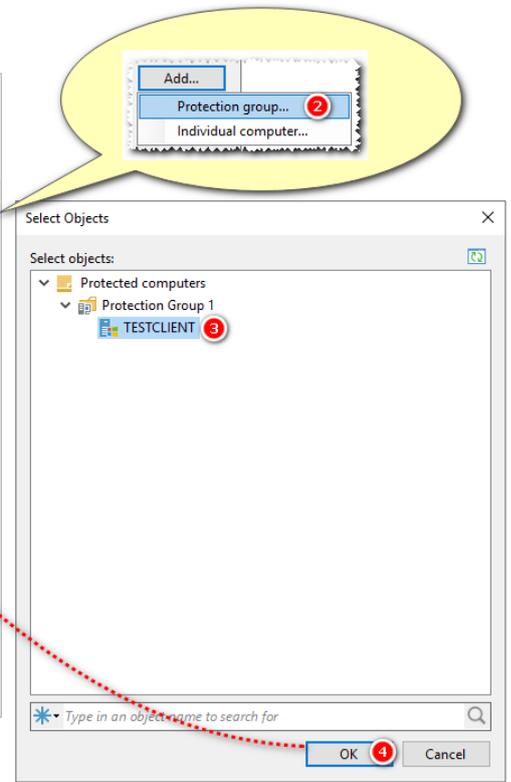
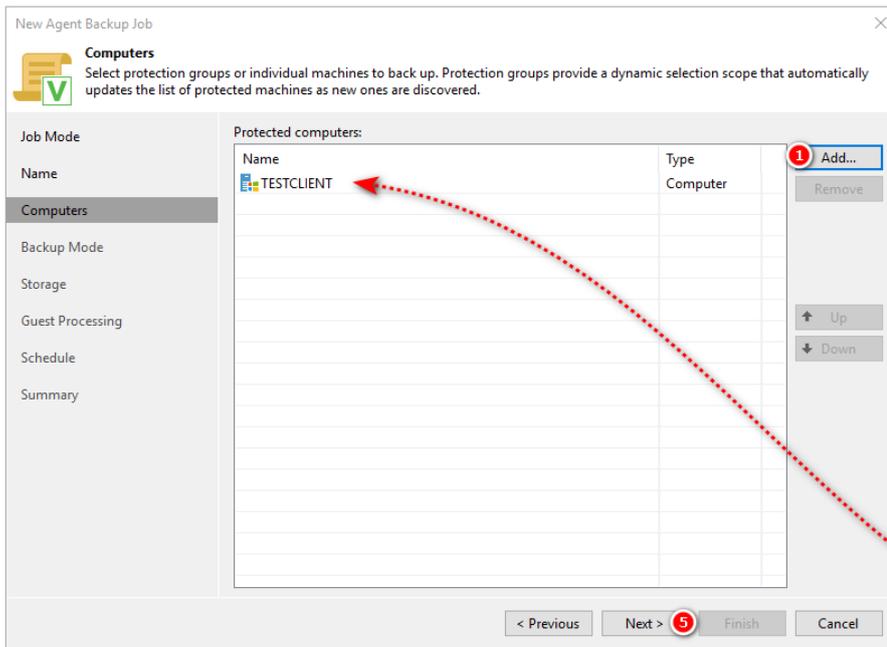
To configure a backup job of a stand-alone machine from VBR, go to the Home section and choose Backup Job. Here you can choose the type of backup you'd like to create. Choose Windows computer...



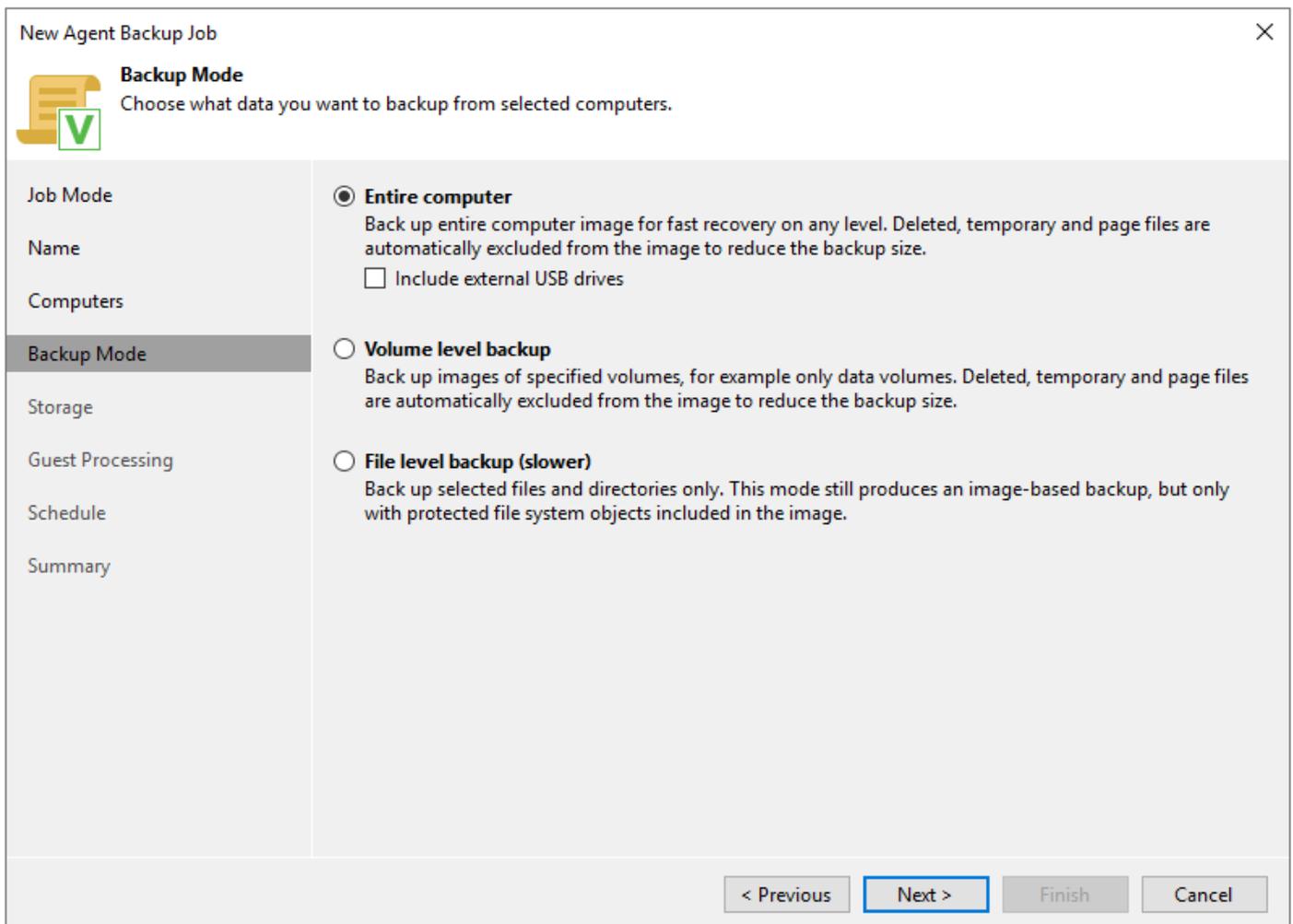
Give the job a name, it can be anything, but it's practical to choose something meaningful e.g. the name of the machine you'll backup.

A screenshot of a 'New Agent Backup Job' wizard window. The window has a title bar with a close button. On the left is a navigation pane with options: 'Job Mode', 'Name', 'Computers', 'Backup Mode', 'Storage', 'Guest Processing', 'Schedule', and 'Summary'. The 'Name' step is selected. The main area contains a 'Name:' label above a text box with 'Agent Backup Job 1' entered. Below that is a 'Description:' label above a text box containing 'Created by HYPERTEST01\Administrator at 1/12/2022 4:53 PM.'. At the bottom, there is a checkbox for 'High priority' with the text: 'Backup infrastructure resources are offered to high priority jobs first. Use this option for jobs sensitive to the start time, or jobs with strict RPO requirements.' At the very bottom are four buttons: '< Previous', 'Next >', 'Finish', and 'Cancel'.

To choose the machine(s) you want to backup, click on Add and browse the machines of the already defined protection group or add them individually one by one. Click on Add again, then on Next to go on with the wizard.



Choose the backup Mode



Choose the Cloud Repository that was automatically created when you **added the service provider**.

If you click the Advanced button, you can choose special settings, e.g. if you want to create incremental or reverse incremental backups, or how often you want to create an active full backup. More about this can be read in the Veeam knowledgebase.

https://helpcenter.veeam.com/docs/backup/vsphere/backup_methods.html?ver=100

The screenshot shows the 'New Agent Backup Job' dialog box with the 'Storage' tab selected. The dialog has a sidebar on the left with options: Job Mode, Name, Computers, Backup Mode, Storage (selected), Guest Processing, Schedule, and Summary. The main area is titled 'Storage' and contains the following elements:

- Storage**: Specify backup repository to store the backup files produced by this job and customize advanced job settings if required.
- Backup repository:** A dropdown menu showing 'CloudRepo (Cloud repository)' with a 'Map backup' button to its right.
- Free Space:** A bar chart showing '90.7 GB free of 100 GB'.
- Retention policy:** A spinner set to '7' and a dropdown set to 'days'.
- Options:**
 - Keep certain full backups longer for archival purposes (with a 'Configure...' button).
 - Configure secondary destinations for this job (with a descriptive note: 'Copy backups produced by this job to another backup repository, or tape. We recommend to make at least one copy of your backups to a different storage device that is located off-site.')
- Advanced Settings:** A note at the bottom states 'Advanced job settings include backup mode, compression and deduplication, block size, notification settings, automated post-job activity and other settings.' with an 'Advanced' button.

At the bottom of the dialog are four buttons: '< Previous', 'Next >' (highlighted), 'Finish', and 'Cancel'.

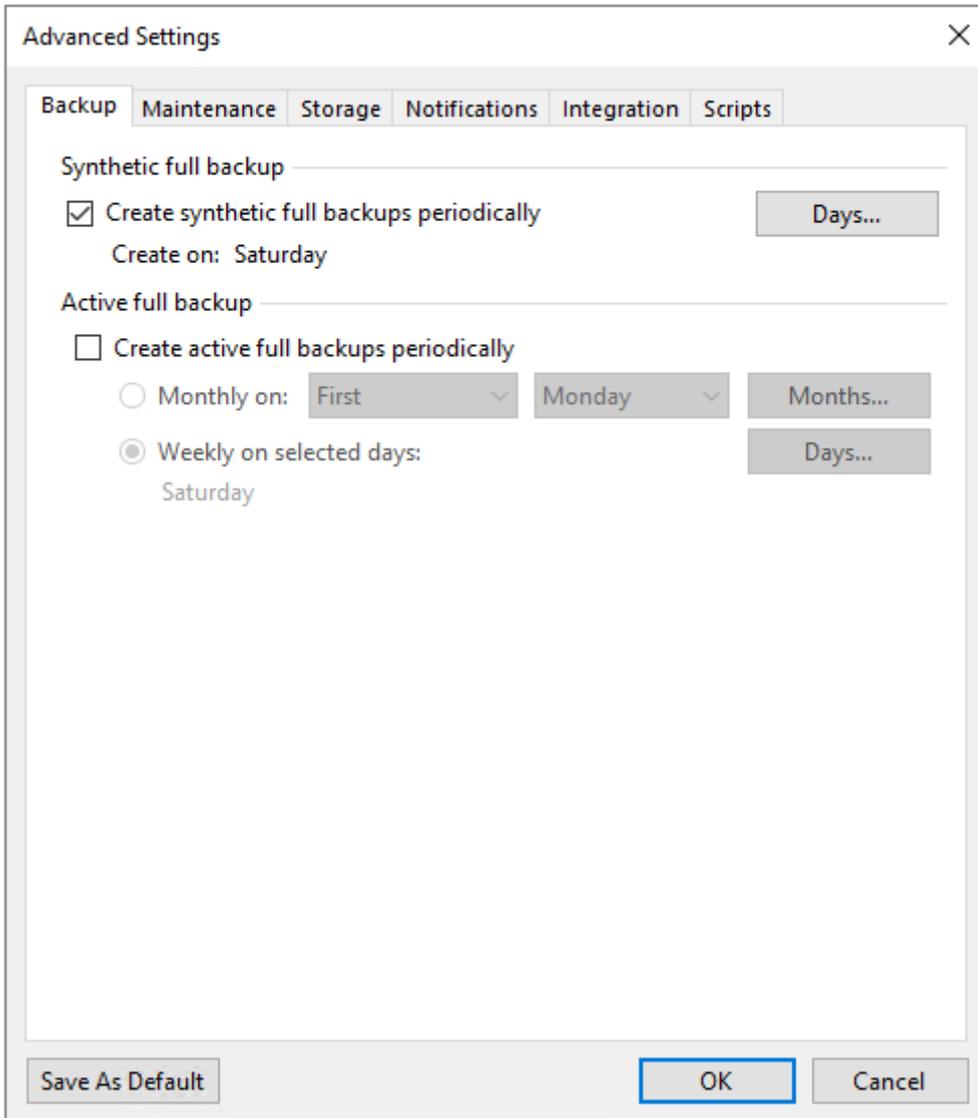
Our recommendation is that **if you specify less than 15 restore points, create synthetic full backups periodically** to shorten the restore times (in case you need one). If you need to specify **more than 15 restore points**, there's a chance full backups will fill up your repository, so it's more advisable to **go with forever forward incrementals**. (More about the different job types [here](#).)

Caution: The reverse incremental backup method is not recommended for backup jobs targeted at the cloud repository. The process of a full backup file rebuild requires higher I/O load. This may impact the backup job performance, especially in case of low bandwidth or high latency network connection between the tenant side and SP side.

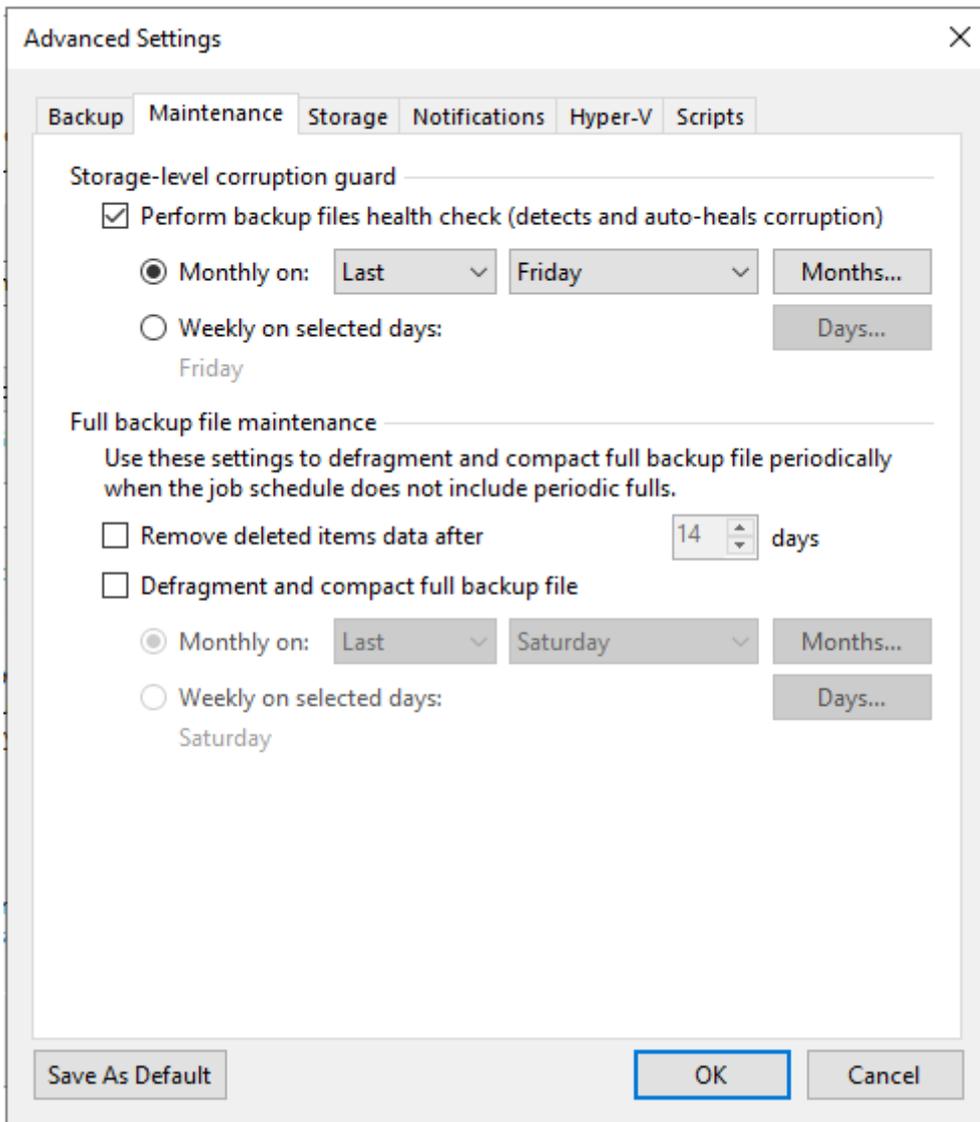
Choose the method appropriate to your scenario.

To use synthetic full backups: Click Advanced > Backup tab > Create synthetic full backups periodically > Choose the days

To go with the Forever forward incrementals method, simply remove the tick from Create synthetic full backups periodically.

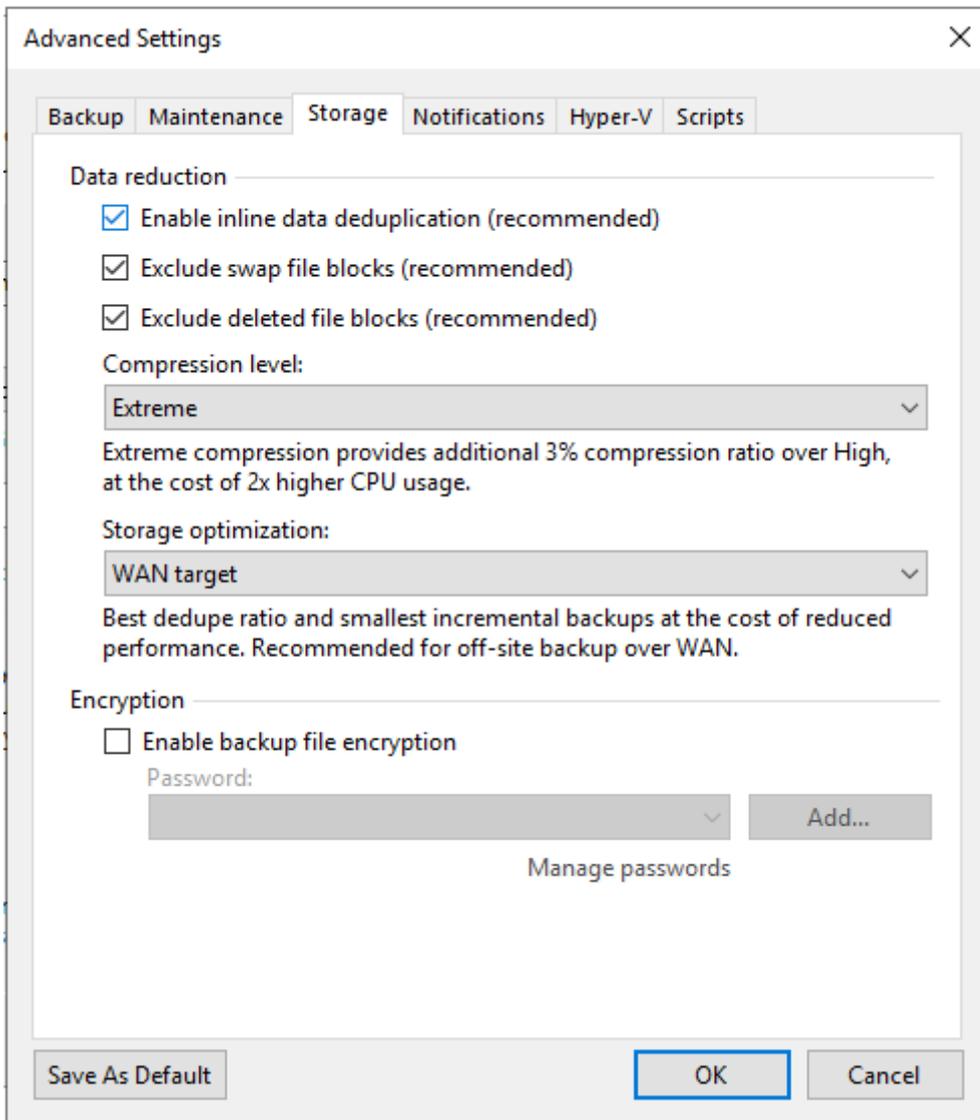


On the Maintenance tab, tick in Perform backup files health check - this will help in preventing the backup files to be corrupted.



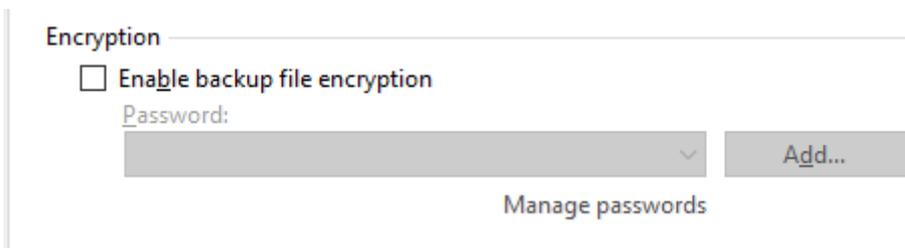
On the Storage tab, you can choose the compression level. The higher the compression level, the greater load is on the source computer's CPUs BUT the backup sizes become smaller. Choose the one appropriate to your scenario. We recommend using the Extreme settings unless your machine is short on CPU power AND you run your backups during the day.

Under storage optimization, choose the WAN storage, because the cloud repository target is accessed through the WAN.



Enable encryption (recommended) if it is required by your security policy.

Caution: store the password securely because it will be needed in case of a restore. If you lose it, we cannot recover it.

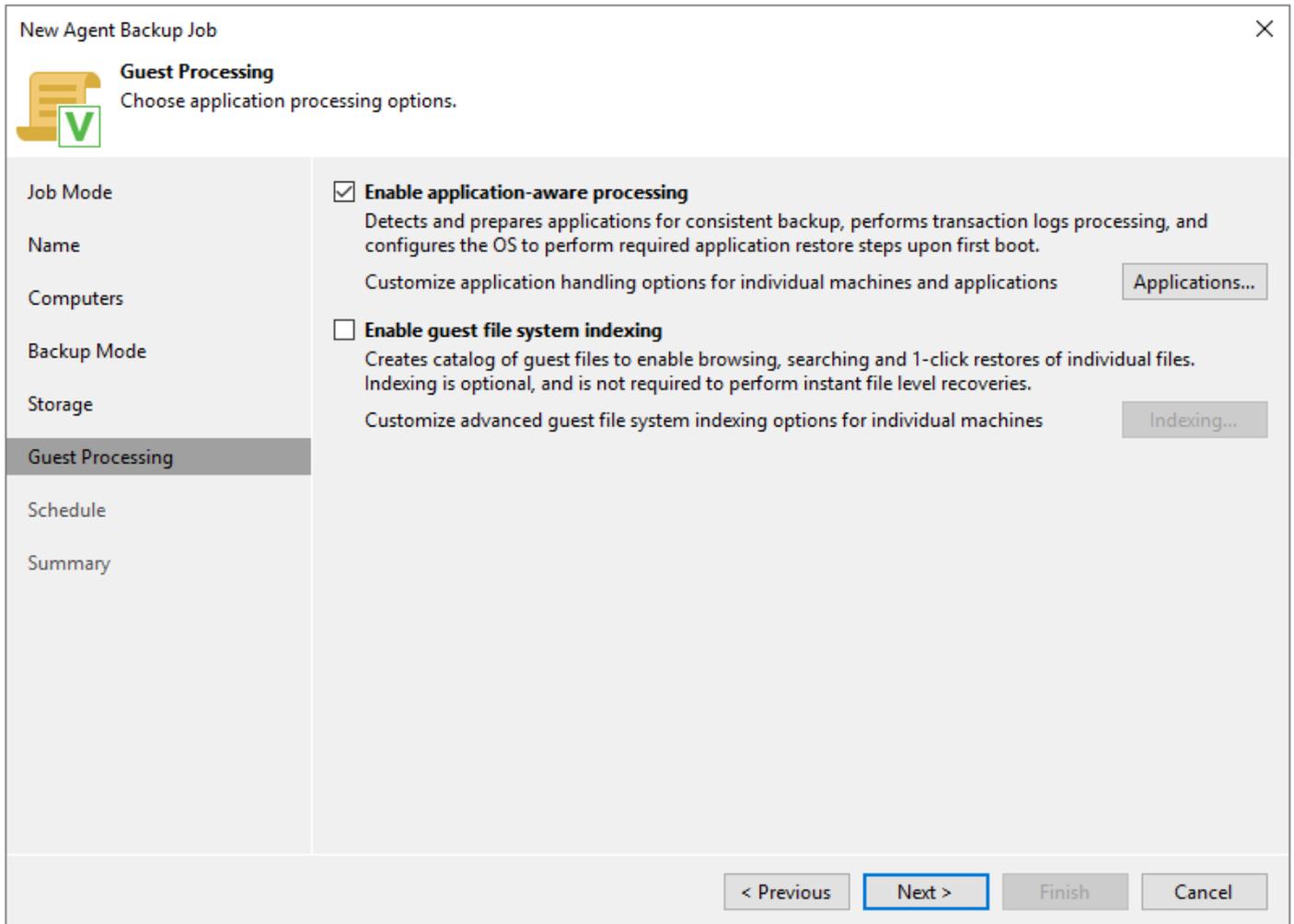


Click Apply when all the required configurations are done.

On the Guest Processing tab, you can specify if you need Veeam to manage the applications and data *inside* the virtual machine, e.g. index the file system or truncate SQL logs. More on this here: https://helpcenter.veeam.com/docs/backup/vsphere/guest_processing.html?ver=100

For a server running a SQL / Oracle database, Microsoft ActiveDirectory, Exchange or Sharepoint, you can truncate logs by enabling application-aware processing. This is the default setting for this scenario, but use it with caution.

Caution: use this option carefully. Using both Veeam SQL backup *and* native SQL backups will render both of those backups useless! More on SQL backups [here](#). Let us know if you need help in this, we are happy to assist.



The screenshot shows the 'New Agent Backup Job' dialog box with the 'Guest Processing' tab selected. The dialog has a title bar with a close button (X) and a Veeam logo. Below the title bar, there is a section for 'Guest Processing' with a sub-header 'Choose application processing options.' and a green checkmark icon. The main area is divided into two columns. The left column contains a list of tabs: 'Job Mode', 'Name', 'Computers', 'Backup Mode', 'Storage', 'Guest Processing' (selected), 'Schedule', and 'Summary'. The right column contains two options: 'Enable application-aware processing' (checked) and 'Enable guest file system indexing' (unchecked). Each option has a description and a button to customize options for individual machines. At the bottom of the dialog, there are four buttons: '< Previous', 'Next >', 'Finish', and 'Cancel'.

New Agent Backup Job [X]

Guest Processing
Choose application processing options.

Job Mode **Enable application-aware processing**
Detects and prepares applications for consistent backup, performs transaction logs processing, and configures the OS to perform required application restore steps upon first boot.
Customize application handling options for individual machines and applications [Applications...]

Name **Enable guest file system indexing**
Creates catalog of guest files to enable browsing, searching and 1-click restores of individual files. Indexing is optional, and is not required to perform instant file level recoveries.
Customize advanced guest file system indexing options for individual machines [Indexing...]

Computers

Backup Mode

Storage

Guest Processing

Schedule

Summary

[< Previous] [Next >] [Finish] [Cancel]

On the next tab, you can choose a schedule for automatic processing, if you want your backup to run periodically.

New Agent Backup Job

Schedule
Specify the scheduling options. If you do not set the schedule, the job will need to be controlled manually.

Job Mode

Name

Computers

Backup Mode

Storage

Guest Processing

Schedule

Summary

Run the job automatically

Daily at this time: 10:00 PM Everyday Days...

Monthly at this time: 10:00 PM Fourth Saturday Months...

Periodically every: 1 Hours Schedule...

After this job: AppProcTest (Created by HYPERTEST01\Administrator at 5/20/2021 10:16 A)

Automatic retry

Retry failed items processing: 3 times

Wait before each retry attempt for: 10 minutes

Backup window

Terminate job if it exceeds allowed backup window Window...

If the job does not complete within allocated backup window, it will be terminated to prevent snapshot commit during production hours.

< Previous Apply Finish Cancel

If you need to use a backup window i.e. the backups can run during specific times e.g. only at night, tick in Terminate the job if it exceeds allowed backup window. Note that a job terminated by the backup window will be considered failed, and the restore point won't be usable. As an alternate option to spare resources, use **Network Throttling**.

Backup window

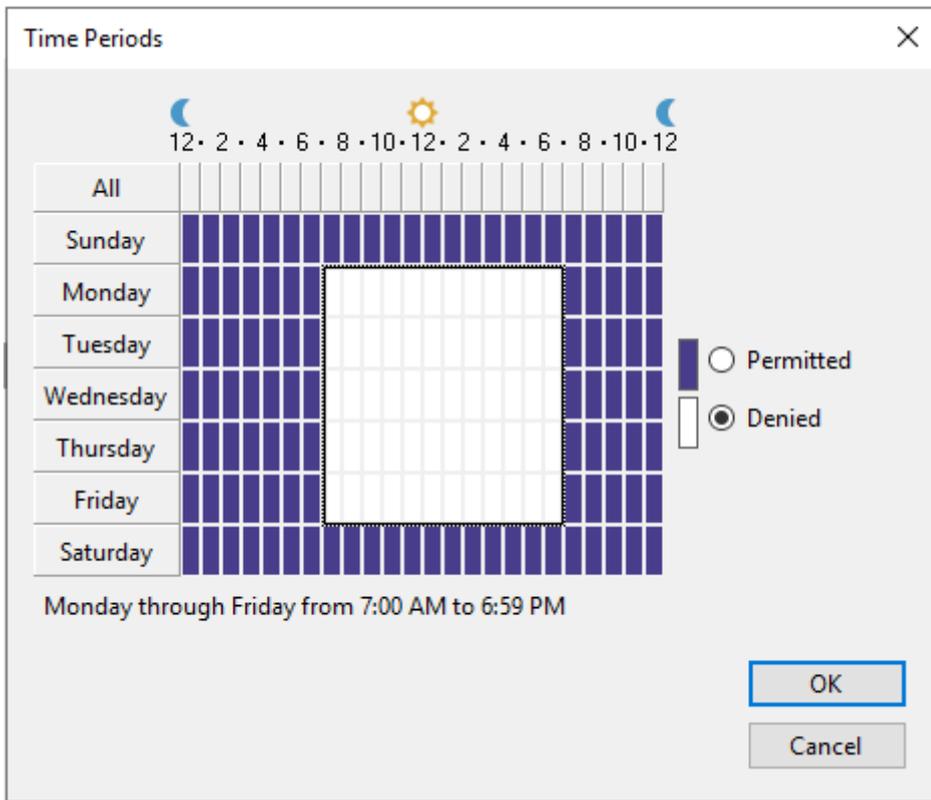
Terminate job if it exceeds allowed backup window Window...

If the job does not complete within allocated backup window, it will be terminated to prevent snapshot commit during production hours.

Click on Window...

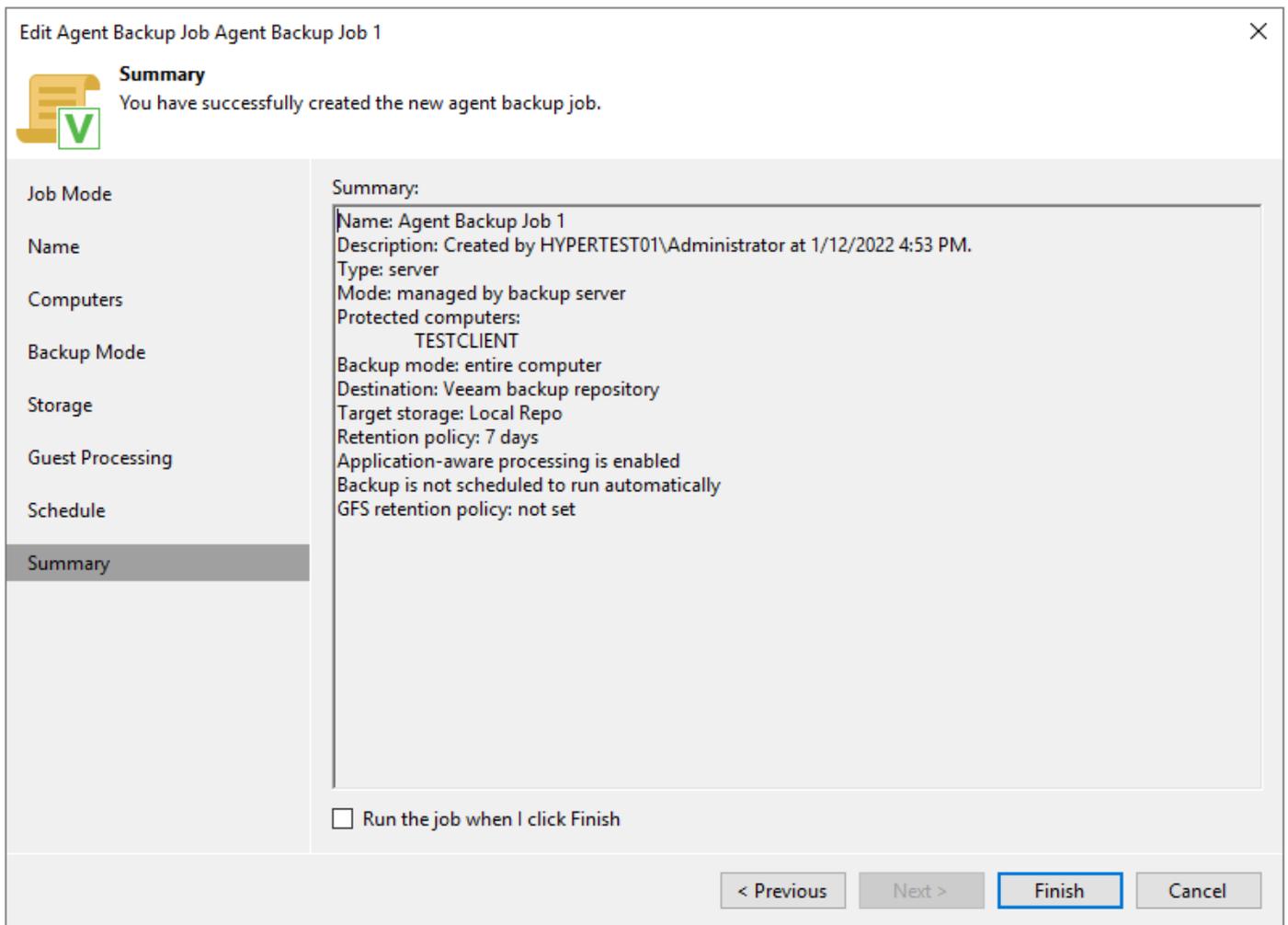
Mark the times when you don't want the job to run. If the small squares are grayed out, it means the job won't run during those times.

Click OK



Click Next.

On the Summary tab, review your configuration and click Finish to finalize the backup job settings. Optionally, you may tick in the “Run this job when I click Finish”, and the job will start right away.

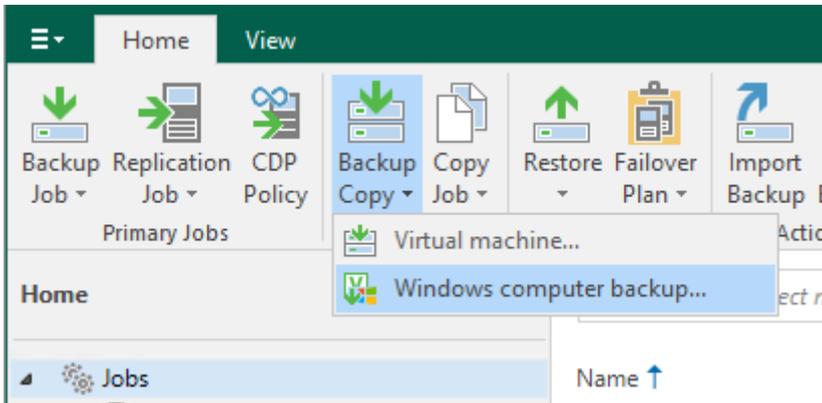


Create a backup copy job

Backup copy jobs use the data of an already existing local backup file, basically the local backup data of a computer is copied into the cloud repository. Consequently, to use this method, you need an already existing local job configured in the VBR console.

To configure a backup copy, do the following.

Go to Home > Backup Copy > Windows computer backup...



Give the job a name, and choose the mode. *Immediate* to copy all local restore points to the cloud (whenever a new restore point appears, the backup copy will also run), *Periodic* copy if you want to copy only the latest restore point.

New Backup Copy Job

Job
Backup copy job efficiently creates local and remote copies of your backups, making it easy to maintain multiple copies of your data. Type in a name and description for the job, and specify backup copy interval.

Job

Objects

Target

Data Transfer

Schedule

Summary

Name:
Backup Agent Copy Job

Description:
Created by HYPERTEST01\Administrator at 1/12/2022 5:02 PM.

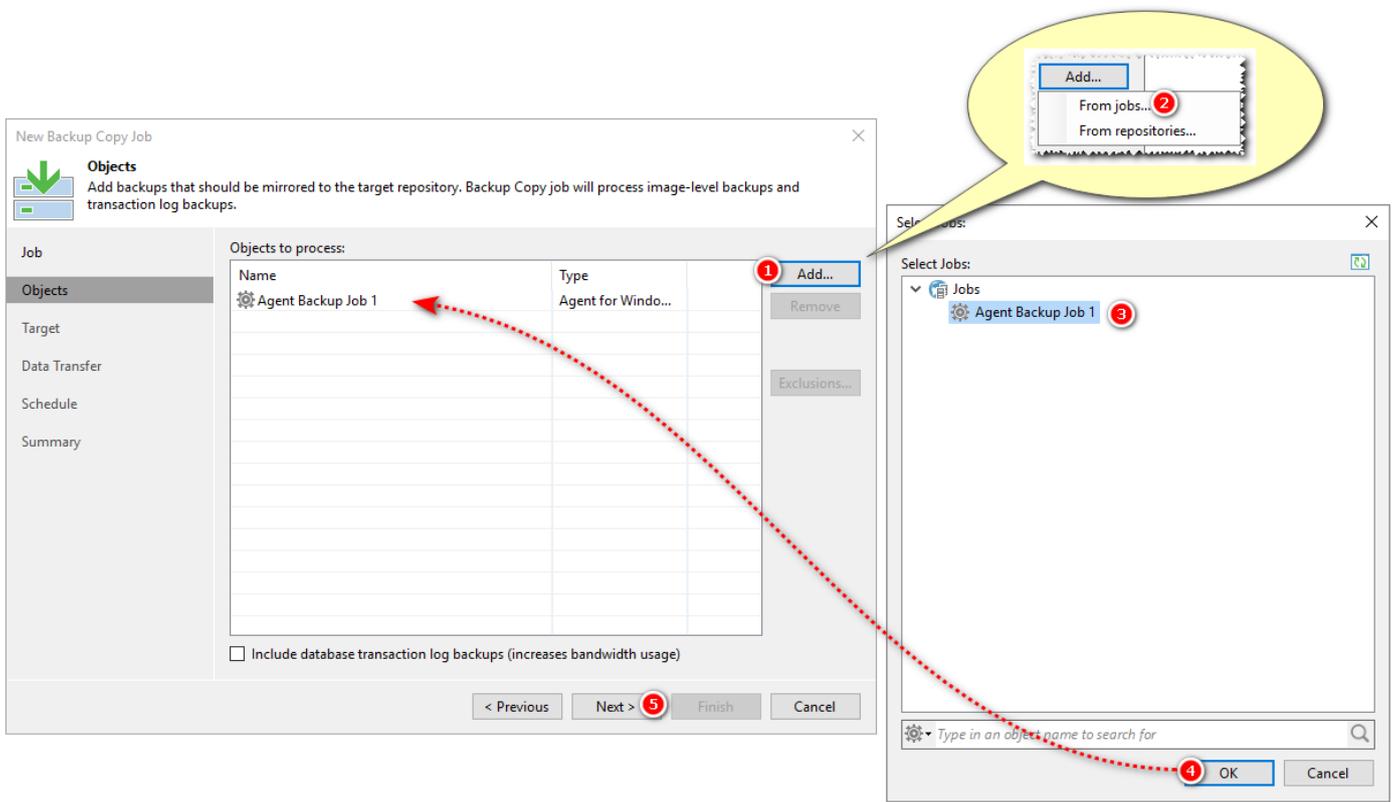
Copy mode:

Immediate copy (mirroring)
Copies every restore point as soon as it appears in the primary backup repository. This mode will copy all backups created by selected backup jobs, including transaction log backups.

Periodic copy (pruning)
Periodically copies the latest available restore point only. This mode also allows for selecting which backups to process, enabling you to further reduce bandwidth usage.

< Previous **Next >** Finish Cancel

As an object, choose the already existing backup job to start from.



Choose the cloud repository. The cloud repository was automatically added when you configured the **service provider**.

New Backup Copy Job ✕

 **Target**
Specify the target backup repository, number of recent restore points to keep, and the retention policy for full backups. You can use map backup functionality to seed backup files.

Job

Objects

Target

Data Transfer

Schedule

Summary

Backup repository:
CloudRepo (Cloud repository) ▼
90.7 GB free of 100 GB Map backup

Retention policy: 7 ▼ days ▼

Keep certain full backups longer for archival purposes Configure...

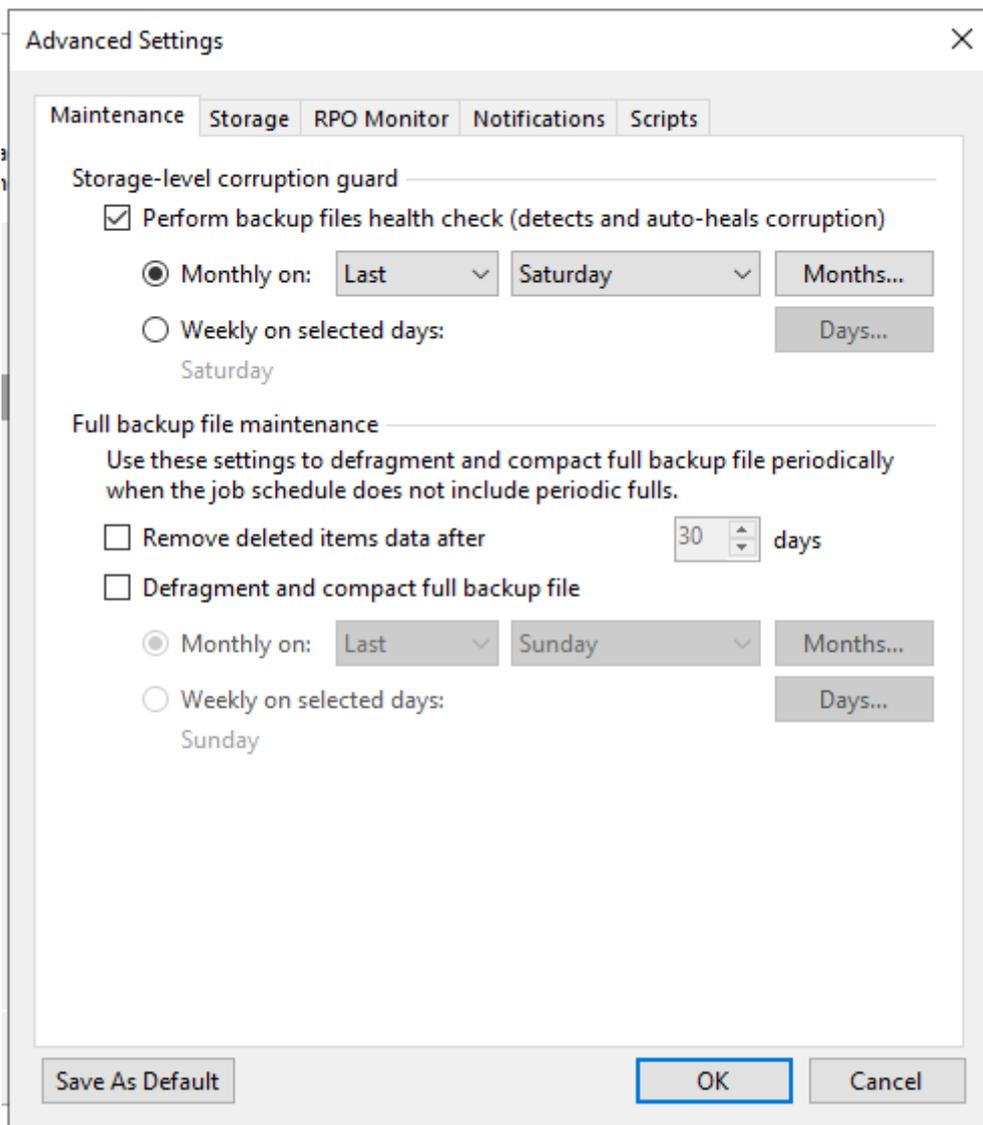
GFS retention policy is not configured

Advanced settings include health check and compact schedule, notifications settings, and automated post-job activity options. ⚙️ Advanced

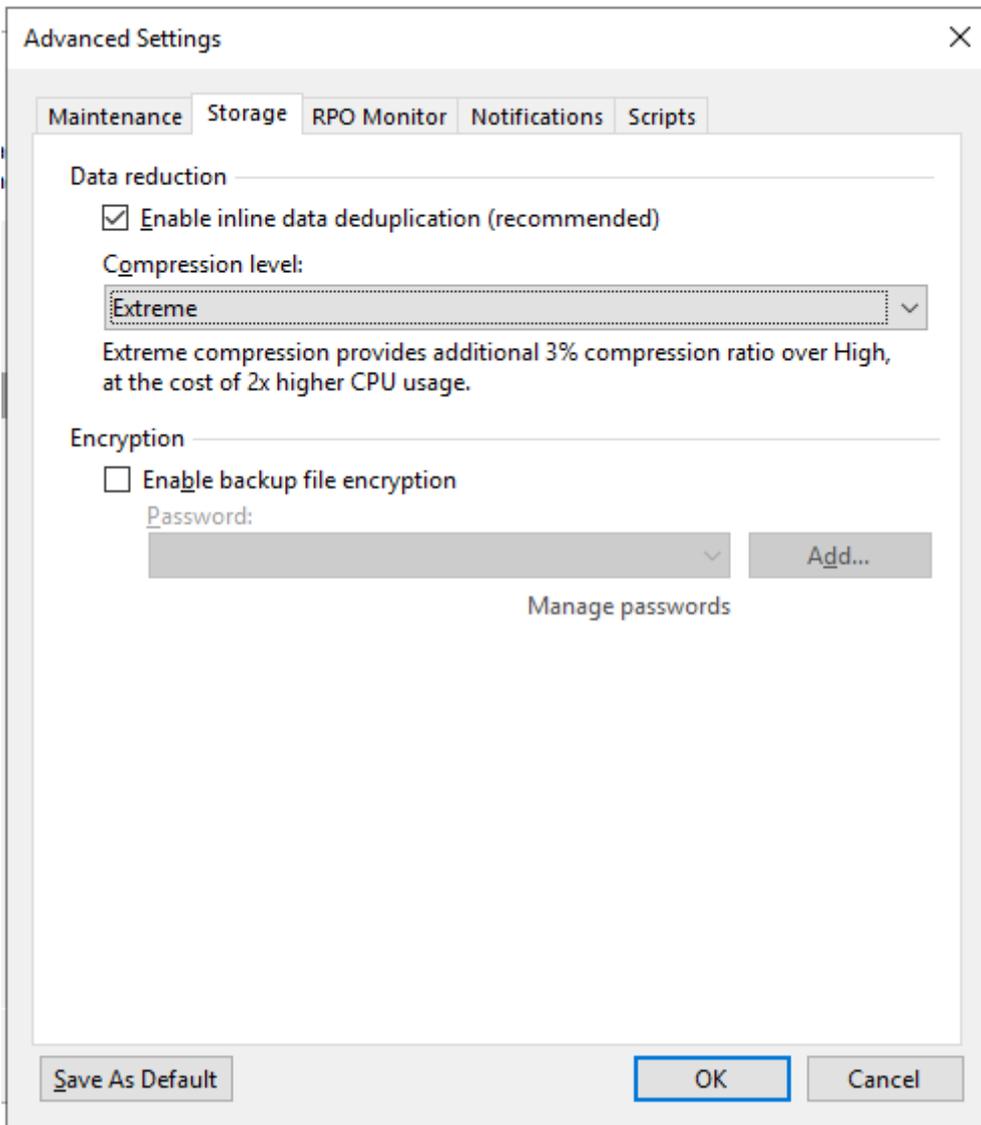
< Previous Next > Finish Cancel

Click the Advanced button to set some extra configuration.

On the Maintenance, tab tick in Perform backup files health check - this will help in preventing the backup files to be corrupted.

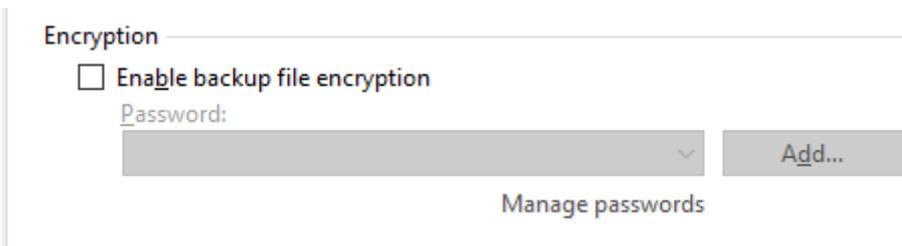


On the Storage tab, you can choose the compression level. The higher the compression level, the greater load is on the source computer's CPUs BUT the backup sizes become smaller. Choose the one appropriate to your scenario ([help here](#)) - or if you're unsure, leave it on Auto to let Veeam decide.



Enable encryption (recommended), if it is required by your security policy.

Caution: store the password securely because it will be needed in case of a restore. If you lose it, we cannot recover it.



Click Apply when all the required configurations are done.

New Backup Copy Job ✕

 **Data Transfer**
Choose how object data should be transferred from source to target backup repository.

Job

Objects

Target

Data Transfer

Schedule

Summary

Direct
Object data will be sent directly from source to target repository. This mode is recommended for copying backups on-site, and off-site over a fast connection.

Through built-in WAN accelerators
Object data will be sent to target repository through WAN accelerators that must be deployed in both source and target sites. This mode provides for significant bandwidth savings.

Source WAN accelerator:

Target WAN accelerator:

On the Schedule tab, you can choose Continuously so that the job is waiting for any changes in the “mother” backup job. In this case, the cloud copy might run into your users normal working hours. If you experience that the backup hinders performance, choose a backup window.

New Backup Copy Job ✕

Schedule
Specify when this job is allowed to transfer data over the network. Backup copy jobs run continuously, starting data transfers according to copy interval and/or as the new object restore points appear.

Job
Objects
Target
Data Transfer
Schedule
Summary

This job can transfer data:

Any time (continuously)

During the following time periods only:

12 • 2 • 4 • 6 • 8 • 10 • 12 • 2 • 4 • 6 • 8 • 10 • 12

All	12	2	4	6	8	10	12	2	4	6	8	10	12
Sunday	█	█	█	█	█	█	█	█	█	█	█	█	█
Monday	█	█	█	█	█	█	█	█	█	█	█	█	█
Tuesday	█	█	█	█	█	█	█	█	█	█	█	█	█
Wednesday	█	█	█	█	█	█	█	█	█	█	█	█	█
Thursday	█	█	█	█	█	█	█	█	█	█	█	█	█
Friday	█	█	█	█	█	█	█	█	█	█	█	█	█
Saturday	█	█	█	█	█	█	█	█	█	█	█	█	█

Enable
 Disable

Monday through Friday from 7:00 AM to 7:59 PM

< Previous **Apply** Finish Cancel

Click Apply > Finish