



Veeam Data Platform: Backup & Replication Onboarding

Tagesordnung

1. Einführung
2. Architektur & Kernkomponenten
3. Erweiterte Funktionen und optionale Komponenten
4. Allgemeine Produktkonfiguration
5. Job-Konzept & Konfiguration
6. Wiederherstellungs-Fähigkeiten
7. Sicherheit
8. Tipps & Tricks
9. Zusätzliche Ressourcen

Abschnitt 01

Einführung

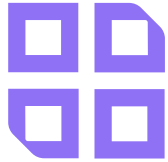
Kernfunktionen, unterstützte Plattformen, Lizenzierung

Veeam Data Platform

	Sichere Grundlage			Cyber-Resilienz					Enterprise-Resilienz		
	Zero Trust Daten Resilienz	KI-Anleitung	Gefahren erkennen und identifizieren		Sicherheit und Beobachtbarkeit		GenAI Einblicke		Wiederherstellungsorchestrierung und Compliance		Bedrohungsbeurteilung
	Datenschutz & Verifizierte Wiederherstellung	Unterstützung auf Abruf	KI-gestützte Malware-Erkennung	IoC-Tool-Scannen	Sicherheitsintegrationen	Analysen, Entdeckung & Berichte	Bedrohung-Gesundheitszentrum	Trends & Decision Support	Orchestrierte Wiederherstellung & Validierung	GRC-Audit-Dokumentation	Proaktive Bedrohungsbewertung
Foundation	✓	✓	✓	—	—	—	—	—	—	—	—
Advanced	✓	✓	✓	✓	✓	✓	✓	✓	—	—	—
Premium	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	<div><div>✓</div><div>✓</div><div>✓</div><div>✓</div></div> <div><div>Veeam Backup & Replication</div><div>Veeam ONE</div><div>Veeam Recovery Orchestrator</div><div>Coveware Recon Scanner</div></div>			<div><div><div>+</div><div><div>veeam</div><div>Cyber Secure</div></div></div><div><div><div>• Coveware Incident-Response-Abonnement mit 15-minütiger SLA</div><div>• Bis zu \$5M Ransomware-Garantie mit Veeam Technical Account Manager</div><div>• 24/7/365 SWAT-Team und dedizierter Support-Account-Manager</div><div>• Onboarding-, Design- und Implementierungsdienstleistungen sowie vierteljährliche Sicherheitsbewertungsprüfungen</div></div></div></div>							

Unterstützte Plattformen

von Veeam Backup & Replication v13.0.1

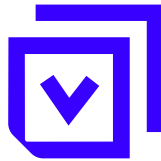


Agentenlos (virtuelle Plattformen)

- VMware vSphere 7.x – 9.0
- VMware Cloud Director 10.4 – 10.6
- Microsoft Windows Server Hyper-V 2016 – 2025
- Microsoft Azure Local
 - *Microsoft Hyper-V Server (kostenloser Hypervisor) ist unterstützt
 - *Server Core-Installationen sind **vollständig von VAW unterstützt**
- Nutanix AOS 6.8.1.6 – 7.3
- Red Hat Virtualization 4.4 SP1 (RHVM 4.5.0 oder später)
- Oracle Linux Virtualization 4.5.5 oder später
- Proxmox Virtual Environment 8.2 – 9.0
- Scale Computing HyperCore 9.4.32.218226 oder später

Unterstützte Plattformen

von Veeam Backup & Replication v13.0.1

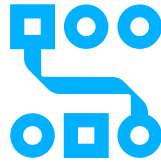


Agenten (physische oder virtuelle Arbeitslasten)

- Microsoft Windows Server 2016 – 2025
Microsoft Windows 10 – 11 25H2
*Server Core-Installationen sind unterstützt
- Mehrheit der populären Linux-Distros ([vollständige Liste](#))
- Mac OS 11 Big Sur – 26 Tahoe
- IBM AIX 7.1 – 7.3 TL3
- Oracle Solaris 10 1/13, 11.3 und 11.4
*SPARC und x86 sind unterstützt

Unterstützte Plattformen

von Veeam Backup & Replication v13.0.1



Unstrukturierte Daten

- Dateifreigaben (SMB 1.x, 2.x, 3.x und NFS 3 und 4.1)
- Enterprise NAS-Systeme:
 - NetApp FAS/AFF/ASA, FlexArray (V-Series), ONTAP Edge/Select/Cloud VSA (Versionen von 9.7 bis 9.17.1)
 - Lenovo ThinkSystem DM/DG Series (Versionen von 9.7 bis 9.17.1)
 - Fujitsu ETERNUS HX/AX (Versionen von 9.7 bis 9.17.1)
 - Dell PowerScale (OneFS Versionen von 8.1.2 bis 9.11)
 - Nutanix Files Storage (Versionen 3.8.1.3 bis 5.2)
- Objektspeicher-Repositories:
 - S3-kompatibler Objektspeicher
 - Amazon S3 Objektspeicher
 - Microsoft Azure Blob-Speicher
 - Azure Data Lake Gen2-Speicher (HNS)

Unterstützte Plattformen

von Veeam Backup & Replication v13.0.1



Datenbanken - Plugins

- MS SQL 2014 SP3 – 2022
- Oracle 11gR2 – 23ai
- SAP HANA 2.0 sowohl auf Linux als auch auf Power ([Benutzerhandbuch](#))
- MongoDB 7.0 – 8.0
- IBM db2 10.5, 11.1, 11.5, 12.1 auf Linux, Power und AIX

Andere Arbeitslasten

- EntraID
- Salesforce
- M365
- Microsoft Azure
- Amazon Web Services
- Google Cloud

Lizenzierung

Zwei Lizenzierungsmodelle

Pro Sockel

Legacy-Modell. Für bestehende Kunden noch verfügbar.

Veeam Backup & Replication wird nach der Anzahl der CPU-Sockel auf den geschützten Hosts lizenziert.

Lizenzen sind nur für Quell-Hosts erforderlich- Hosts, auf denen sich die VMs befinden, die Sie sichern oder replizieren. Zielhosts (für Replikations- und Migrationsaufträge) müssen nicht lizenziert werden.

Instanzbasiert (VUL*)

*Veeam Universal License

Zukunftssicheres Modell. Es ist flexibler und kann für verschiedene Produkte verwendet werden.

Instanzen sind Einheiten (oder Token), die Sie zum Schutz Ihrer virtuellen, physischen oder Cloud-basierten Workloads verwenden können.

Sie müssen eine Lizenzdatei mit der Gesamtzahl der Instanzen für die Workloads beschaffen, die Sie in Veeam Backup & Replication schützen möchten.

Lizenzierung

Zwei Lizenztypen

Unbefristet

Dauerhafte Lizenz. Support- und Wartungszeitraum sind in der Lizenz enthalten und werden in Monaten oder Jahren angegeben.

Unbefristete Lizenzen beinhalten einen Produktions- oder Basis-Support- und Wartungsvertrag für das erste Jahr.

Die maximale vorausbezahlte Laufzeit für Support und Maintenance bei einer unbefristeten Lizenz beträgt drei Jahre.

Abo

Lizenzen, die am Ende der Laufzeit des Abonnements ablaufen.

Die Abo-Lizenz umfasst einen Produktionssupport- und Wartungsvertrag für die gesamte Laufzeit der Lizenz.

Die Laufzeit der Abo-Lizenz beträgt normalerweise 1-3 Jahre ab dem Datum der Lizenzerteilung.

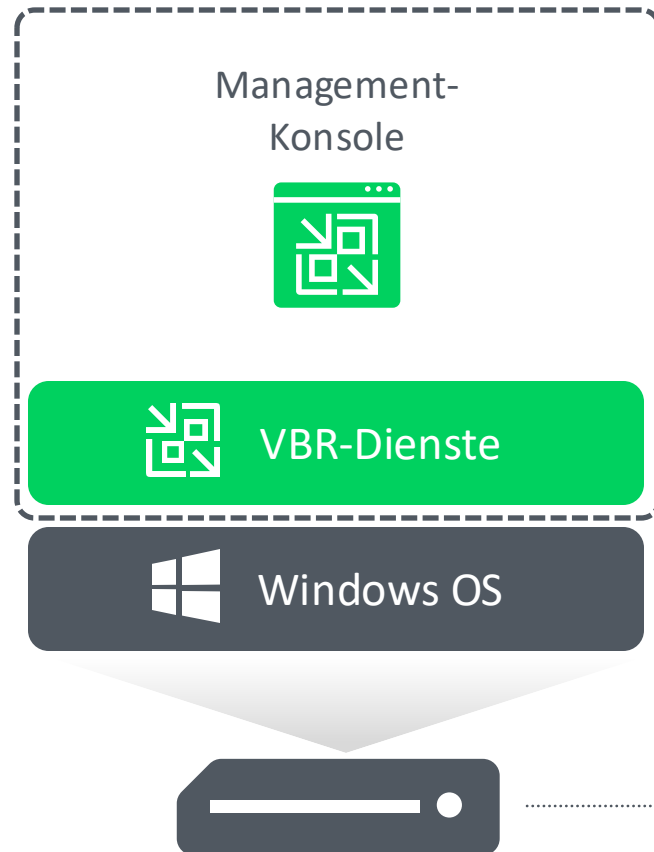
Die maximale im Voraus bezahlte Laufzeit für eine Abo-Lizenz beträgt fünf Jahre.

Veeam Software Appliance (VSA)



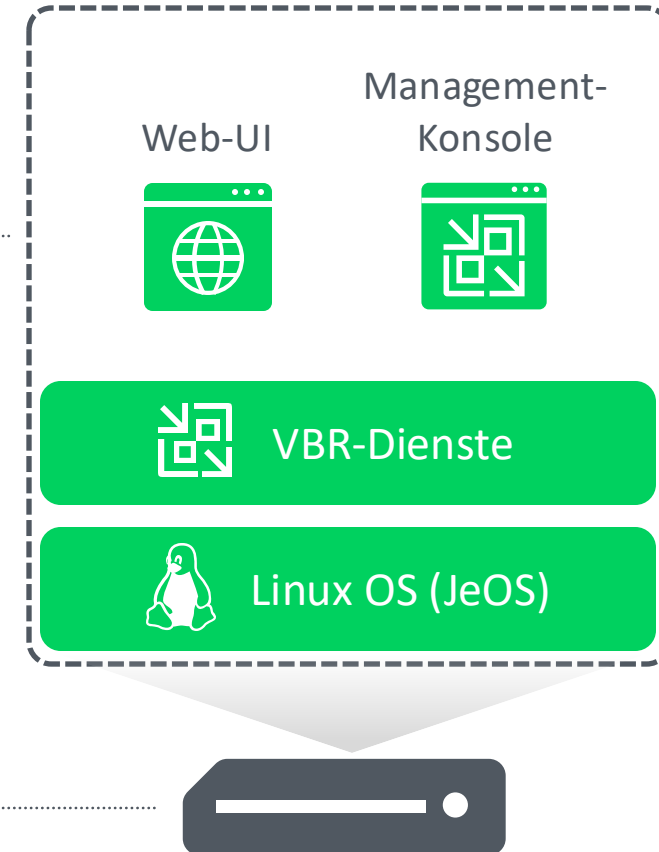
Reguläres VBR vs. VSA: Produktpaketierung & Konsolen

Reguläres VBR



Verwaltet
von Veeam

Veeam Software Appliance

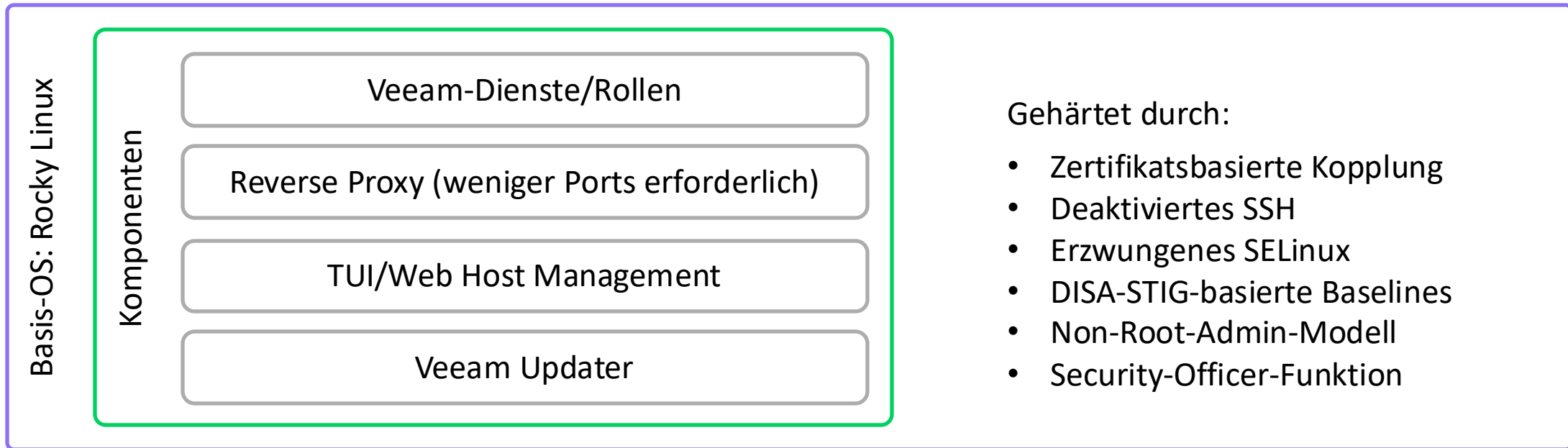


Hardware
(Server)

Just enough OS (JeOS)

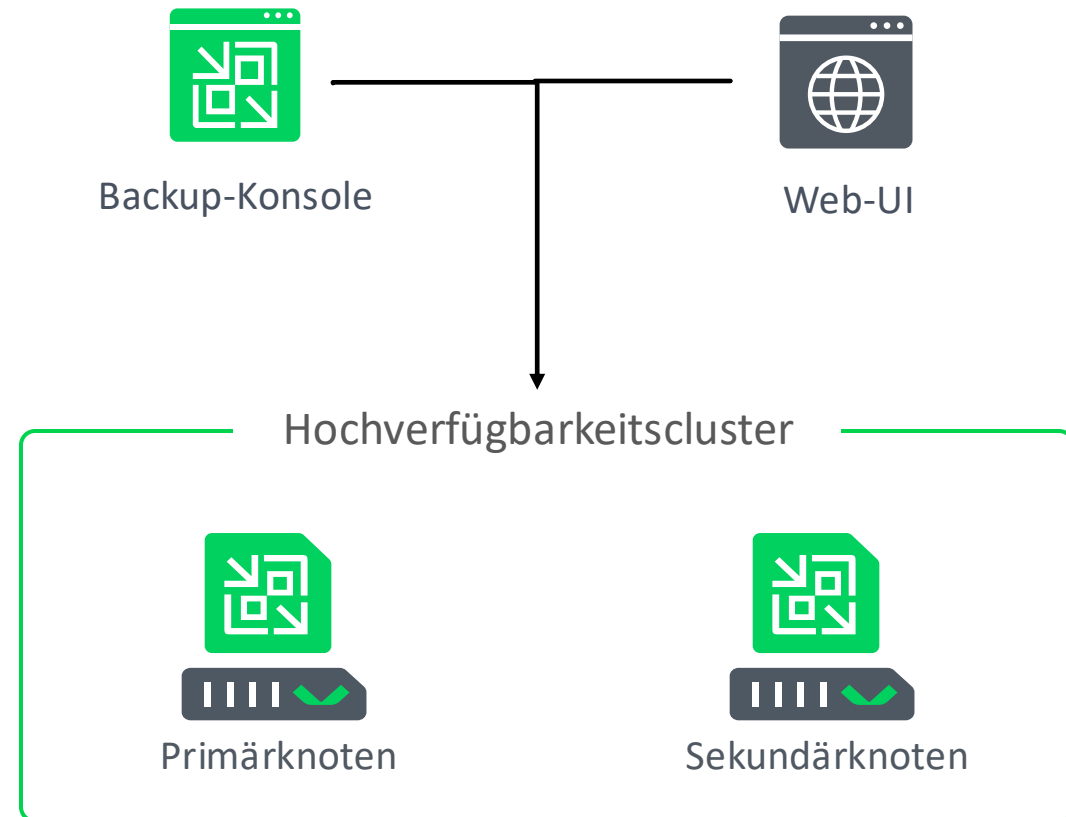
Veeam JeOS ist ein minimales, von Veeam verwaltetes Linux-Appliance-Image, das nur die **Komponenten** enthält, die für bestimmte Veeam-Infrastrukturrollen erforderlich sind.

Sowohl die Bereitstellungen der Veeam Software Appliance als auch der Veeam Infrastructure Appliance verwenden JeOS als **Betriebssystem**.



Hochverfügbarkeit

- Zwei Knoten (primär und sekundär)
- Hohe Latenz wird unterstützt
- Automatische Updates für beide Knoten
- Manuelles Failover
- Schnelle Disaster Recovery ohne Konfigurations-Wiederherstellung



Alle Veeam-Updates mit dem „Veeam Updater“ verwalten

Aktualisiert JeOS-Pakete und Veeam-Komponenten.

HTTP-Proxy wird unterstützt, wenn eine direkte Internetverbindung blockiert ist oder eine präzisere Steuerung des Datenverkehrs erforderlich ist.

The screenshot shows the Veeam Host Management Console interface. The top navigation bar is green with the 'Veeam Host Management Console' logo on the left and the user 'veeamadmin Host Admin' on the right. A left sidebar contains navigation links: Home, Overview, Host Settings, Network, Time, Security, Console Access, Users and Roles, Integration, Applications, and Updates (which is highlighted with a green circle). The main content area is titled 'Updates' and has three tabs: Updates, History, and Settings. The 'Updates' tab is active. It displays a warning icon and the text 'Updates available to download'. To the right of this text, it says 'Last checked: 1 minute ago' and provides a 'Check for updates' button. Below this, there is a section 'Select packages to install:' with a list of update packages. The first package is 'Product updates (optional)' with a checkbox that is checked. The second package is 'Veeam Backup & Replication' with an unchecked checkbox. The third package is 'Veeam Backup & Replication 13.0 version updates' with an unchecked checkbox and a size of '8.34 GB'. On the right side of the main content area, there is a 'Choose action:' section with two radio buttons: 'Install updates now' (which is selected) and 'Schedule updates installation'. Below this, there is an information box with a blue 'i' icon and text: 'It is recommended to backup your appliance configuration before starting the upgrade process. Host will be rebooted after the update if required.' At the bottom of this section is a green button labeled 'Install Updates Now'.

Veeam Host Management Console

veeamadmin
Host Admin

Home

Overview

Host Settings

Network

Time

Security

Console Access

Users and Roles

Integration

Applications

Updates

Updates

Updates History Settings

v. 12.0.0.1248

Updates available to download Last checked: 1 minute ago [Check for updates](#)

Select packages to install:

- ☒ Product updates (optional)
- ☐ Veeam Backup & Replication
- ☐ Veeam Backup & Replication 13.0 version updates
8.34 GB

Choose action:

- ☒ Install updates now
- ☐ Schedule updates installation

i It is recommended to backup your appliance configuration before starting the upgrade process.
Host will be rebooted after the update if required.

Install Updates Now

Vorteile & Nachteile

Reguläres VBR

Windows-basiert

Erfordert manuelle Schritte zur Härtung

Dauert länger zu installieren (bereits installiert, wenn wir von bestehenden Kunden sprechen)

Manuelle Updates von VBR

Es fehlen einige Funktionen

Verwaltung über eine eigenständige Management-Konsole

VUL- oder Socket-basierte Lizenzierung; Community Edition

Veeam Software Appliance

Linux-basiert

Ab Werk gehärtet

Einfacher zu installieren

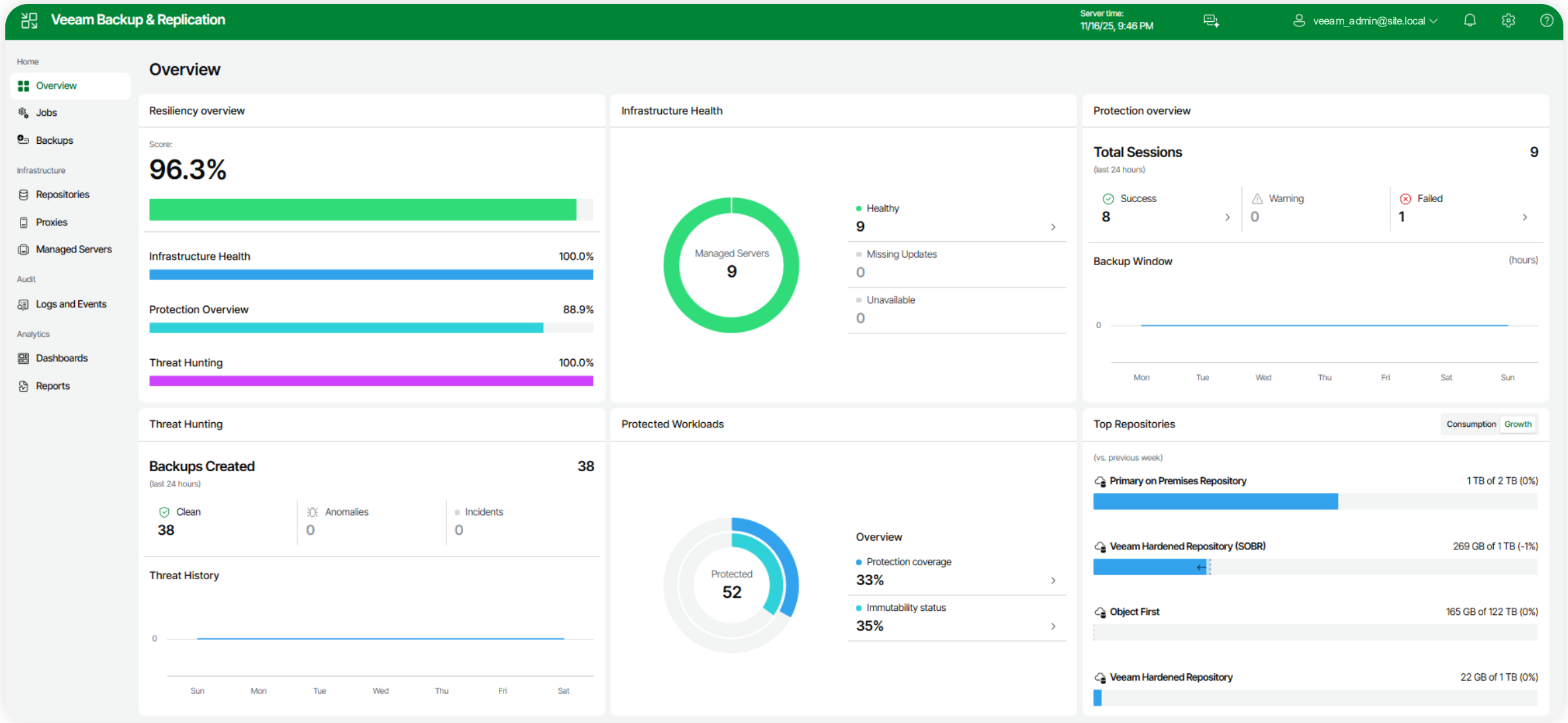
Automatische Updates des Betriebssystems und der Veeam-Dienste über den integrierten Veeam Updater

Einzigartige Funktionen wie Hochverfügbarkeit

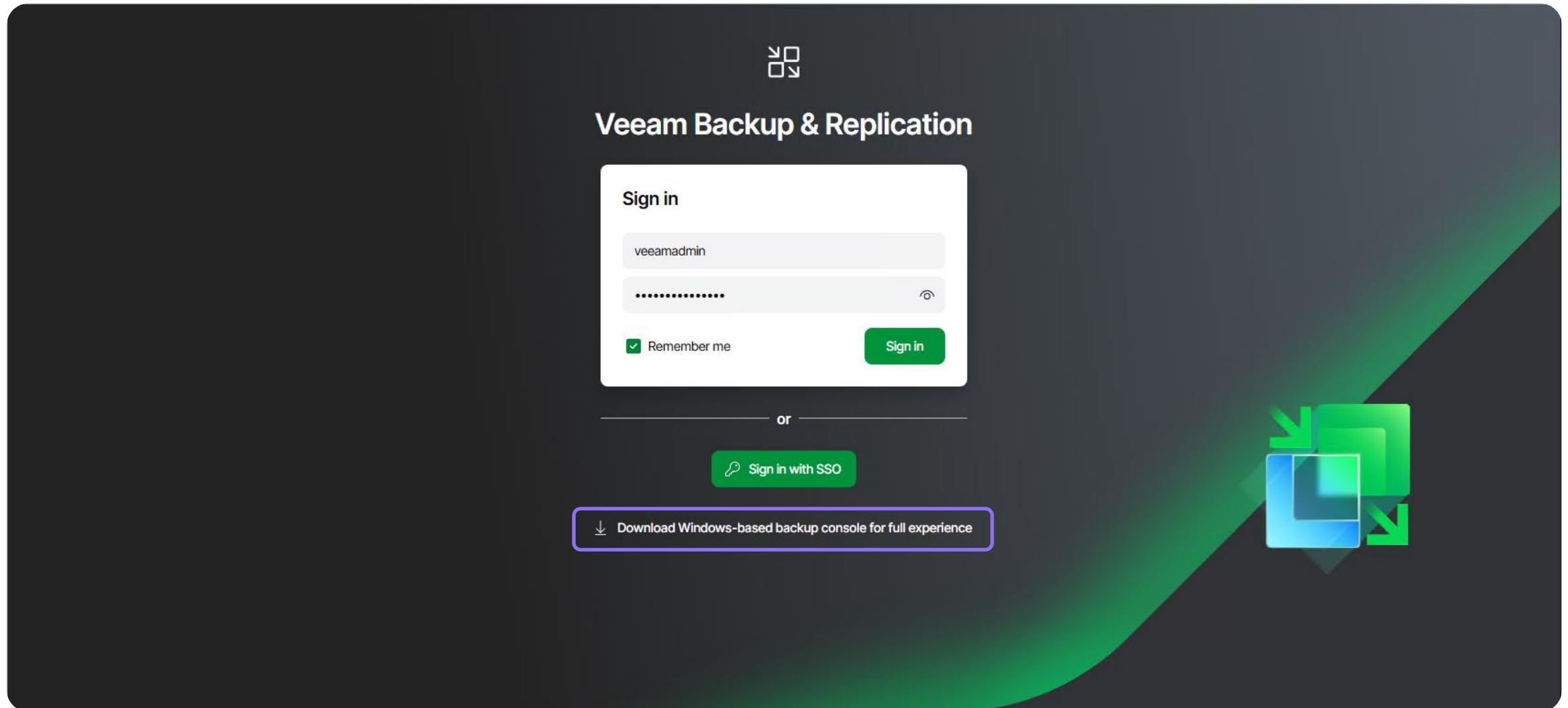
Web-UI (derzeit mit eingeschränktem Funktionsumfang) + Management-Konsole

Nur VUL; keine Community Edition

Web-UI






Management-Konsole / Web-UI (mit eingeschränktem Funktionsumfang)




Veeam Software Appliance

Host-Management-Oberfläche


 **Veeam Host Management Console**


 **veeamadmin**
Host Admin 

Home


 Overview


Host Settings

 Network


 Time


Security

 Remote Access


 Users and Roles

Integration

 Backup Infrastructure



 Updates

Support

 Logs and Services

Overview

Quick Actions

 [Change Password](#)  [Request root access](#)

Remote Access

Veeam Software Appliance Type: Veeam Backup & Replication Server

SSH Server: Disabled

Certificate thumbprints: [Show](#)

Last login: veeamadmin at 11/3/2025 9:20:25 PM

Networks

ens33:

IPv4 - Manual: 10.0.0.100
IPv6 - Disabled

Time Settings

NTP Server: 10.0.0.3

Time: 11/15/2025, 06:50 AM GMT

Veeam Software Appliance

Host-Management-Oberfläche

veeamadmin
Host Admin

Home

Overview

Host Settings

Network

Time

Security

Remote Access

Users and Roles

Integration

Backup Infrastructure

Updates

Support

Logs and Services

Users and Roles

Username

Filter (None)

+ Add

Edit

Remove

Settings

Username	Role	MFA	Description	Status	...
veeamadmin	Host Admin	Disabled	Veeam Host Management administrator.	Active	
veeamso	Security Officer	Enabled	Veeam Host Management security officer.	Active	

Architektur & Kernkomponenten

Komponentenüberblick, Installationsprozess-Überblick, Backup-Workflow, Detaillierte Aufschlüsselung der Komponenten, Design

Komponentenüberblick



Architektur & Kernkomponenten

Überblick



Installation


(Windows-basierte Anwendung)



Architektur & Kernkomponenten

Installation

Melden Sie sich an und laden Sie die aktuellste Version der .ISO-Datei von <https://my.veeam.com/my-products> herunter.



**Simplify Operations.
Fortify Security.
Accelerate Resilience.**

Register like your data depends on it.

RESERVE YOUR SPOT

Log In to Access Your Account

Access Veeam My Account or Veeam Data Cloud by selecting from the login options below:

My Account

Log in to access and manage the following:

- Support Cases (incl. Veeam Data Cloud)
- License management
- Product downloads
- Renew and add more licenses

☐ Keep me logged in [Reset My Password](#)

LOG IN

Don't have an account? [Sign Up](#)

Log in or register with your social account

Veeam Data Cloud

Log in to access your backup service:

- Veeam Data Cloud for Microsoft 365
- Veeam Data Cloud for Entra ID
- Veeam Data Cloud for Salesforce
- Veeam Data Cloud Vault and more

Product

Region

LOG IN

You will be redirected to the app Login page

Need Support? Log in to My Account

My subscription products

Veeam Software Appliance

Version: 13 [Details](#)

Download

Veeam Data Platform

Version: 13 [Details](#)

Veeam Recovery Orchestrator

Version: 13 [Details](#)

Download (18.8 GB)

Veeam ONE

Version: 13 [Details](#)

Download (3.2 GB)

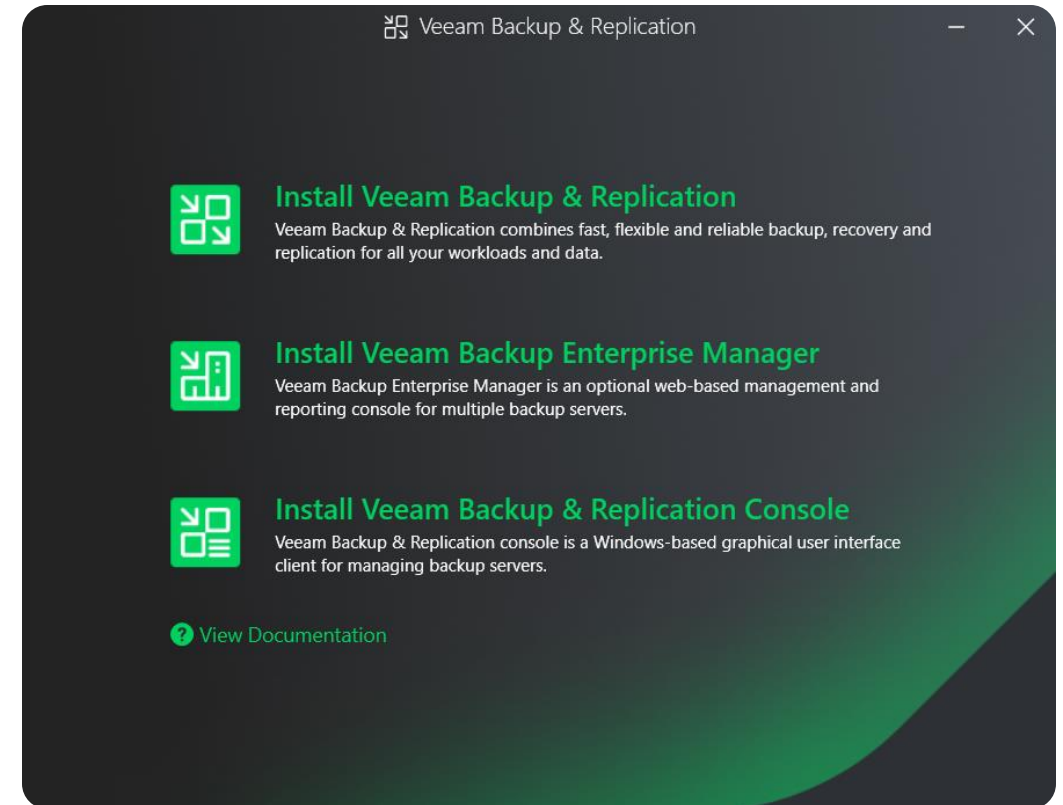
Veeam Backup & Replication

Version: 13 [Details](#)

Download (16.6 GB)

Architektur & Kernkomponenten

Installation



Architektur & Kernkomponenten


Installation

Veeam Backup & Replication


License

Provide license file for Veeam Backup & Replication.

Select license provisioning method:

 [Sign in with Veeam](#)

 |

 [Browse to local license file](#)

License details:


Community edition, 10 instances, limited functionality

☒ Update license automatically (enables usage reporting)

Download and install new license automatically when you renew or expand your contract. This requires sending the license ID, the installation ID, and workload usage counters to Veeam servers periodically. Successful usage reporting doubles the number of workloads you can exceed your installed license by.

☒ Receive proactive support (enables usage reporting)

Proactive technical support service require sharing anonymized backup infrastructure telemetry with Veeam. For more information on what is being shared, please refer to the User Guide.

 Veeam EULA prohibits using Community Edition to provide any services to third parties. In particular, you may not install, configure or manage such backup servers at your client's environment as a consultant or an MSP.

Back


Next









Cancel

Veeam Backup & Replication

System Configuration Check

System is being verified for potential installation problems.

 Setup could not automatically install required system prerequisites. Please install missing components and click "Retry" to continue.

Requirement	Status
Microsoft .NET Framework 4.7.2	 Passed
Microsoft Visual C++ 2015-2019 Redistributable	 Passed
Microsoft System CLR Types for SQL Server 2014	 Failed
Microsoft Report Viewer Redistributable 2015	 Passed
Microsoft PowerShell v5.1	 Passed
Microsoft Universal C Runtime	 Passed
Microsoft .NET Runtime 6.0.10	 Passed
Microsoft ASP.NET Core Shared Framework 6.0.10	 Passed

Back

Retry

Cancel

Architektur & Kernkomponenten

Installation

Veeam Backup & Replication

Ready to Install

Installation will begin with the following settings.

Installation folder:	C:\Program Files\Veeam\Backup and Replication
vPower cache folder:	C:\ProgramData\Veeam\Backup\IRCache
Guest catalog folder:	C:\VBRCatalog
Service account:	LOCAL SYSTEM
Database engine:	PostgreSQL
Database server:	DC-01:5432
Database name:	VeeamBackup
Catalog service port:	9393
Service port:	9392
Secure connections port:	9401
REST API service port:	9419
Check for product updates:	Automatically

Customize Settings

Back Install Cancel

Veeam Backup & Replication

Database

Choose a database engine and an instance for Veeam Backup & Replication configuration data.

Use following database engine: PostgreSQL

☒ Install new instance

☐ Use existing instance (HOSTNAME:PORT)

DC-01:5432

Database name:

VeeamBackup

Connect to PostgreSQL server using:

☒ Windows authentication credentials of the backup service account

☐ Native authentication with the following credentials:

Username: postgres

Password:

Back Next Cancel

Installation

(Veeam Software Appliance)



Veeam Software Appliance

Installation

Initial Configuration Wizard

> License
Hostname
Network
Time
Host Administrator
Security Officer
Summary

By pressing "Accept" button, you confirm that you have read and agree to the terms in each of the documents below:

- [Veeam End User License Agreement (EULA)]
- [Veeam Licensing Policy]
- [License Agreements of 3rd party components]
- [License Agreements of required software]

For a web copy, go to vee.am/legal

[Accept]

Initial Configuration Wizard

License
> Hostname
Network
Time
Host Administrator
Security Officer
Summary

Specify a desired hostname for this system.

Hostname: vbr-usa

[Prev] [Next]

Veeam Software Appliance

Installation

Initial Configuration Wizard

License

Hostname

> Network

Time

Host Administrator

Security Officer

Summary

Specify a network configuration for this system.

Network adapters:

Enable

Name	MAC Address	Static IP Address	
ens192	00:0C:29:31:11:6A	IP4	[DHCP]
ens192	00:0C:29:31:11:6A	IP4	[Static]
			[Advanced]

Assigned IP addresses:
IP4: 10.0.0.249

[Prev]

[Next]

Host Configuration Wizard

License

Hostname

Network

> Time

Host Administrator

Security Officer

Summary

Specify one or more NTP servers and the time zone.

Current time: Sat Nov 15 07:52:05 UTC 2025

[Change]

Time zone: Etc/UTC

[Add]

Available NTP servers:

server 10.0.0.1 iburst

[Delete]

[Sync]

[Prev]

[Next]

Veeam Software Appliance

Installation

Startup Wizard

License
Hostname
Network
Time
> Host Administrator
Security Officer
Summary

Create a host administrator account and configure multi-factor authentication.

Administrator:

Username: veeamadmin

Password: ***** [] Show password

[Prev]

[Next]

Configure Multi-Factor Authentication (MFA)

Current time: Sat Nov 15 07:54:24 UTC 2025

Two-factor authentication is enabled on this system.

Step 1. Open your authenticator app.

Step 2. Enter the following code into the app:

TZ5U 4HF3 1JWA AKB4 KHUG PNG6 KQ [Show QR-code]

Step 3. Enter a one-time password provided by your app.

[Ok] [Cancel]

Veeam Software Appliance

Installation

Create a Security Officer account for this system.

License

Hostname

Network

Time

Host Administrator

> Security Officer

Summary

Security Officer credentials for first logon:

Username: veeamso

Password:

☐ Show password

Security Officer approves sensitive actions of host admins (Zero Trust concept).

This role is usually assigned to a member of an Information Security team.

☐ Skip setting up Security Officer

[Prev]

[Next]

Initial Configuration Wizard

License

Hostname

Network

Time

Host Administrator

Security Officer

> Summary

The system has been configured with the following settings:

Hostname:

vbr-0sa

Network configuration:

Name: ens192

MAC Address: 00:0C:29:31:11:6A

IPv4: 10.0.0.249

IPv6: not assigned

Time configuration:

server 10.0.0.1 iburst

Administrator:

username: veeamadmin

[Prev]

[Finish]

Veeam Software Appliance

Installation

Veeam Host Management

Product name

Veeam Backup & Replication

IPv4 address

10.0.0.249

Hostname

vbr-0sa

Host management console

https://vbr-0sa:10443

Certificate thumbprint: 6B8D63990B284C0DFAEDE912ED30C9128EF0C1471B2CC6DED69FD5E92305A8FD

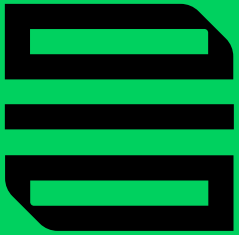
Veeam Backup & Replication web UI

https://vbr-0sa:443

Certificate thumbprint: 84C0AA0052CB11F7985CF336B6B8F9EB1045C984C69F9648F2348F36A161F425

Konfigurationsdatenbank





Konfigurationsdatenbank

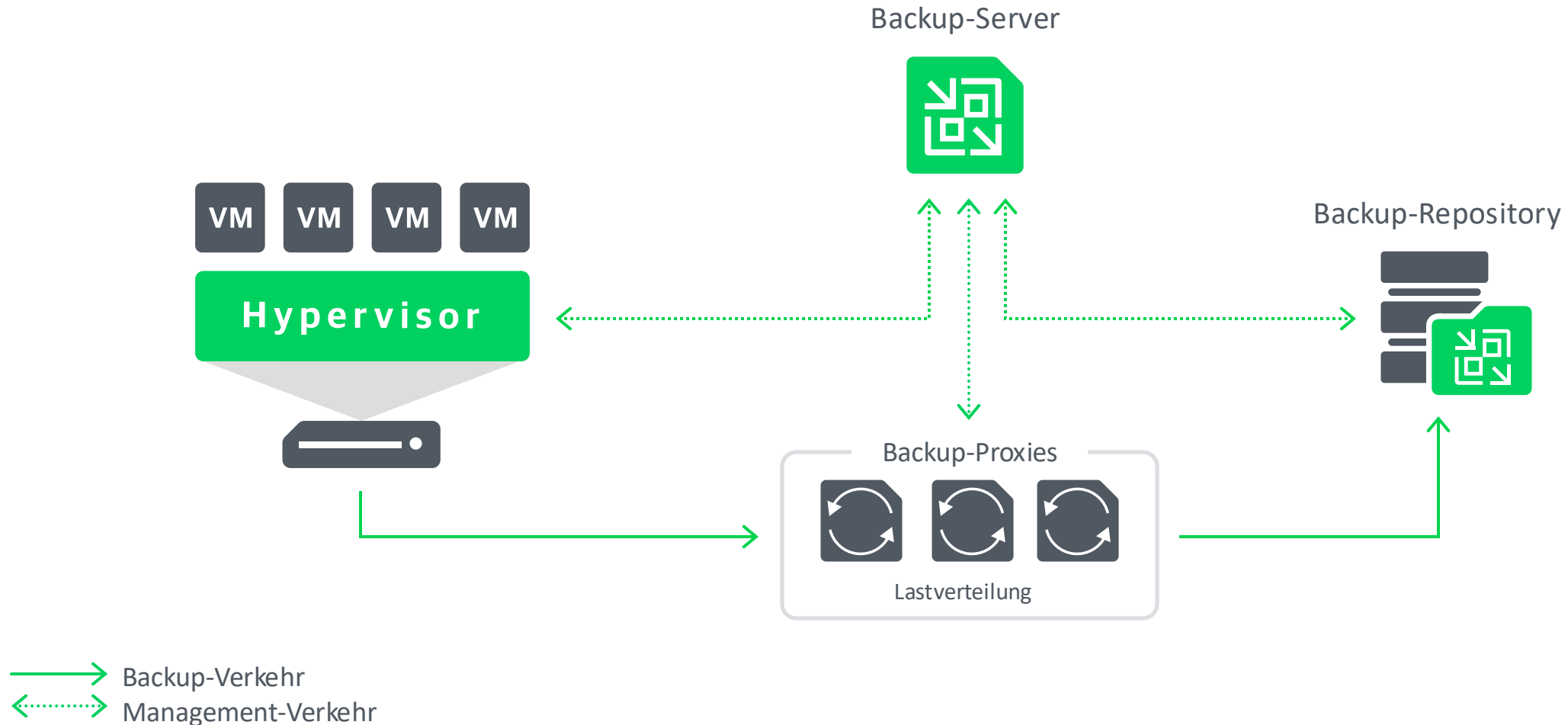
- Speichert Daten über die Backup-Infrastruktur, Jobs und Sitzungen.
- Seit Version 12 installiert der VBR-Installer standardmäßig PostgreSQL. Man kann jedoch auf Microsoft SQL umstellen.
- Die Datenbank kann von MSSQL zu PostgreSQL und umgekehrt migriert werden.
- Die DB kann entweder lokal (auf derselben Maschine wie der Backup-Server) oder remote installiert werden.
- Das Konfigurationsdatenbank-Backup ist die Methode, mit der sich VBR „selbst sichert“.
- Das DB-Backup kann auf einen anderen VBR-Server wiederhergestellt werden.



Detaillierte Aufschlüsselung der Komponenten

Architektur & Kernkomponenten

Beispiel für einen Backup-Workflow



Backup-Proxy



Architektur & Kernkomponenten

Backup Proxy

Typen

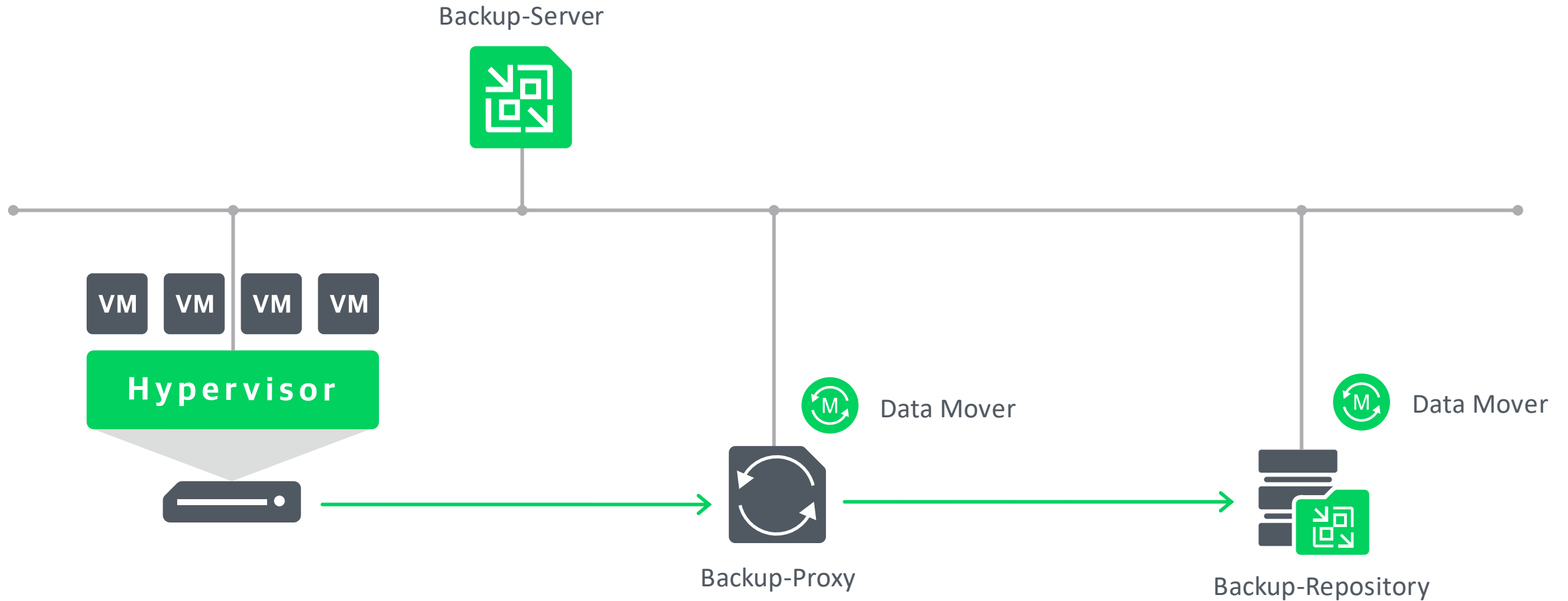
- VMware
- VMware CDP
- Hyper-V On-host
- Hyper-V Off-host
- Nutanix AHV (Worker)
- Red Hat Virtualization (Appliance)
- Proxmox (Worker)
- Scale Computing HyperCore (Worker)
- Allgemeine Zwecke (NAS, Dateifreigaben, physische Server, Off-Host-Sicherung)

Aufgaben

- Abrufen von VM-Daten aus dem Produktionsspeicher
- Komprimierung
- Deduplizierung
- Verschlüsselung
- Übertragung von Daten an das Backup-Repository (Backup) oder einen anderen Backup-Proxy (Replikation)

Architektur & Kernkomponenten

Backup Proxy





Backup Proxy (VMware)

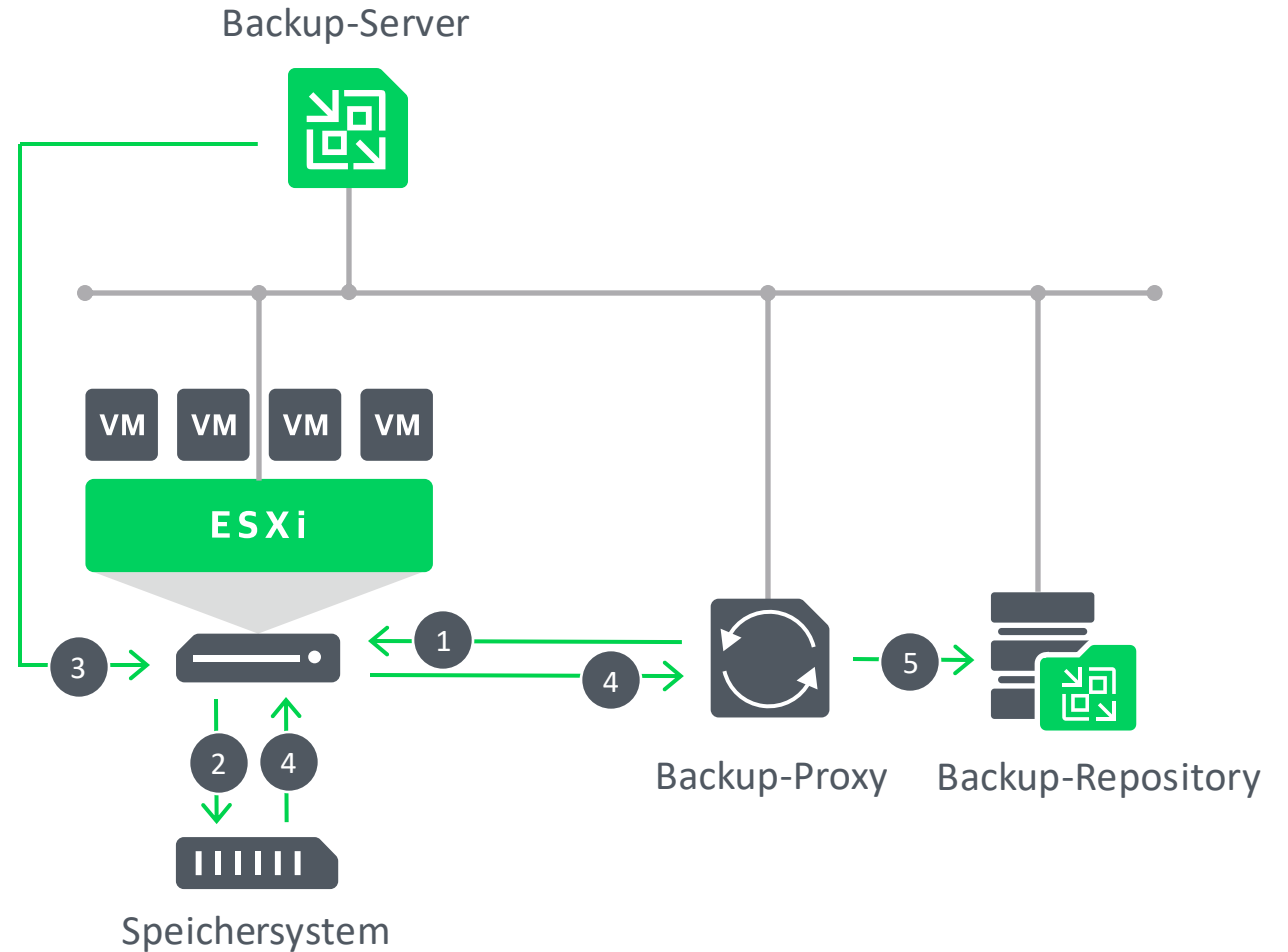
Architektur & Kernkomponenten

VMware Backup Proxy-Transportmodi

Netzwerk-Modus

In diesem Modus werden die Daten über den ESXi-Host über LAN mit dem Network Block Device-Protokoll (NBD) abgerufen.

1. Der Proxy sendet eine Anfrage an den ESXi-Host, um die VM auf dem Datenspeicher zu finden.
2. Der ESXi-Host lokalisiert die VM.
3. VBR weist VMware vSphere an, einen Snapshot zu erstellen.
4. Der ESXi-Host kopiert VM-Datenblöcke aus dem Quellspeicher und sendet sie über LAN an den Proxy.
5. Der Proxy sendet die Daten an das Repository.



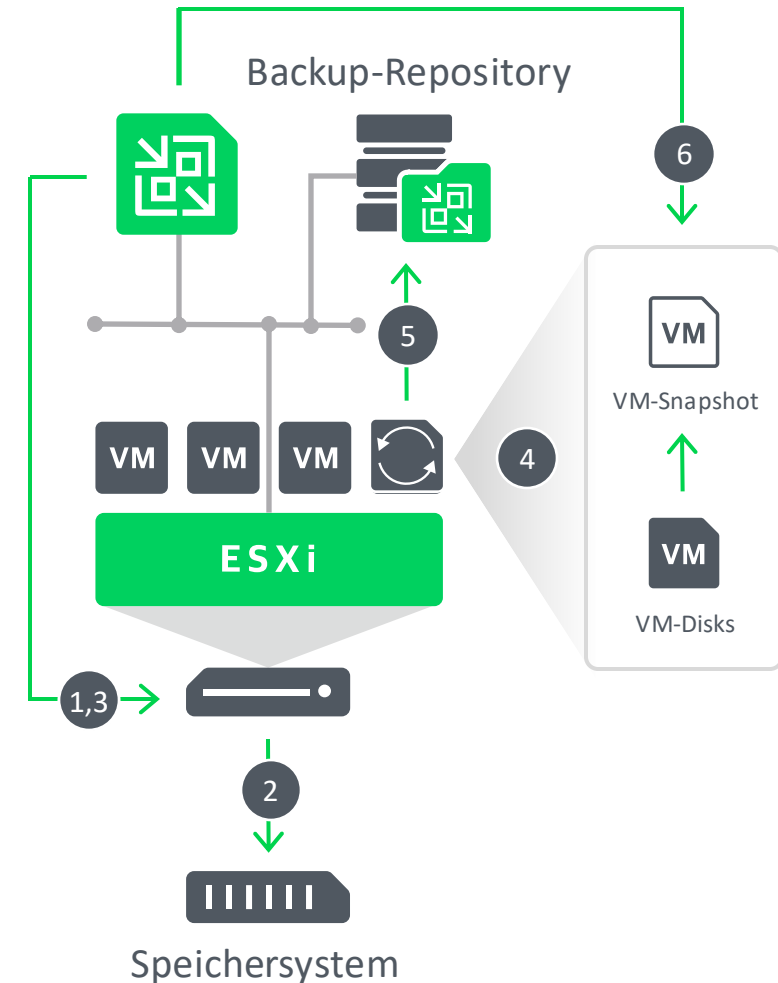
Architektur & Kernkomponenten

VMware Backup Proxy-Transportmodi

Virtual Appliance

Dieser Modus bietet eine bessere Leistung als der Netzwerk-Modus.

1. Der Backup-Server sendet eine Anfrage an den ESXi-Host, um die VM auf dem Datenspeicher zu finden.
2. Der ESXi-Host findet die VM.
3. VBR veranlasst VMware vSphere, einen VM-Snapshot zu erstellen.
4. Die VM-Festplatten werden (per Hot-Add) an den Proxy angehängt.
5. VBR liest Daten direkt von den an den Proxy angeschlossenen Festplatten.
6. Wenn die VM-Verarbeitung abgeschlossen ist, werden die VM-Festplatten vom Proxy abgetrennt und der VM-Snapshot wird gelöscht.



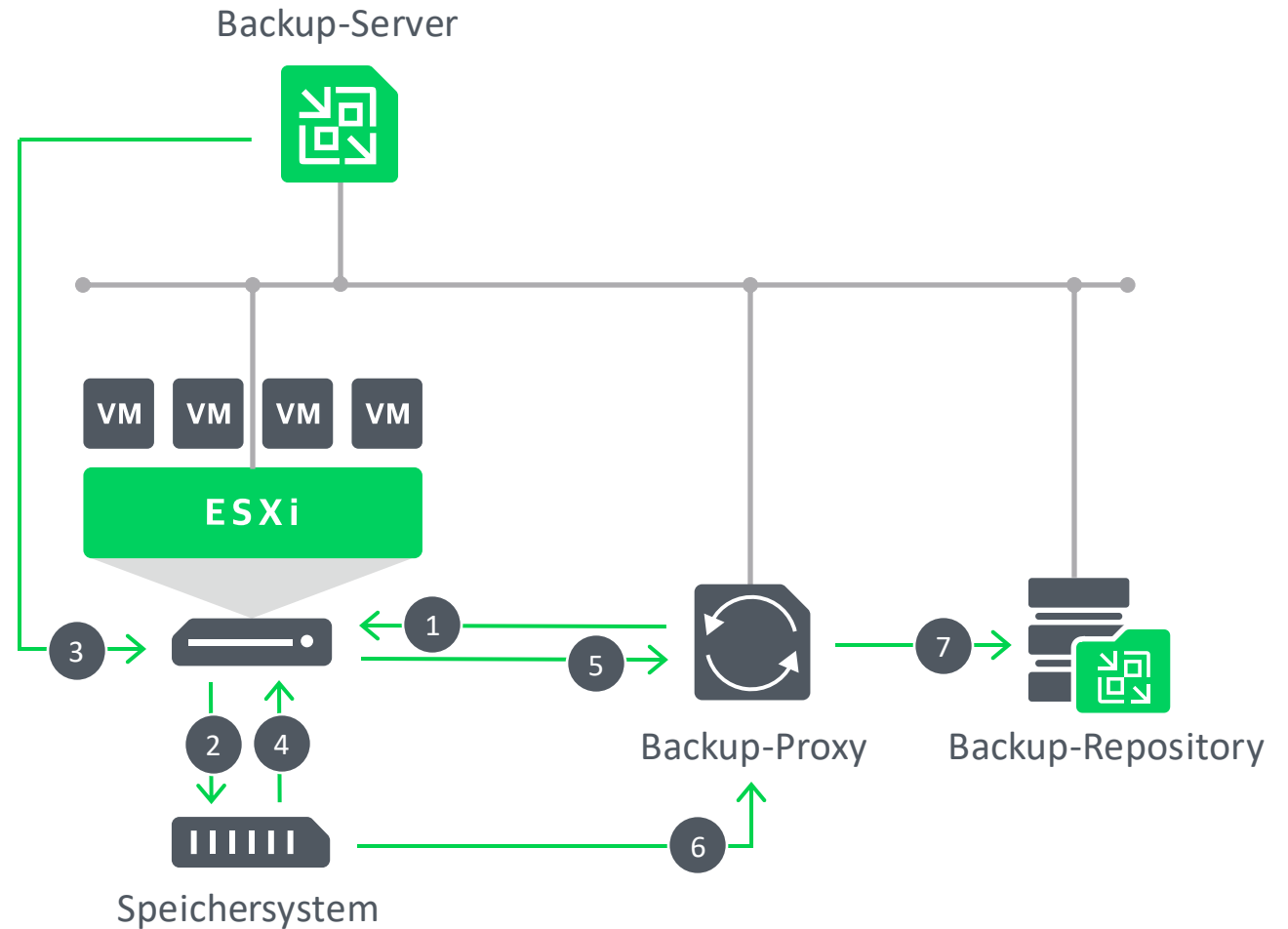
Architektur & Kernkomponenten

VMware Backup Proxy-Transportmodi

Direct Storage Access

In diesem Modus verwendet VBR VMware VADP für den direkten VM-Datentransport über SAN (FC, FCoE, iSCSI).

1. Der Proxy fordert vom ESXi-Host die VM-Position an.
2. Der ESXi-Host lokalisiert die VM.
3. VBR löst die Erstellung eines VM-Snapshots aus.
4. Der ESXi-Host ruft Metadaten über das Layout der VM-Festplatten auf dem Speicher ab.
5. Der ESXi-Host sendet Metadaten an den Proxy.
6. Der Proxy verwendet Metadaten, um VM-Datenblöcke direkt vom Quellspeicher zu kopieren.
7. Der Proxy verarbeitet kopierte Datenblöcke und sendet sie an das Ziel.





Backup Proxy (Hyper-V)

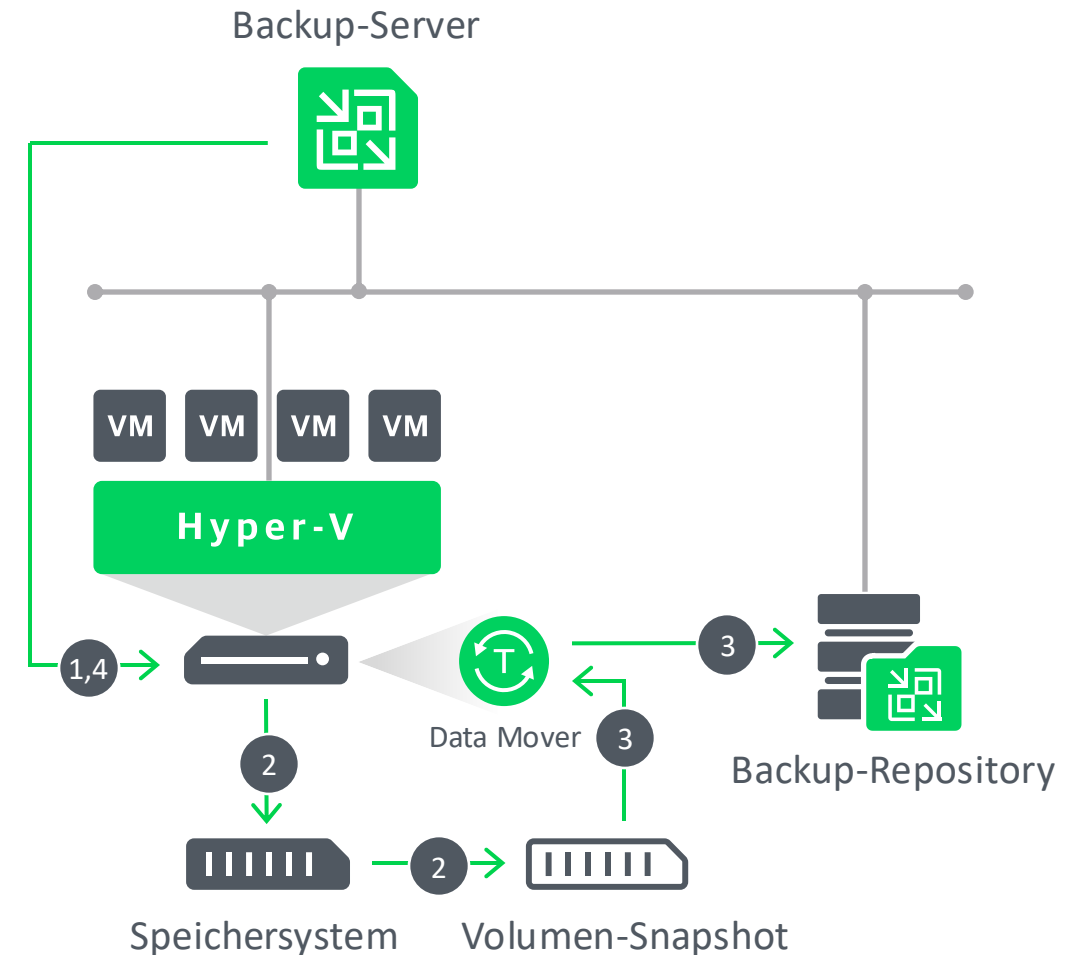
Architektur & Kernkomponenten

Hyper-V-Sicherungsmodi

On-Host

Die Verarbeitung der Backup-Daten erfolgt auf dem Hyper-V-Knoten, auf dem die virtuellen Maschinen laufen, wobei nicht transportierbare Schattenkopien über den Software-VSS-Provider genutzt werden.

1. VBR ruft VM- und Virtualisierungshost-Details von Microsoft Hyper-V ab.
2. VBR weist Microsoft Hyper-V VSS an, eine VM-Kopie zu einem bestimmten Zeitpunkt zu erstellen – entweder per Volume Snapshot oder VM Checkpoint.
3. Der Veeam Transport Service liest die VM-Daten aus dem Snapshot oder Checkpoint aus und überträgt sie an das Backup-Repository.
4. Nach dem Datentransfer fordert VBR Microsoft Hyper-V VSS zu den Bereinigungsaktionen auf.



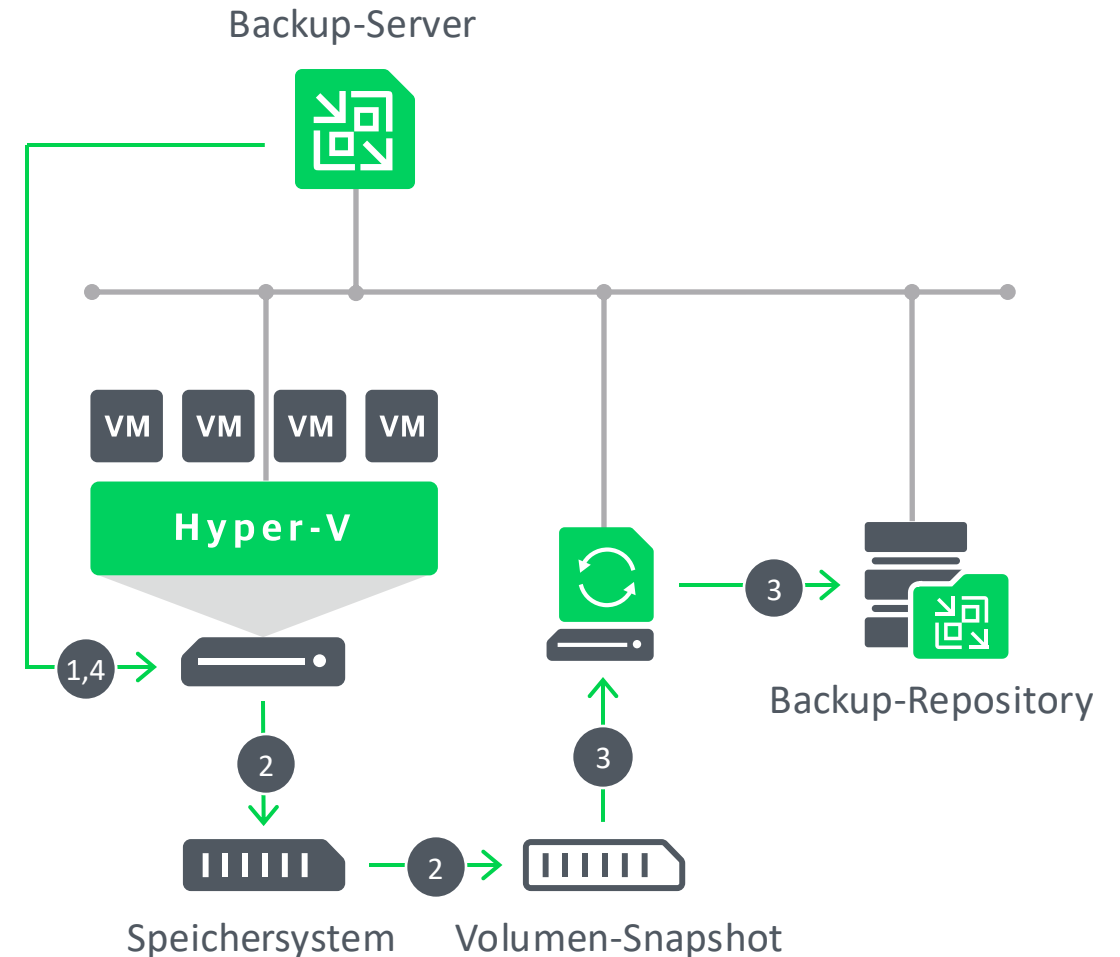
Architektur & Kernkomponenten

Hyper-V-Sicherungsmodi

Off-Host

Die Verarbeitung der Backup-Daten wird an einen separaten, nicht geclusterten Hyper-V-Knoten ausgelagert. Dabei werden transportierbare Schattenkopien über den Hardware-VSS-Provider des SAN-Storage-Herstellers genutzt.

1. VBR ruft VM- und Virtualisierungshost-Details von Microsoft Hyper-V ab.
2. VBR weist Microsoft Hyper-V VSS an, eine VM-Kopie zu einem bestimmten Zeitpunkt zu erstellen – entweder mittels Volume Snapshot oder VM Checkpoint.
3. Der Veeam Off-host Proxy liest VM-Daten aus dem Snapshot oder Checkpoint und überträgt sie in das Backup-Repository.
4. Nach dem Datentransfer fordert VBR Microsoft Hyper-V VSS zu den Bereinigungsaktionen auf.



Backup for Nutanix,
Red Hat,
Oracle Linux,
Proxmox VE,
Scale Computing
HyperCore

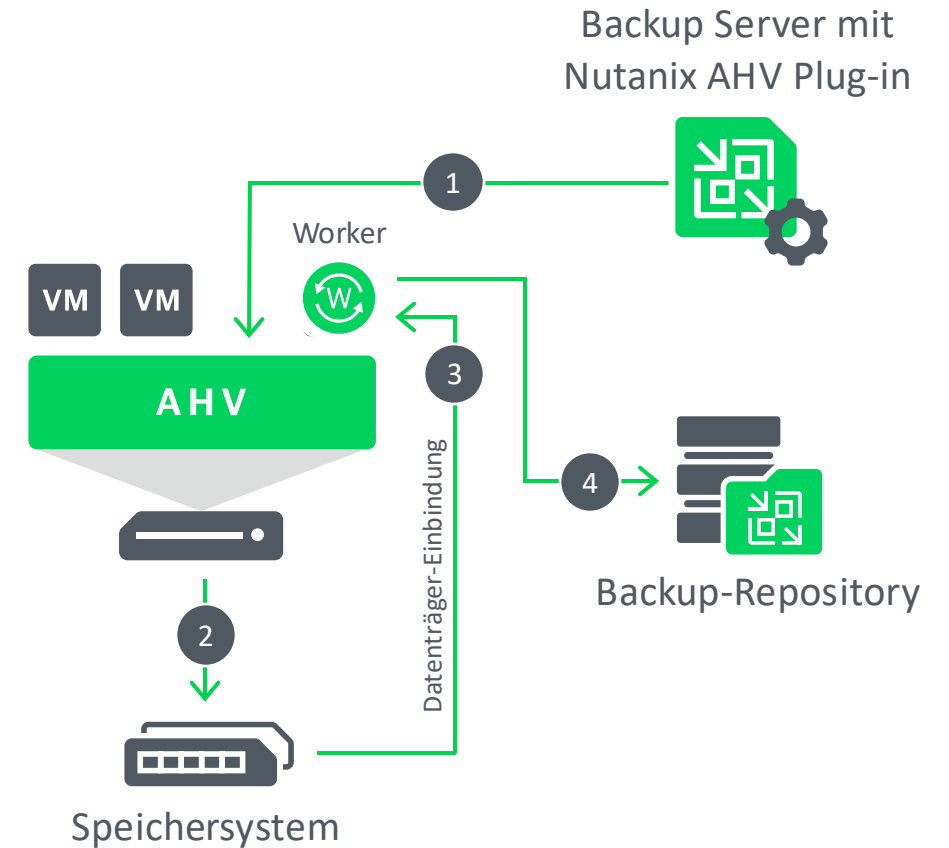


Architektur & Kernkomponenten

Nutanix AHV

Veeam Backup for Nutanix AHV nutzt die nativen Funktionen von Nutanix AHV, um Backups auf Image-Ebene zu erstellen, und installiert keine Agentensoftware in VMs, um Daten abzurufen.

1. Über die Nutanix-REST-API stellt Veeam eine Verbindung zum Nutanix-AHV-Cluster her.
2. Veeam erstellt Snapshots für alle verarbeiteten VMs oder Protection Domains. Anschließend wird eine Volume-Gruppe auf dem Nutanix-AHV-Cluster eingerichtet.
3. Veeam stellt einen Worker bereit und bindet die VM-Festplatten per iSCSI an diesen Worker ein.
4. Der Worker liest die VM-Daten auf Blockebene aus, wendet Kompression und Deduplizierung an und überträgt die Daten an das Backup-Repository.

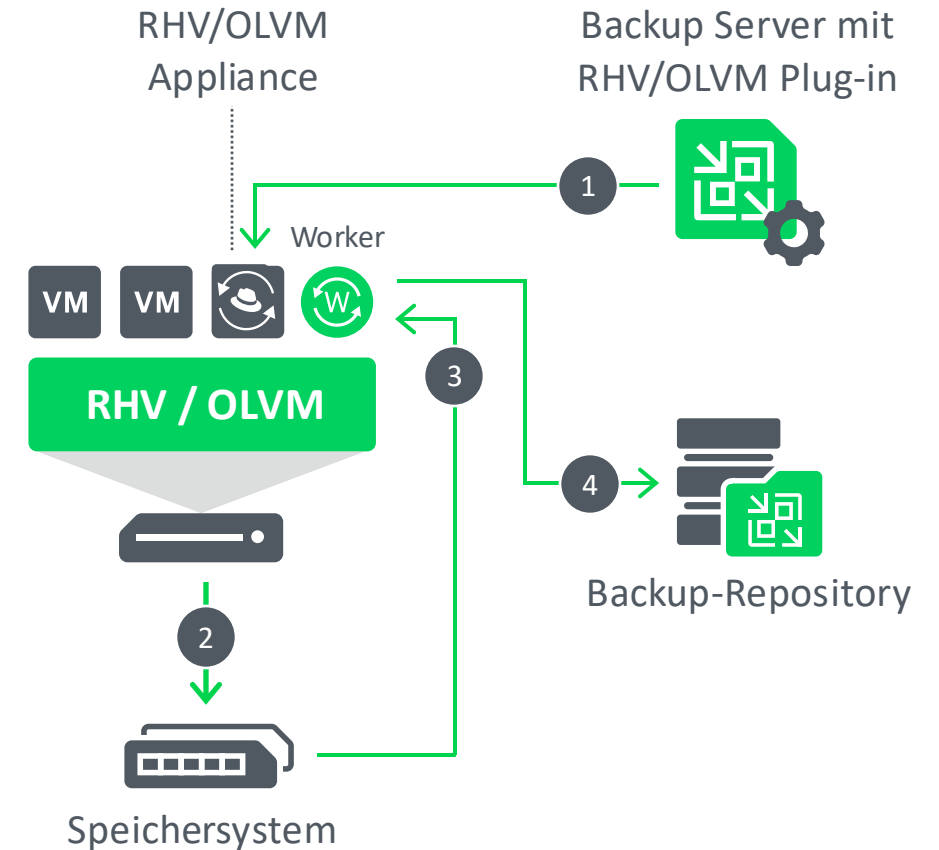


Architektur & Kernkomponenten

Red Hat Virtualization & Oracle Linux Virtualization Manager (oVirt)

Veeam Backup for RHV/OLVM nutzt native oVirt-Funktionen, um Image-Level-Backups zu erstellen, und installiert keine Agenten-Software innerhalb der VMs zur Datenentnahme.

1. VBR startet einen Backup-Job und überträgt Sitzungsdaten an die Backup-Appliance.
2. Die Backup-Appliance kommuniziert über die REST-API mit dem Virtualisierungsmanager, erstellt Snapshots für die vorgesehenen VMs und richtet anschließend eine Image-Transfer-Session ein, inklusive der entsprechenden URL.
3. Die Backup-Appliance stellt einen Worker bereit, der die bereitgestellte URL nutzt, um die VM-Daten abzurufen.
4. Der Worker wendet Kompression und Deduplizierung auf die VM-Daten an, bevor diese an das zugewiesene Backup-Repository übertragen werden.

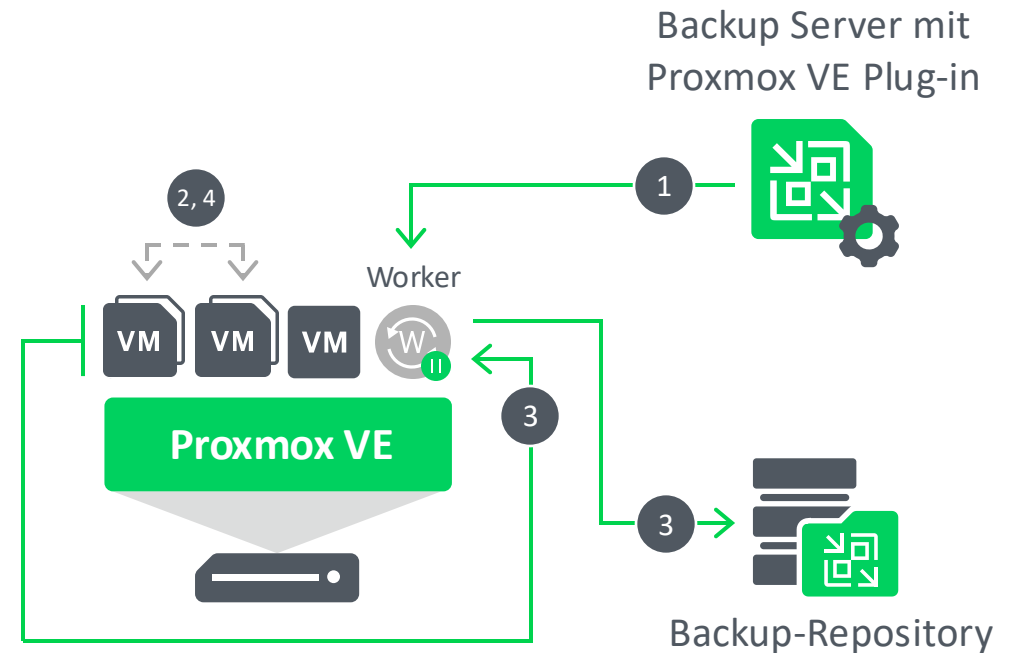


Architektur & Kernkomponenten

Proxmox VE

Veeam Backup for Proxmox VE nutzt native Funktionen, um Image-Level-Backups zu erstellen, und installiert keine Agenten-Software innerhalb der VMs zur Datenerfassung.

1. Startet einen Worker auf dem Host, auf dem sich die VM befindet. Wenn dort keiner bereitgestellt ist, verwendet Veeam Backup for Proxmox VE einen Worker von einem anderen verbundenen Host.
2. Stellt eine Verbindung zum Proxmox-VE-Server her und erstellt einen Copy-on-Write-Snapshot der verarbeiteten VM.
3. Der Worker liest die Daten von den VM-Festplatten aus, vergleicht sie mit dem Snapshot aus Schritt 2, schließt Änderungen aus und überträgt die resultierenden Daten im nativen Veeam-Format an das Ziel-Repository.
4. Entfernt den erstellten Snapshot und beendet den Worker, sobald die Backup-Session abgeschlossen ist.

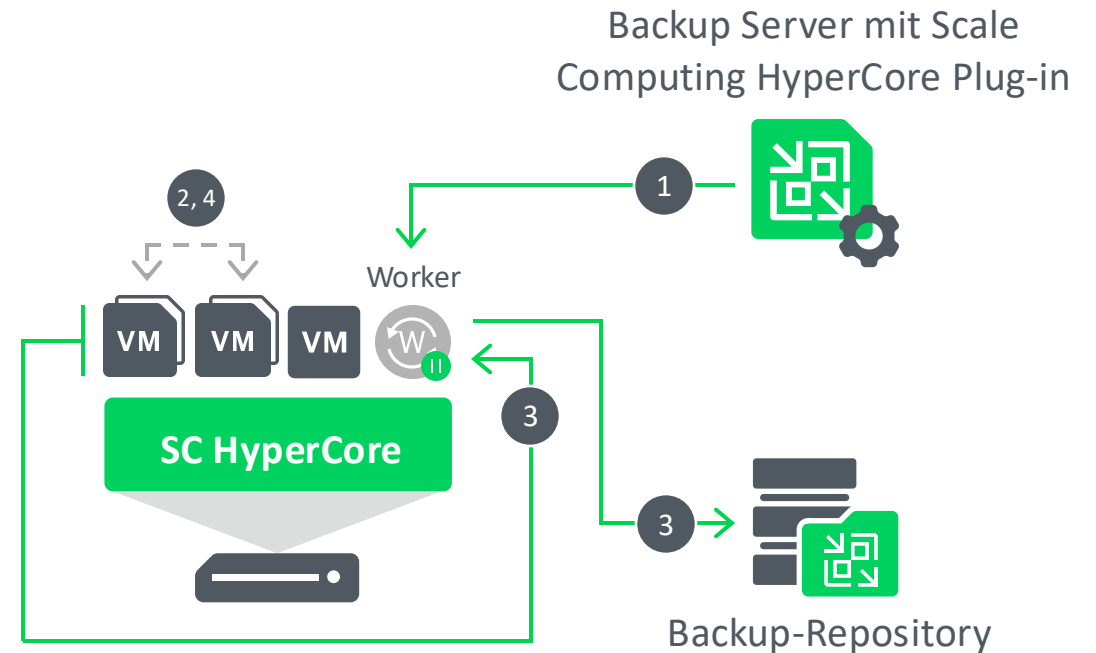


Architektur & Kernkomponenten

Scale Computing HyperCore

Veeam Backup for Scale Computing HyperCore nutzt native Funktionen, um Image-Level-Backups zu erstellen, und installiert keine Agenten-Software innerhalb der VMs zur Datenerfassung.

1. Startet einen Worker auf dem HyperCore-Knoten, auf dem die VM läuft. Wenn dort keiner verfügbar ist, startet das Veeam Plug-in einen Worker auf einem anderen HyperCore-Knoten, der mit der Backup-Infrastruktur verbunden ist.
2. Stellt eine Verbindung zum HyperCore-Cluster her und erstellt einen Snapshot der VM.
3. Der Worker liest die Festplattendaten der VM aus, vergleicht sie mit dem Snapshot aus Schritt 2, filtert unveränderte Blöcke heraus und überträgt die resultierenden Daten im nativen Veeam-Format an das Backup-Repository.
4. Löscht den Snapshot und beendet den Worker, sobald das Backup abgeschlossen ist.



Machen wir eine
5-minütige
Pause

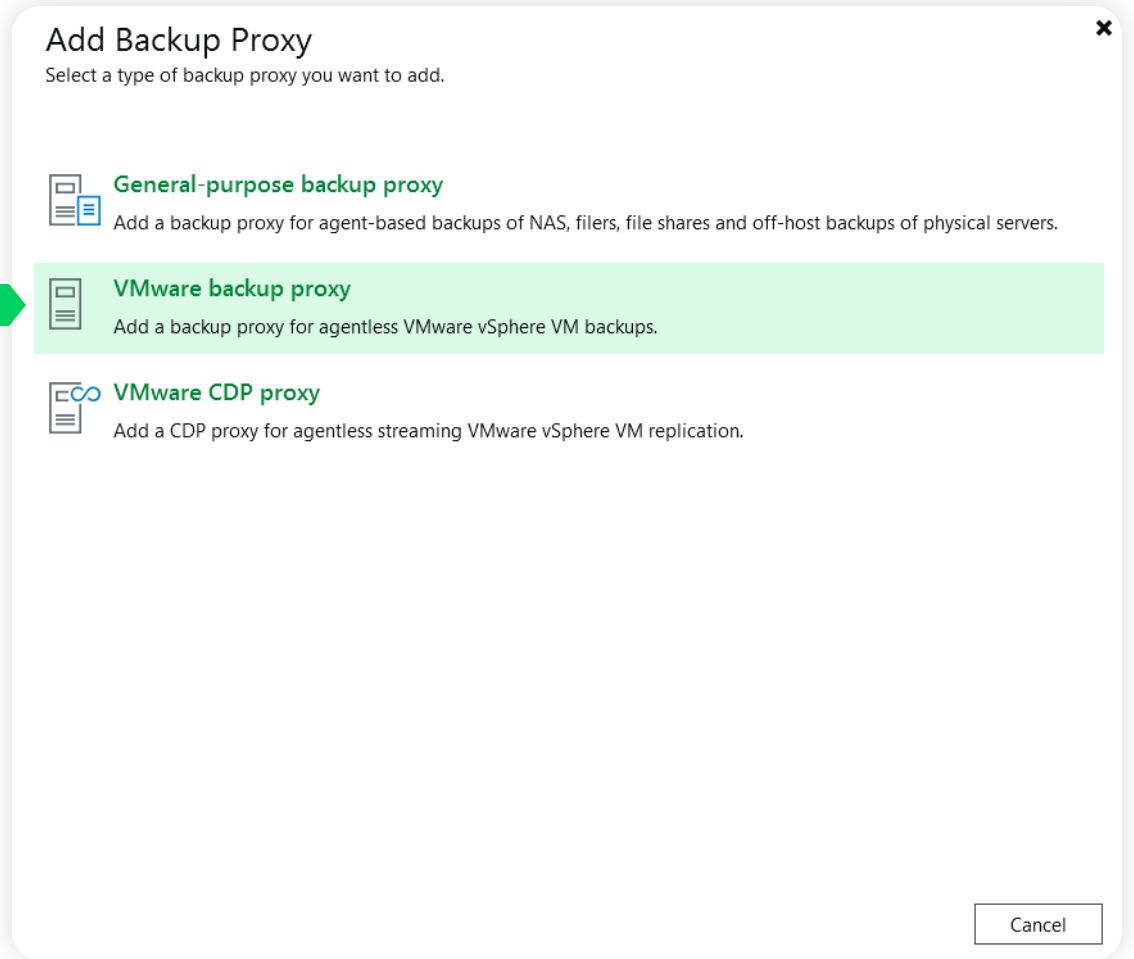
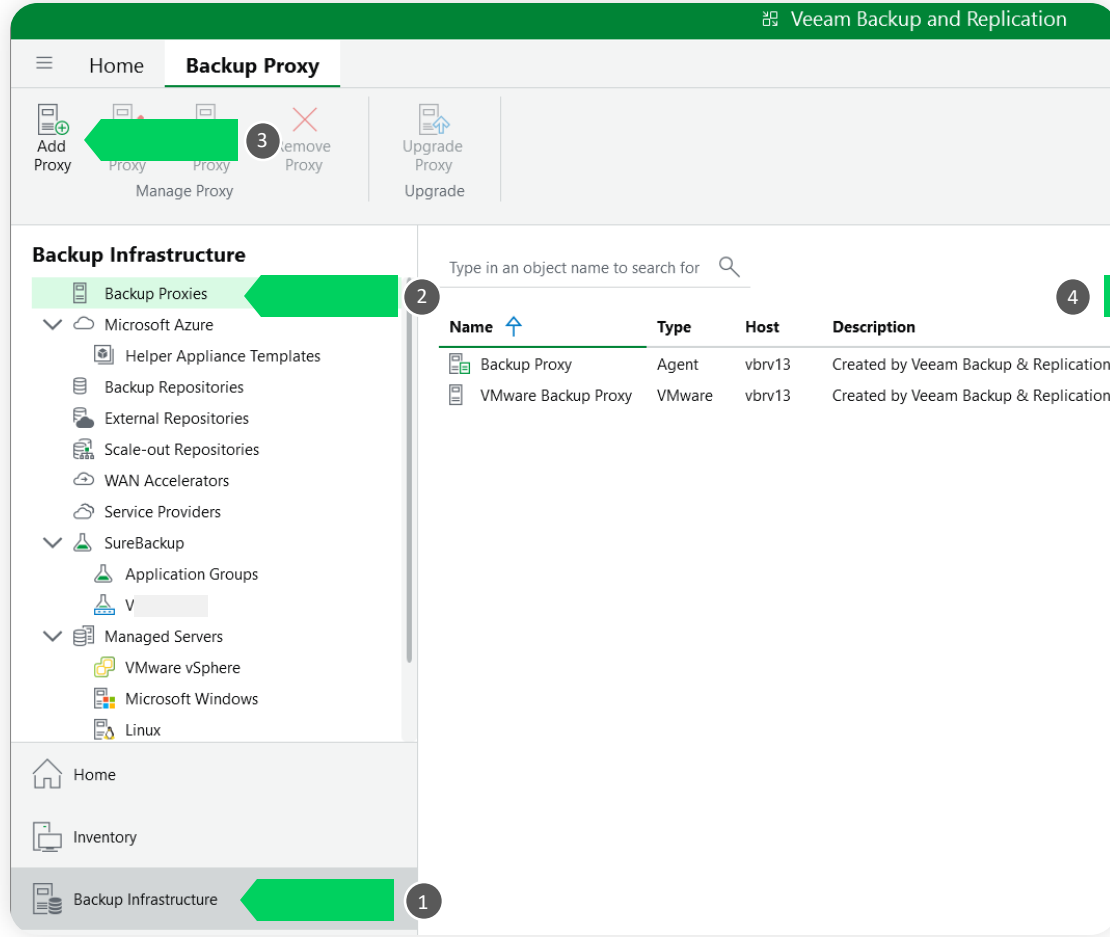




Wie installiert und
konfiguriert man
einen Backup-Proxy?

Architektur & Kernkomponenten

Wie fügt man einen Proxy hinzu? VMware-Beispiel.



Architektur & Kernkomponenten

Wie fügt man einen Proxy hinzu? VMware-Beispiel.

New VMware Proxy

Server

Traffic Rules

Review

Apply

Summary

Server

Choose a server for VMware backup proxy. You can choose between any Microsoft Windows or Linux servers added to the Managed Servers which are not assigned a VMware backup proxy role already.

Choose server:

vbrv13 (Backup server)

Add New...

Description:

Transport mode:

Automatic selection

Choose...

Connected datastores:

Automatic detection (recommended)

Choose...

Max concurrent tasks:

8

✓

< Previous

Next >

Finish

Cancel

Architektur & Kernkomponenten

Wie fügt man einen Proxy hinzu? VMware-Beispiel.

New VMware Proxy

Server

Choose a server for VMware backup proxy. You can choose between any Microsoft Windows or Linux servers added to the Managed Servers which are not assigned a VMware backup proxy role already.

Choose server: vbrv13 (Backup server) [Add New...](#)

Description:

Transport mode: Automatic selection [Choose...](#)

Connected datastores: Automatic detection (recommended) [Choose...](#)

Max concurrent tasks: 8 [v](#) [^](#)

< Previous Next > Finish Cancel

Transport Mode

Backup proxy transport mode:

- ☒ **Automatic selection**
Data retrieval mode is selected automatically by analyzing backup proxy configuration and reachable VMFS and NFS datastores. Transport modes allowing for direct storage access will be used whenever possible.
- ☐ **Direct storage access**
Data is retrieved directly from shared storage, without impacting production hosts. For block storage, backup proxy server must be connected into SAN fabric via hardware or software HBA, and have VMFS volumes mounted.
- ☐ **Virtual appliance**
Data is retrieved directly from storage through hypervisor I/O stack by hot adding backed up virtual disks to a backup proxy VM. Datastores containing protected VMs must be connected to a host running backup proxy VM.
- ☐ **Network**
Data is retrieved from storage through hypervisor network stack using NBD protocol over host management interface. This mode has no special setup requirements. Recommended for 10 Gb Ethernet or faster.

Options

- ☒ Failover to network mode if primary mode fails, or is unavailable
- ☒ Enable host to proxy traffic encryption in Network mode (NBDSSL)

OK Cancel

Architektur & Kernkomponenten

Wie fügt man einen Proxy hinzu? VMware-Beispiel.

New VMware Proxy

Server

Choose a server for VMware backup proxy. You can choose between any Microsoft Windows or Linux servers added to the Managed Servers which are not assigned a VMware backup proxy role already.

Choose server:
vbrv13 (Backup server) Add New...

Description:

Transport mode:
Automatic selection Choose...

Connected datastores:
Automatic detection (recommended) Choose...

Max concurrent tasks: 8 ✓

< Previous Next > Finish Cancel

Veeam Backup & Replication creates one task per every VM disk.

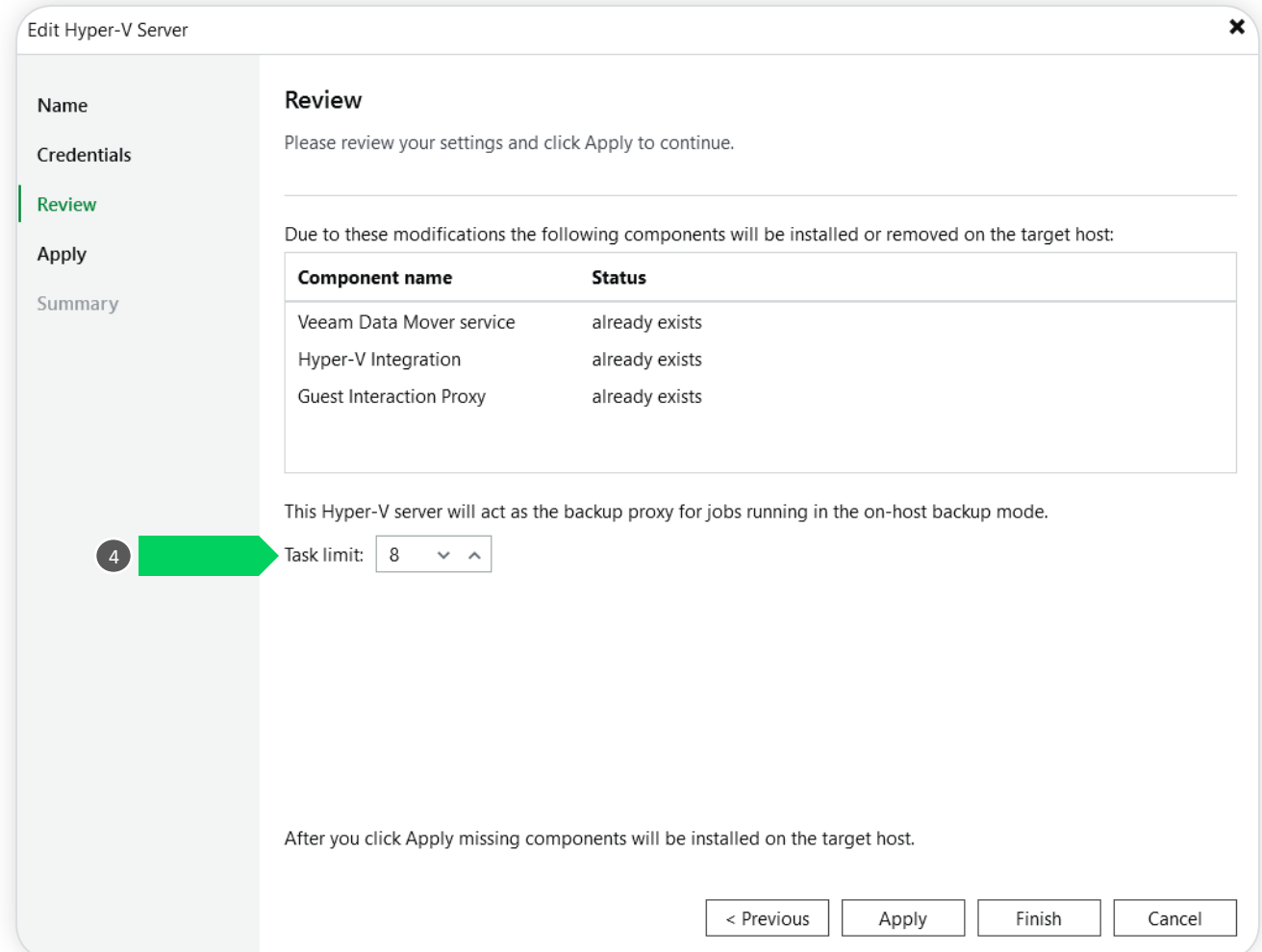
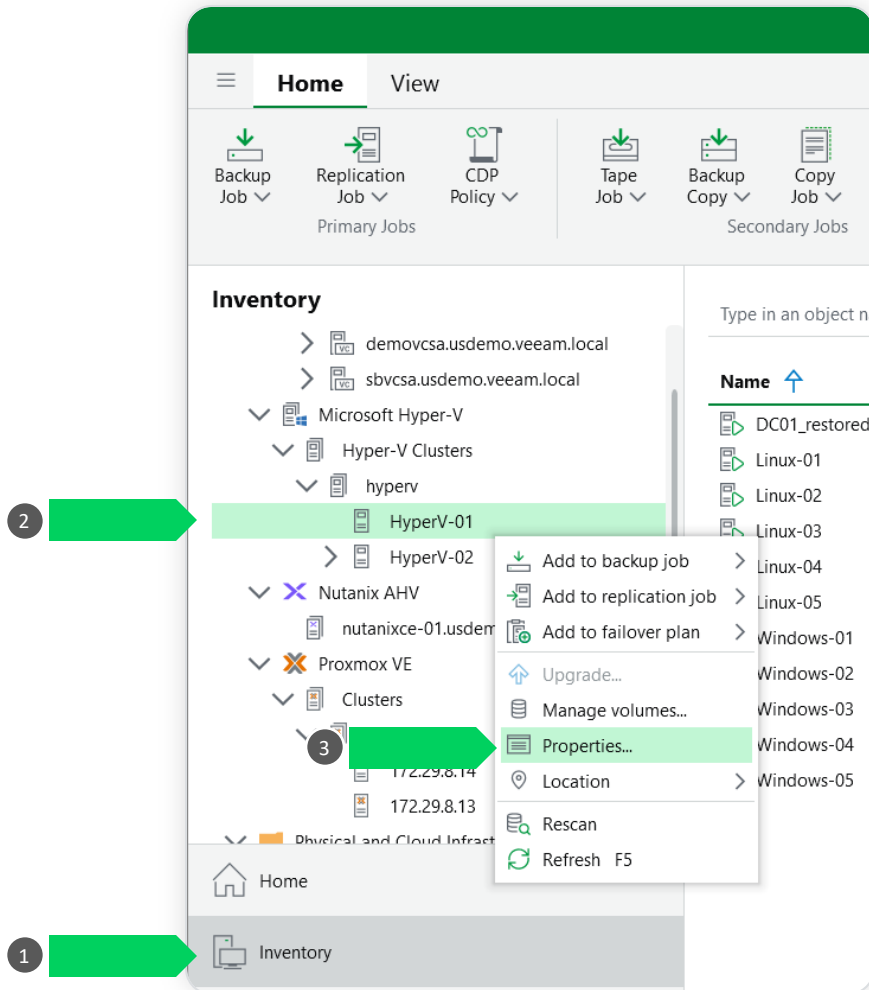
The recommended number of concurrent tasks is calculated automatically based on available resources: 1 CPU core = 2 concurrent tasks.

But the best practice is to reserve 2 CPUs cores and 2GB of RAM for the needs of the OS.

Thus, for a 4-core CPU, it is recommended that you set-up 4 concurrent tasks $((4 \text{ CPUs} - 2 \text{ CPUs}) \times 2 = 4)$, for an 8-core CPU — 12 concurrent tasks $((8 \text{ CPUs} - 2 \text{ CPUs}) \times 2 = 12)$.

Architektur & Kernkomponenten

Wie konfiguriert man einen Proxy? Hyper-V-Beispiel.



Architektur & Kernkomponenten

VSA-Proxy Installation

Melden Sie sich bei my.veeam.com an. Die Veeam Infrastructure Appliance finden Sie unter Products (linke Seite) → Veeam Software Appliance → Extensions and Other.

Additional Downloads

Cloud Plug-ins

Virtualization Plug-ins

Application Plug-ins

Storage Plug-ins

Third Party Integration

Extensions and Other

Veeam Infrastructure Appliance




Version: 13.0.0.4967

September 3, 2025

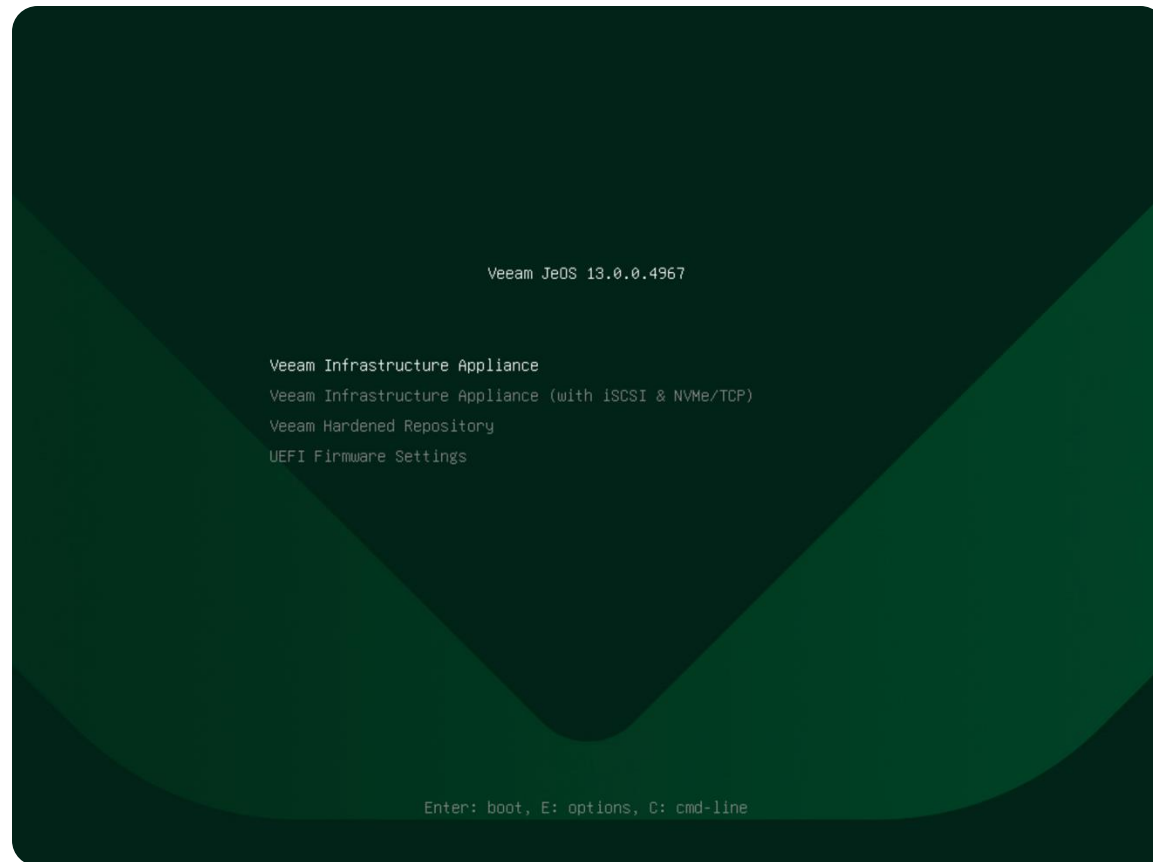
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SHA-1: cf9f...c42c 

SHA-256: 0bf5...a606 

Architektur & Kernkomponenten

VSA-Proxy Installation



Architektur & Kernkomponenten

VSA-Proxy Installation

Initial Configuration Wizard

> License

Hostname

Network

Time

Host Administrator

Security Officer

Summary

By pressing "Accept" button, you confirm that you have read and agree to the terms in each of the documents below:

- [Veeam End User License Agreement (EULA)]

- [Veeam Licensing Policy]

- [License Agreements of 3rd party components]

- [License Agreements of required software]

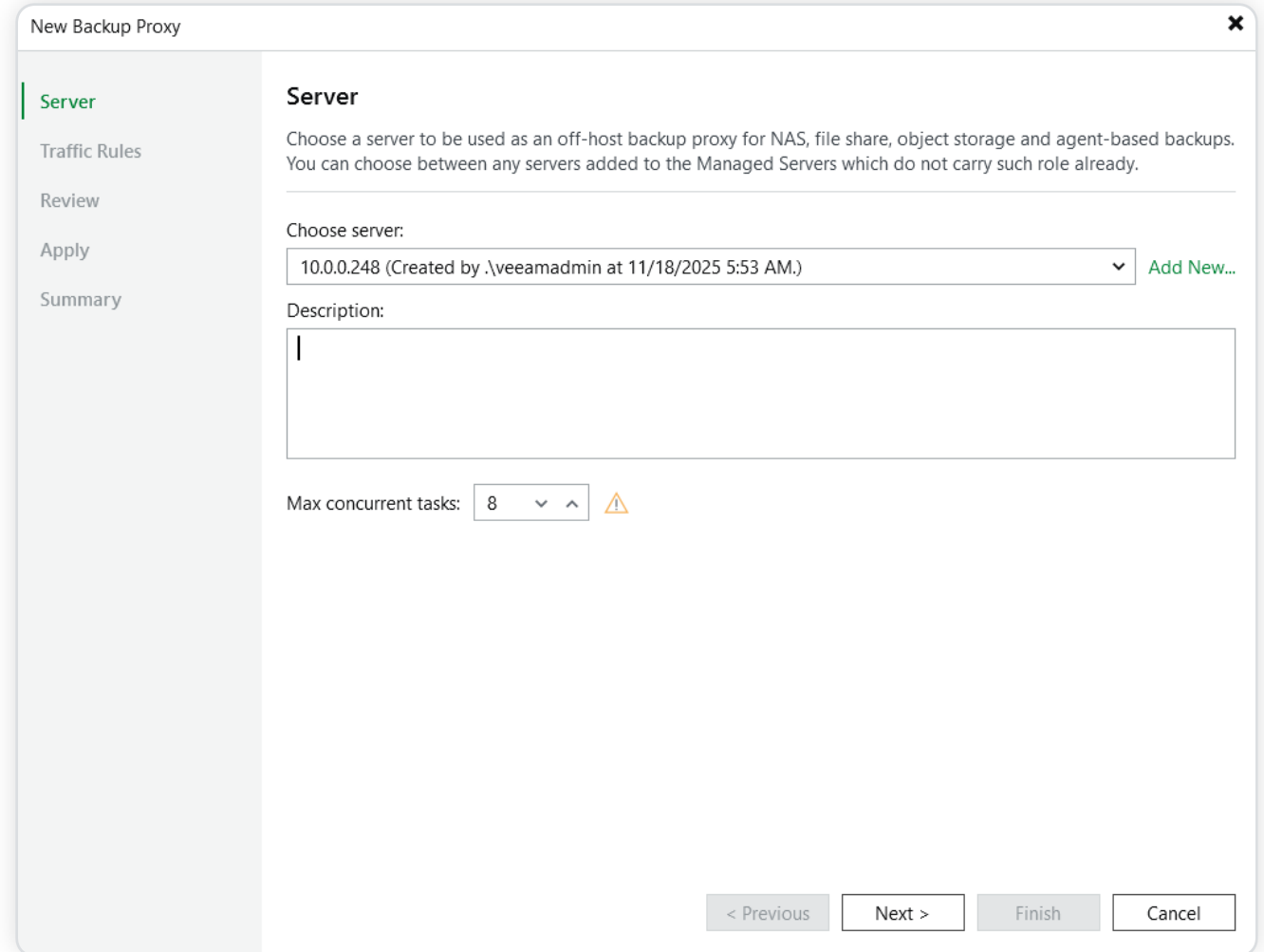
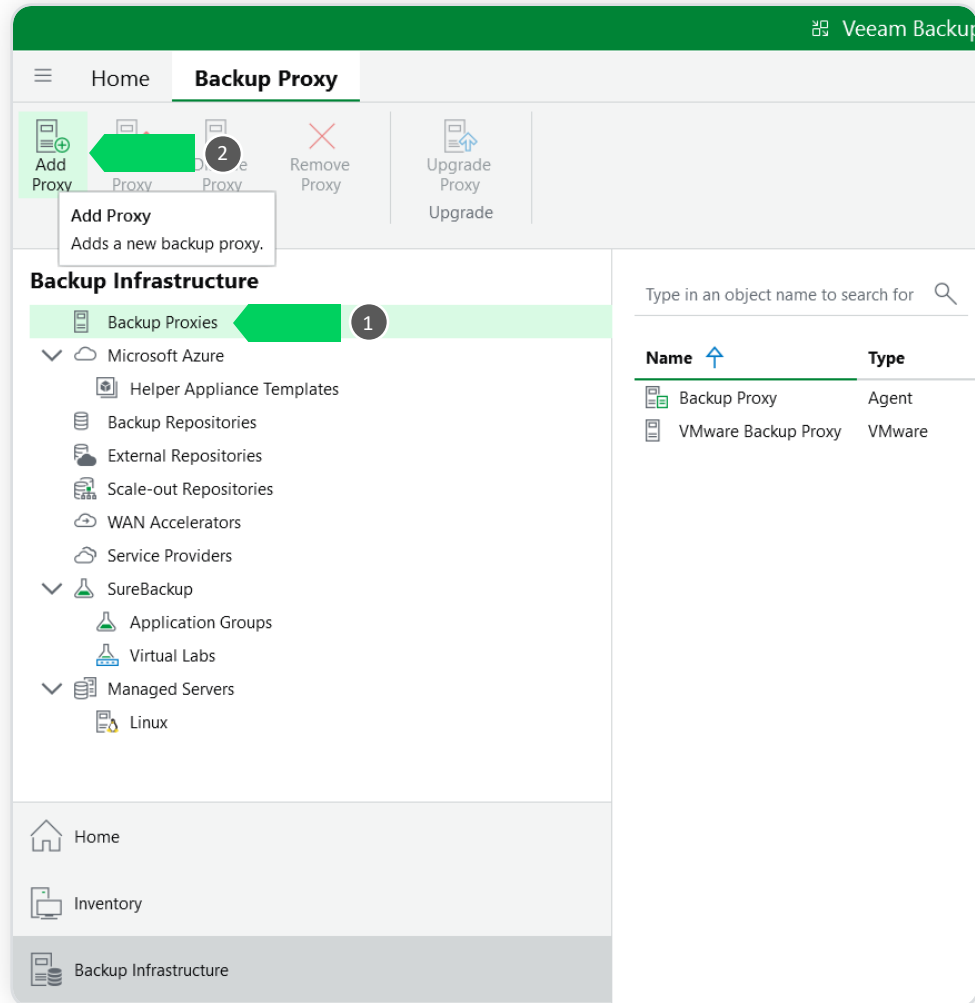
For a web copy, go to vee.am/legal

[Accept]

Alle Schritte sind identisch mit dem VSA-Installationsassistenten ...

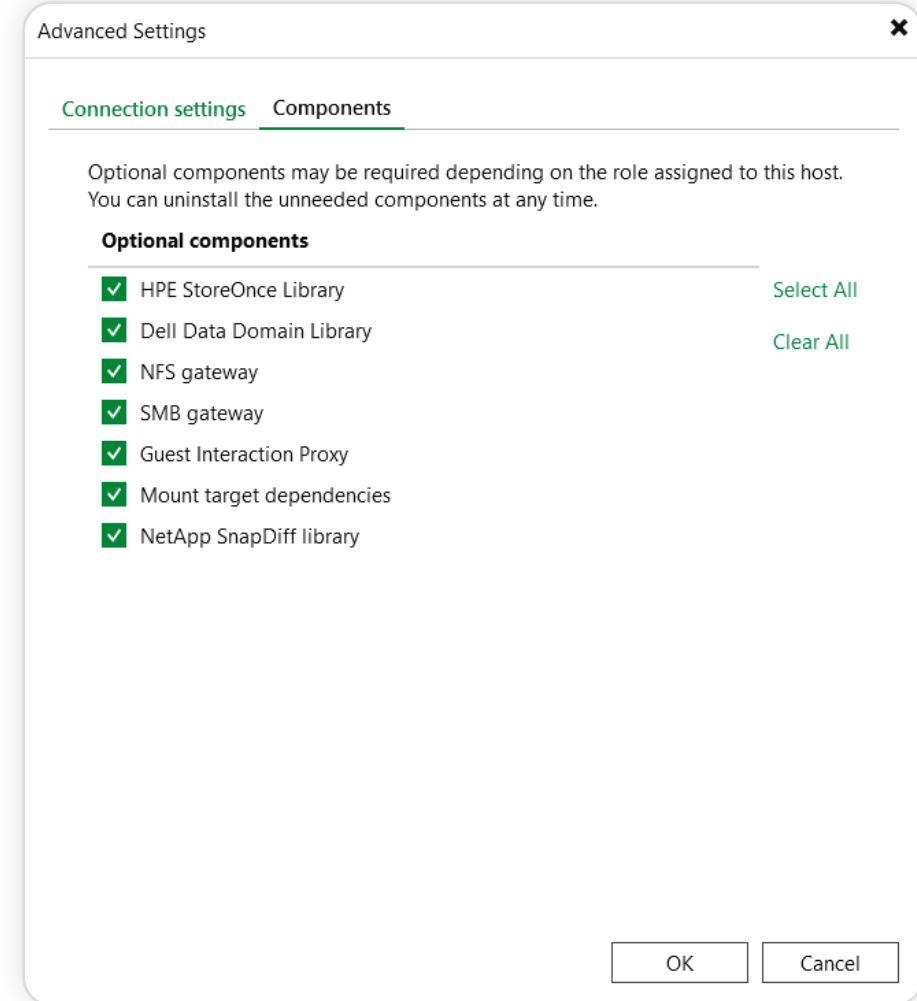
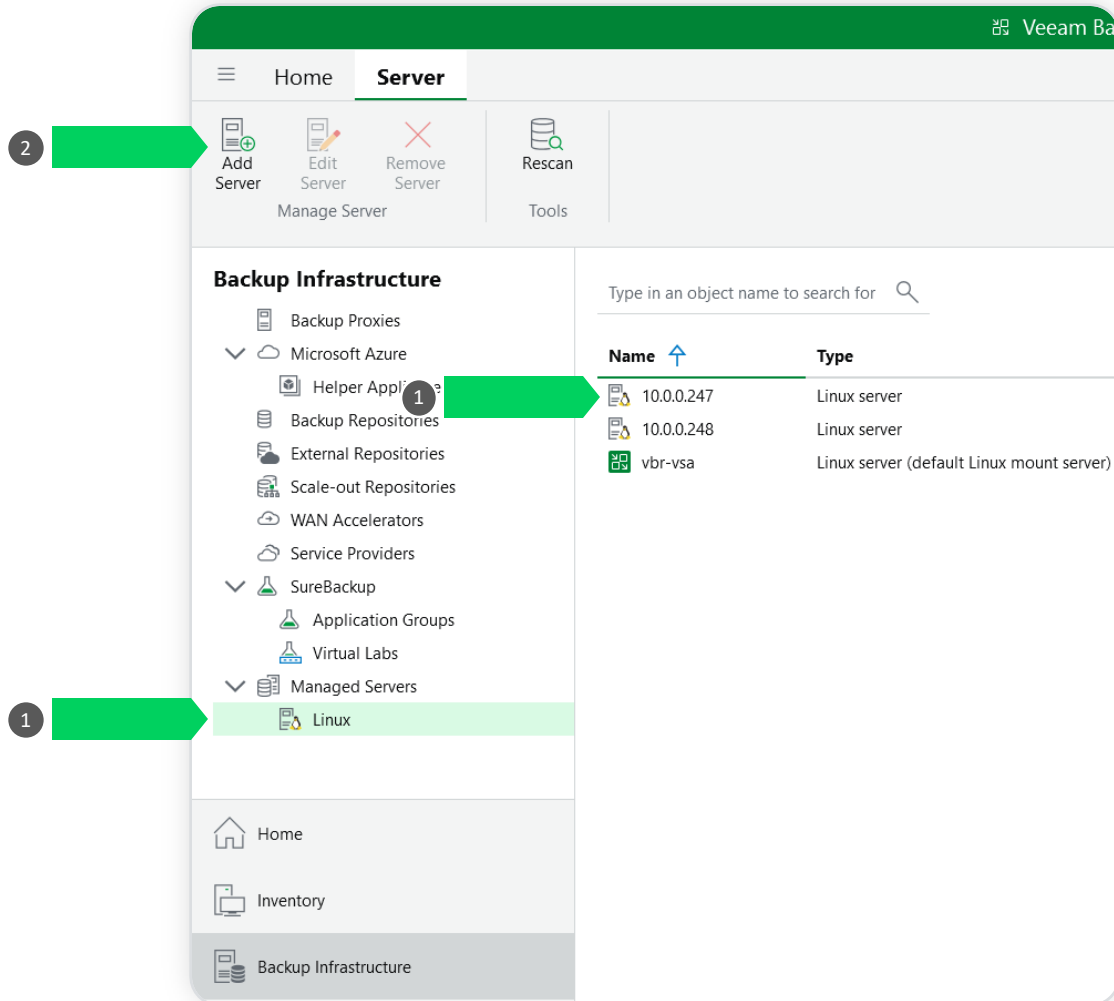
Architektur & Kernkomponenten

VSA-Proxy Konfiguration

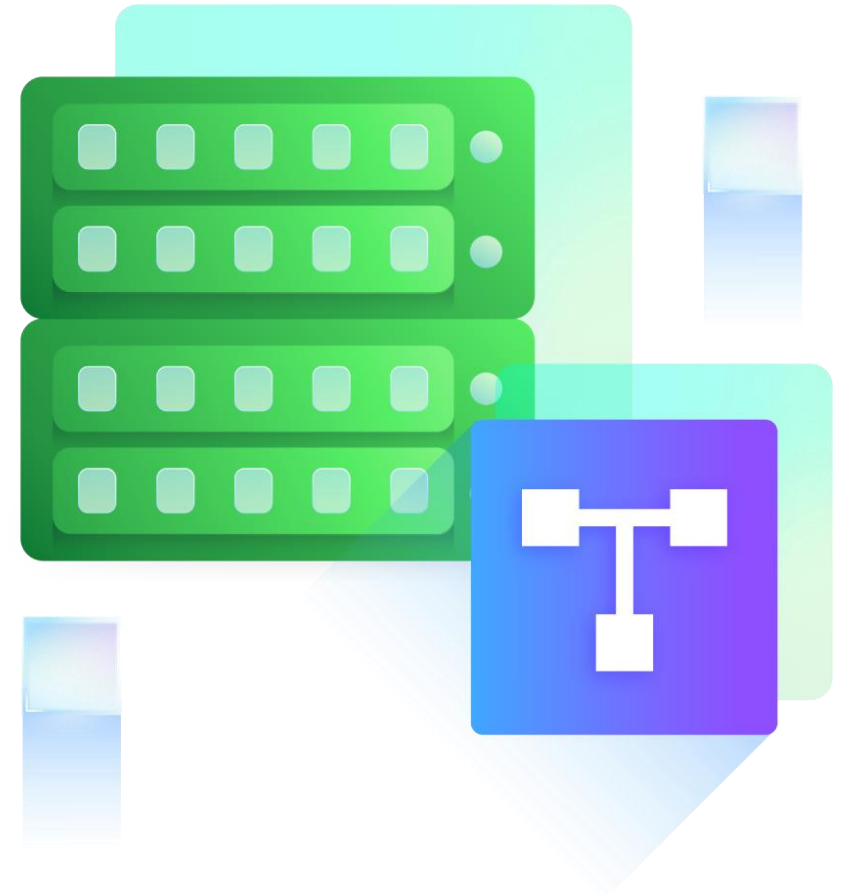


Architektur & Kernkomponenten

VSA-Proxy Konfiguration; als Managed Server hinzufügen (optional)



Backup-Repository



Architektur & Kernkomponenten

Backup Repository

Ein Repository ist ein Speicherort, an dem Sicherungsdateien, Kopien von VM-Daten und die für die Wiederherstellung erforderlichen Metadaten abgelegt werden.

Das Repository kann sich lokal oder remote befinden und dient als zentraler Speicherplatz für Backup- und Replikationsdaten.

Direct Attached Storage

- Microsoft Windows Server
- Linux Server
- Veeam Hardened Repository

Deduplicating Storage Appliances

- Dell EMC Data Domain
- ExaGrid
- Fujitsu ETERNUS CS800
- HPE StoreOnce
- Infinidat InfiniGuard
- Quantum Dxi

Network Attached Storage

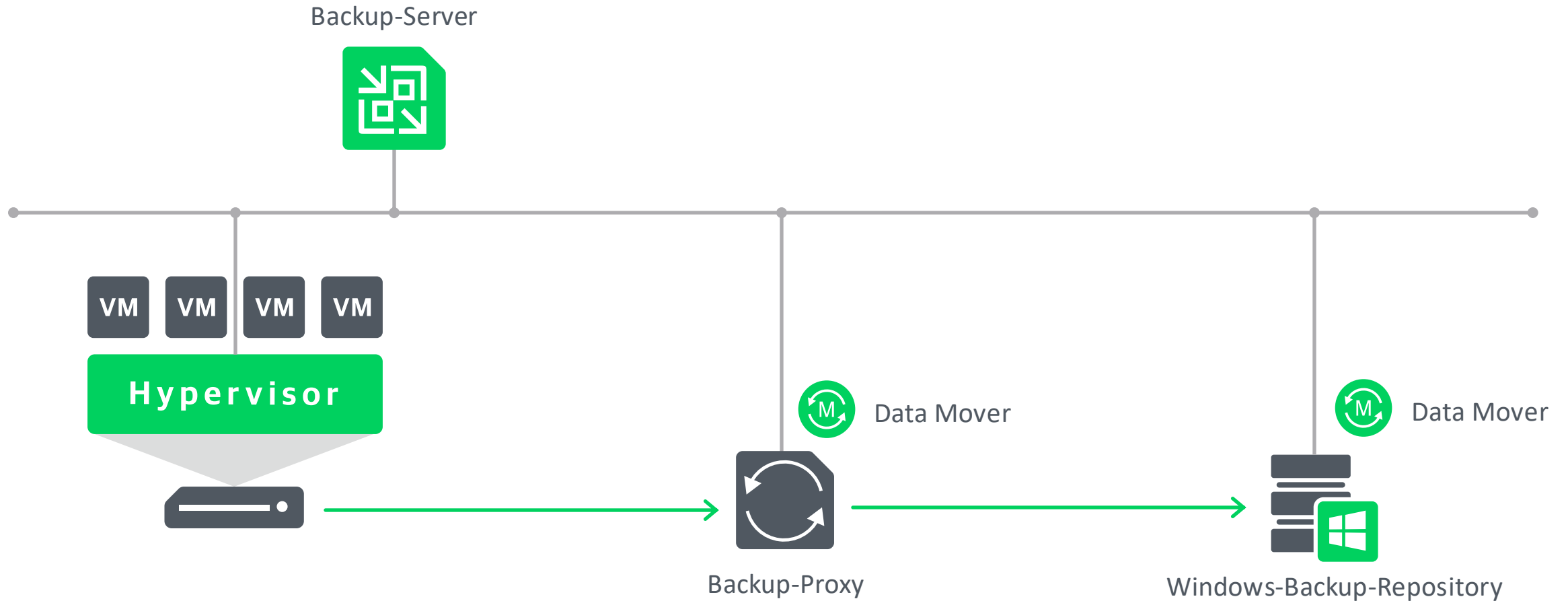
- SMB (CIFS) Freigabe
- NFS Freigabe

Objektspeicher

- Veeam Data Cloud Vault
- S3-kompatibel
- Amazon S3
- Google Cloud Storage
- IBM Cloud Object Storage
- Microsoft Azure Storage
- Wasabi Cloud Storage

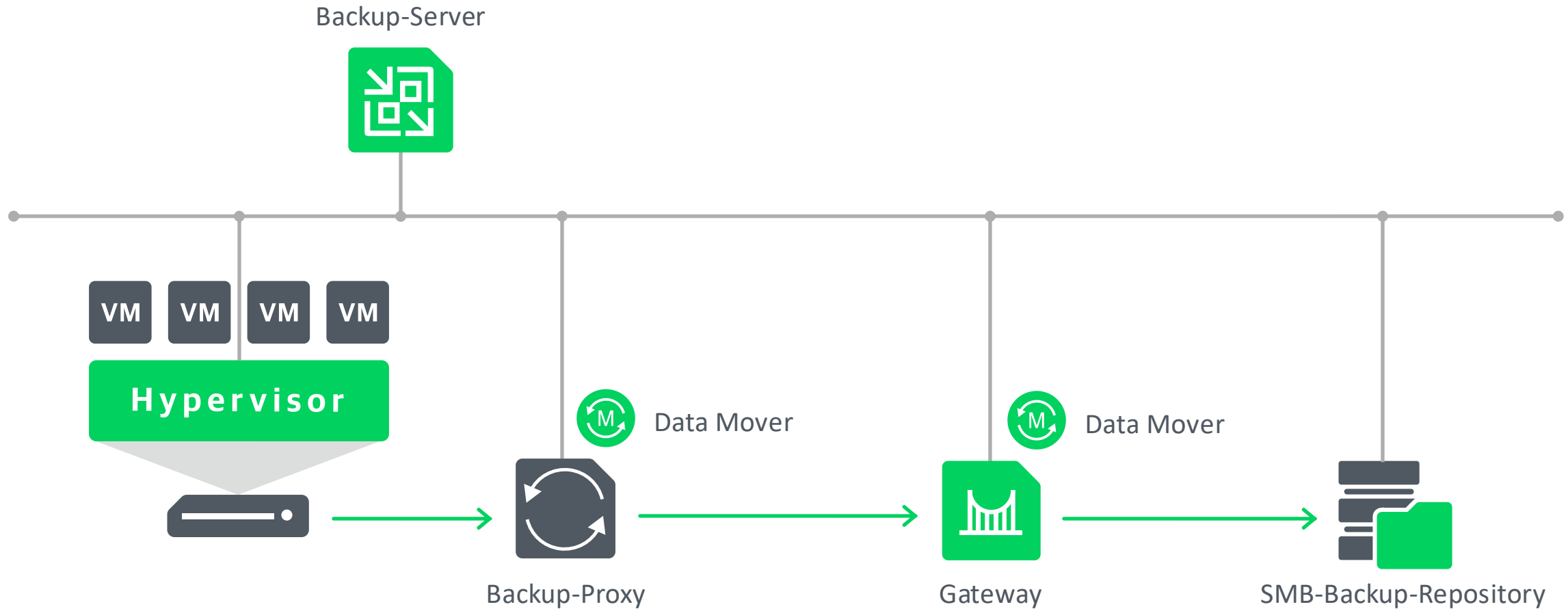
Architektur & Kernkomponenten

Beispiel für ein Windows-Backup-Repository



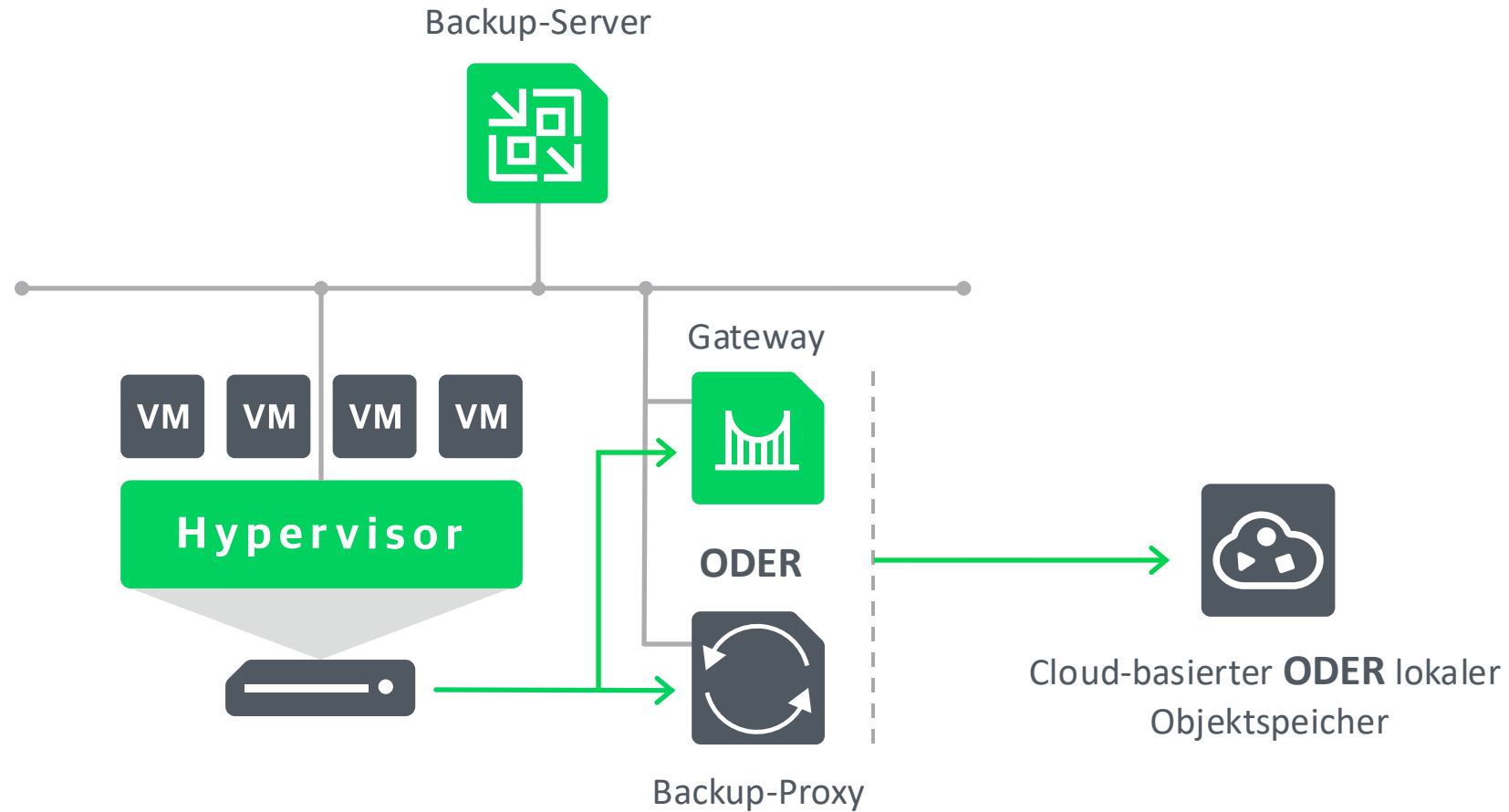
Architektur & Kernkomponenten

Beispiel für ein SMB-Backup-Repository



Architektur & Kernkomponenten

Beispiel für ein Objektspeicher-Repository



Unveränderbarkeit



Unveränderbarkeit

Definition von Unveränderbarkeit:

- Unveränderbarkeit bezeichnet den Zustand von Daten, der verhindert, dass sie verändert oder gelöscht werden können.

Vorteile der Unveränderbarkeit:

- Gewährleistet Datenintegrität und -sicherheit.
- Bietet Schutz vor Ransomware und versehentlichem Löschen.

Unterstützte Arten unveränderlicher Repositories

- Amazon-, S3-kompatible und Azure-Objektspeicher-Repositories
- Veeam Data Cloud Vault
- Veeam Hardened Repository
- HPE StoreOnce
- Dell EMC Data Domain

Unveränderbarkeit

Hinzufügen eines Veeam Hardened Repository

Im Schritt SSH-Verbindung des Assistenten geben Sie **Einweg-Anmeldedaten** oder ein **Zertifikat** an, um eine Verbindung zum Linux-Server herzustellen und den Veeam Data Mover bereitzustellen.

Veeam Backup & Replication **speichert diese Anmeldedaten nicht** in der Konfigurationsdatenbank.

HINWEIS: Das verwendete Benutzerkonto muss ein Non-Root-Konto sein. Außerdem muss das Benutzerkonto über ein **Home-Verzeichnis** auf dem Linux-Server verfügen.

Edit Linux Server

Name

Access

Review

Apply

Summary

Access

Provide credentials for service console connection, and adjust secure shell (SSH) port number using advanced settings if required.

Select authentication method:

☒ Connect using certificate-based authentication (recommended)

This authentication option provides the highest level of security and is available for hosts deployed from Veeam JeOS image.

☐ SSH credentials:

Add new single-use credentials

Add...

Manage accounts

Optional components and advanced connection settings

< Previous

Next >

Finish

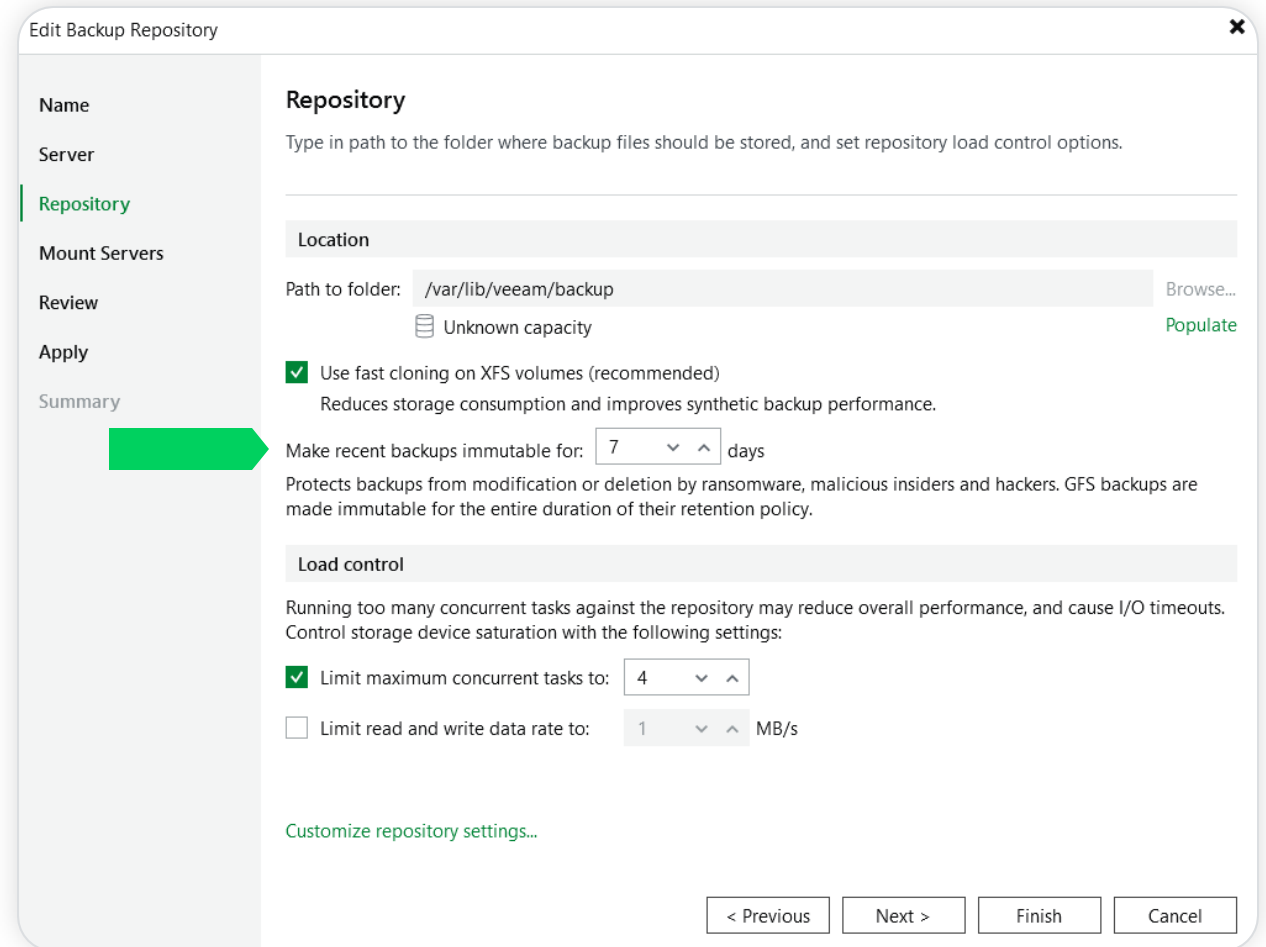
Cancel

Unveränderbarkeit

Backups unveränderbar machen mit dem Veeam Hardened Repository

Wenn Sie ein Hardened Repository hinzufügen, legen Sie den Zeitraum fest, in dem die Backup-Dateien unveränderbar sein müssen.

Während dieses Zeitraums können die in diesem Repository gespeicherten Backup-Dateien **weder geändert noch gelöscht** werden.



Edit Backup Repository

Name

Server

Repository

Mount Servers

Review

Apply

Summary

Repository

Type in path to the folder where backup files should be stored, and set repository load control options.

Location

Path to folder: [Browse...](#)

☐ Unknown capacity [Populate](#)

☒ Use fast cloning on XFS volumes (recommended)
Reduces storage consumption and improves synthetic backup performance.

Make recent backups immutable for: days
Protects backups from modification or deletion by ransomware, malicious insiders and hackers. GFS backups are made immutable for the entire duration of their retention policy.

Load control

Running too many concurrent tasks against the repository may reduce overall performance, and cause I/O timeouts. Control storage device saturation with the following settings:

☒ Limit maximum concurrent tasks to:

☐ Limit read and write data rate to: MB/s

[Customize repository settings...](#)

[< Previous](#) [Next >](#) [Finish](#) [Cancel](#)

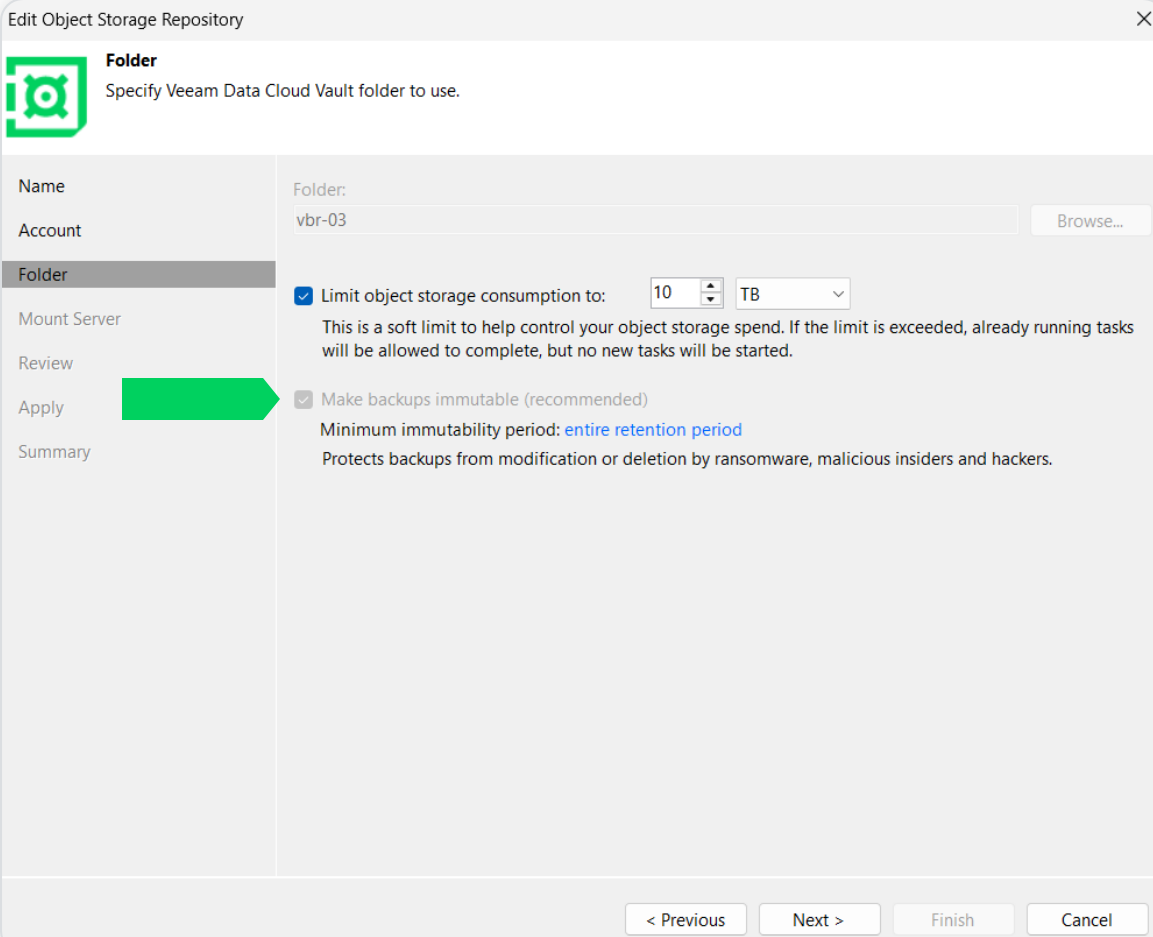
Unveränderbarkeit

Backups unveränderbar machen mit Object Storage

Um Daten unveränderbar zu machen, nutzt Veeam Backup & Replication Technologien, die das Löschen von Daten verhindern und es ermöglichen, mehrere Versionen von Objekten aufzubewahren.

Welche **Technologie** verwendet wird, **hängt vom jeweiligen Object Storage ab**:

- Object Lock und Versioning – für Amazon S3 Storage, S3-kompatible Anbieter, IBM Cloud, Wasabi Cloud und VDC Vault (standardmäßig unveränderbar).
- Versionsbasiertes WORM und Blob-Versionierung – für Azure Storage.



Edit Object Storage Repository

Folder
Specify Veeam Data Cloud Vault folder to use.

Name
Account
Folder
Mount Server
Review
Apply
Summary

Folder:
vbr-03 Browse...

☒ Limit object storage consumption to: 10 TB
This is a soft limit to help control your object storage spend. If the limit is exceeded, already running tasks will be allowed to complete, but no new tasks will be started.

☒ Make backups immutable (recommended)
Minimum immutability period: [entire retention period](#)
Protects backups from modification or deletion by ransomware, malicious insiders and hackers.

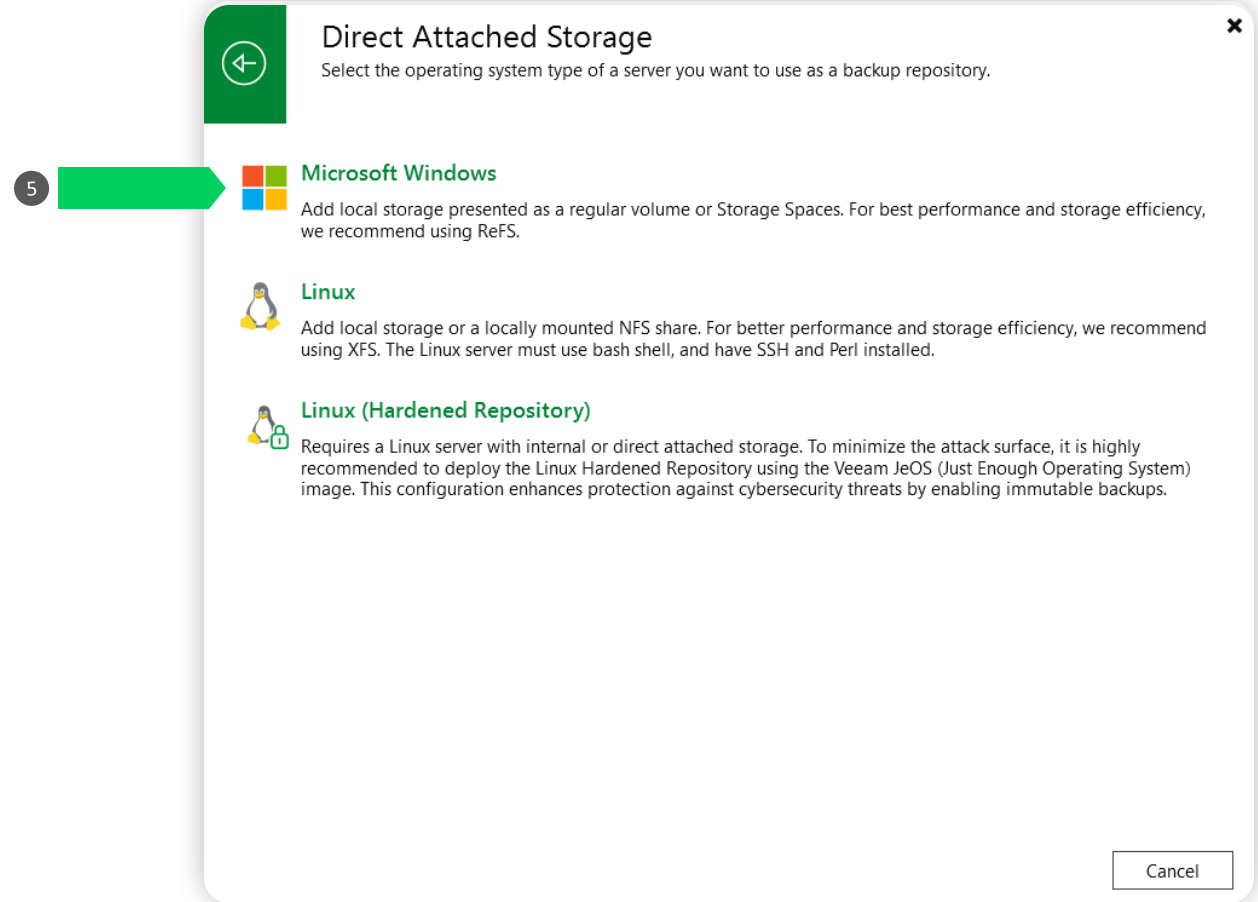
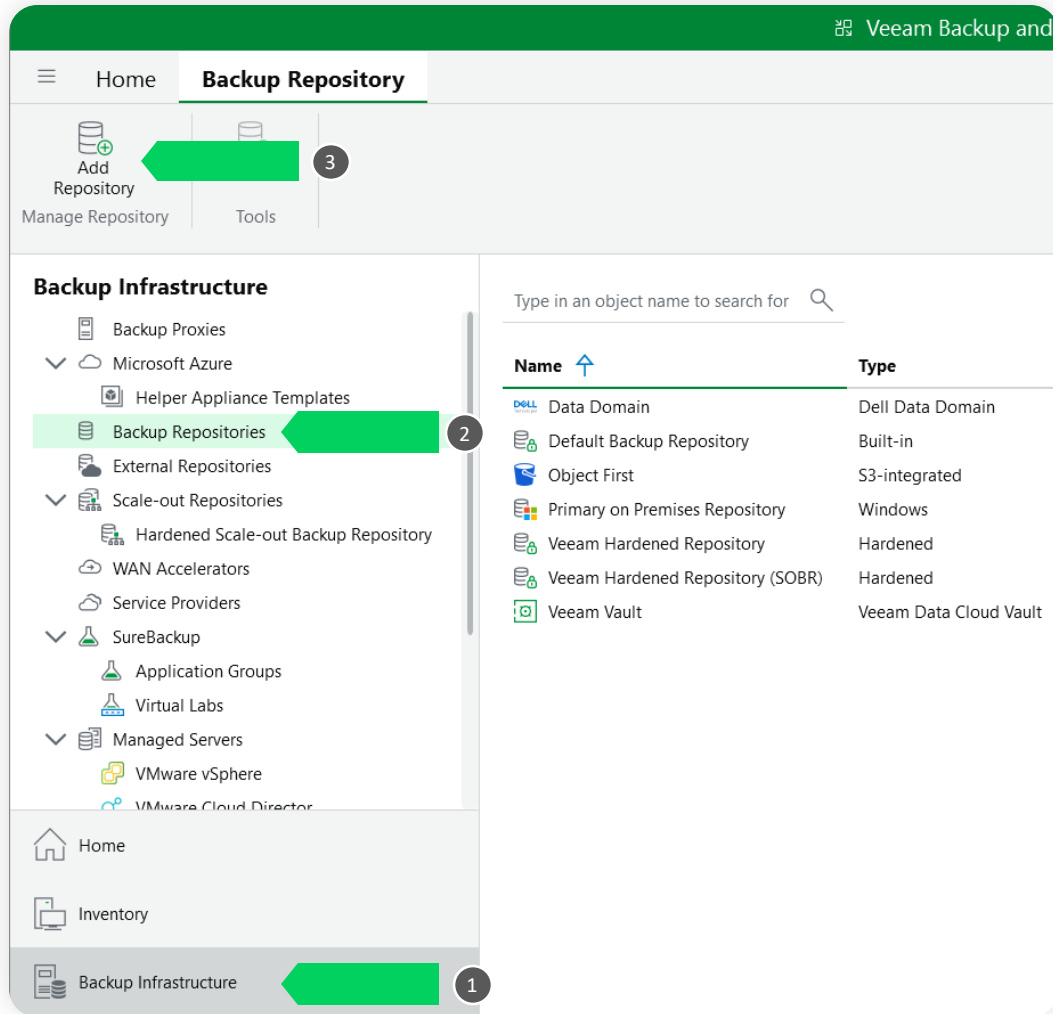
< Previous Next > Finish Cancel



Wie fügt man ein Backup-Repository hinzu?

Architektur & Kernkomponenten

Wie fügt man ein Repository hinzu? Beispiel für Direct Attached Storage.



Architektur & Kernkomponenten

Wie fügt man ein Repository hinzu? Beispiel für Direct Attached Storage.

New Backup Repository

Name

Server

Repository

Model

Review

Apply

Summary

1

Repository server:

HyperV-01

Add new...

Path	Capacity	Free
C:\	99.1 GB	6.4 GB
V:\	1024 GB	664.1 GB

2

Populate

< Previous

Next >

Finish

Cancel

Architektur & Kernkomponenten

Wie fügt man ein Repository hinzu? Beispiel für Direct Attached Storage.

New Backup Repository

Name

Server

Repository

Mount Servers

Review

Apply

Summary

Repository

Type in path to the folder where backup files should be stored, and set repository load control options.

Location

Path to folder: C:\Backups Browse...

Unknown capacity Populate

Load control

Running too many concurrent tasks against the repository may reduce overall performance, and cause I/O timeouts. Control storage device saturation with the following settings:

☒ Limit maximum concurrent tasks to: 8

☐ Limit read and write data rate to: 1 MB/s

[Customize repository settings...](#)

< Previous Next > Finish Cancel

Storage Compatibility Settings

☒ **Align backup file data blocks (recommended)**
Significantly improves backup and restore performance while reducing storage CPU usage by avoiding unaligned I/O. Increases backup size by less than 2%.

☐ **Decompress backup file data blocks before storing**
Source data mover compresses data according to the backup job compression settings to minimize LAN traffic. Uncompressing the data before storing allows for better deduplication ratio on most deduplicating storage appliances.

☐ **This repository is backed by rotated drives**
Backup jobs pointing to this repository will tolerate the disappearance of previous backups by creating a new full, and track the repository volume location across unintentional drive letter changes.

When a drive is changed: Continue existing backup chains (if present)

OK Cancel

Architektur & Kernkomponenten

Wie fügt man ein Repository hinzu? Beispiel für Direct Attached Storage.

The screenshot shows the 'New Backup Repository' wizard in Veeam Backup & Replication. The 'Mount Servers' step is active, indicated by a green bar in the left sidebar. The sidebar also shows 'Name', 'Server', 'Repository', 'Review', 'Apply', and 'Summary'. The main area is titled 'Mount Servers' and contains instructions: 'Specify servers to mount backups to when performing advanced restores (file, application item and instant VM recoveries). Instant recoveries require a write cache folder to store changed disk blocks in.' Below this, it says 'Designating platform-specific mount servers enables support for additional file systems and advanced file system functionality for file-level and application item-level restores.' There are two sections: 'Windows mount server:' with a dropdown menu showing 'HyperV-01' and an 'Add new...' button; and 'Linux mount server:' with a dropdown menu showing 'vbr-02.usdemo.veeam.local (Backup server)' and an 'Add new...' button. Both dropdowns have a green arrow pointing to them. Below each dropdown is a 'Configure settings' link. At the bottom of the wizard are buttons: '< Previous', 'Next >', 'Finish', and 'Cancel'. The 'Next >' button is highlighted with a green border.

New Backup Repository

Name

Server

Repository

Mount Servers

Specify servers to mount backups to when performing advanced restores (file, application item and instant VM recoveries). Instant recoveries require a write cache folder to store changed disk blocks in.

Designating platform-specific mount servers enables support for additional file systems and advanced file system functionality for file-level and application item-level restores.

Windows mount server:

HyperV-01

Add new...

Configure settings

Linux mount server:

vbr-02.usdemo.veeam.local (Backup server)

Add new...

Configure settings

< Previous Next > Finish Cancel

The screenshot shows the 'Mount Server Settings' dialog box. It has a title bar with a close button. The main content area has a checkbox labeled 'Enable vPower NFS service on the mount server (recommended)' which is checked. To the right of this checkbox is a 'Ports...' link. Below this, there is a text description: 'Unlocks instant recovery of any backup (physical, virtual or cloud) to a VMware vSphere VM. vPower NFS service is not used for instant recovery to a Microsoft Hyper-V VM.' Below this is a section for 'Instant recovery write cache folder:' with a text input field containing '/var/lib/veeamdata/veeam/IRCache/' and a 'Browse...' button. Below this is a paragraph: 'Ensure that the selected volume has sufficient free disk space to store changed disk blocks of instantly recovered machines. We recommend placing the write cache folder on an SSD drive.' At the bottom right are 'OK' and 'Cancel' buttons.

Mount Server Settings

☒ Enable vPower NFS service on the mount server (recommended) Ports...

Unlocks instant recovery of any backup (physical, virtual or cloud) to a VMware vSphere VM. vPower NFS service is not used for instant recovery to a Microsoft Hyper-V VM.

Instant recovery write cache folder: /var/lib/veeamdata/veeam/IRCache/ Browse...

Ensure that the selected volume has sufficient free disk space to store changed disk blocks of instantly recovered machines. We recommend placing the write cache folder on an SSD drive.

OK Cancel



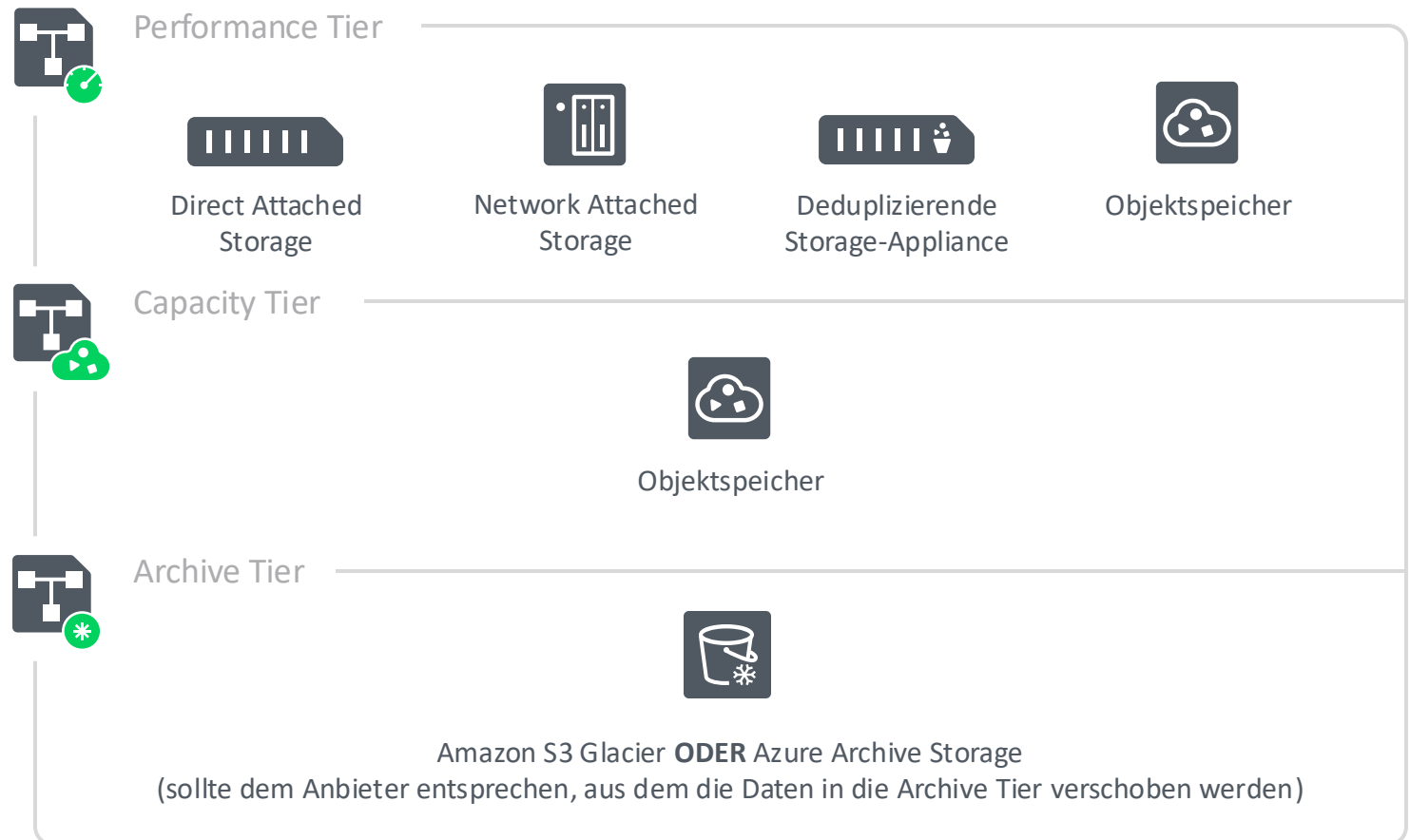
Scale-Out Backup Repository

Architektur & Kernkomponenten

Scale-Out Backup Repository

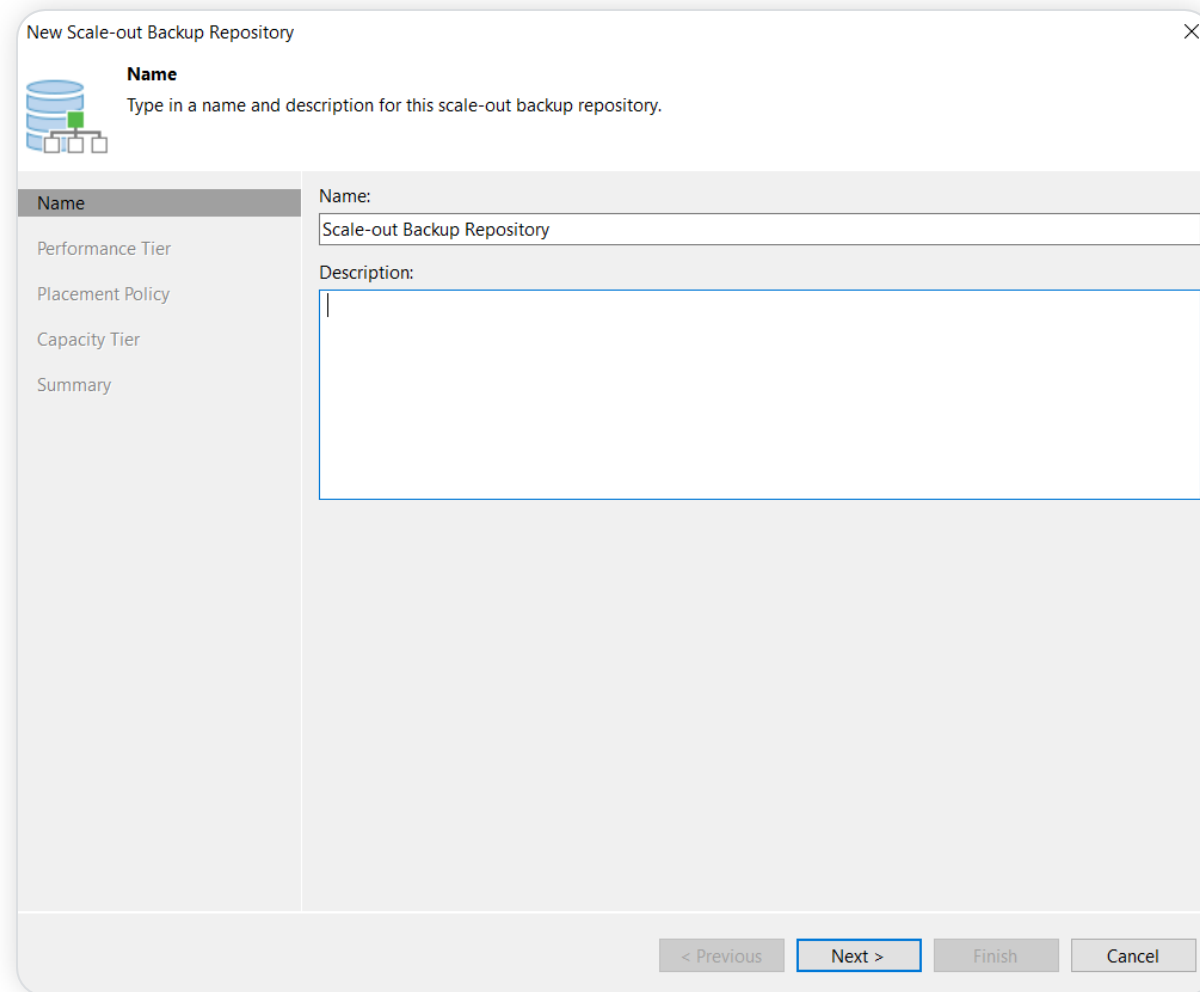
Ein skalierbares Repository-System mit Unterstützung für **Multi-Tier-Storage**.

Es umfasst eine **Performance** Tier (lokaler oder gemeinsam genutzter Speicher) und kann um **Capacity**- und **Archive**-Tiers erweitert werden, was horizontale Skalierung für unterschiedliche Speicheranforderungen ermöglicht.



Architektur & Kernkomponenten

Wie richtet man ein Scale-Out Backup Repository ein bzw. fügt es hinzu?



New Scale-out Backup Repository

Name
Type in a name and description for this scale-out backup repository.

Name

- Performance Tier
- Placement Policy
- Capacity Tier
- Summary

Name:
Scale-out Backup Repository

Description:

< Previous Next > Finish Cancel

Architektur & Kernkomponenten

Wie richtet man ein Scale-Out Backup Repository ein bzw. fügt es hinzu?

[illegible]

×

Select backup repositories to include in this scale-out backup repository.

Backup repositories:

Name	Type
<input type="checkbox"/> Dell Data Domain	Dell Data Domain
<input type="checkbox"/> Default Backup Repository	Built-in
<input type="checkbox"/> Object First	S3-integrated
<input type="checkbox"/> Primary on Premises Repository	Windows
<input type="checkbox"/> Veeam Hardened Repository	Hardened
<input type="checkbox"/> Veeam Vault	Veeam Data Cloud ...

Add...

Select All

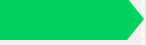
Clear All

Architektur & Kernkomponenten

Wie richtet man ein Scale-Out Backup Repository ein bzw. fügt es hinzu?

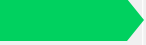
Edit Scale-out Backup Repository

Placement Policy
Choose a backup files placement policy for this performance tier. When more than one extent matches the placement policy, backup job will choose the extent with the most free disk space available.

Name 

Performance Tier

Placement Policy


Capacity Tier 

Archive Tier

Summary

☒ **Data locality**
All dependent backup files are placed on the same extent. For example, incremental backup files will be stored together with the corresponding full backup file. However, the next full backup file can be created on another extent (except extents backed by a deduplicating storage).

☐ **Performance**
Incremental backup files are placed on a different extent from the corresponding full backup file, providing for better backup file transformation performance with raw storage devices. Note that losing an extent with a full backup makes restoring from increments impossible.

Specify the placement policy for full and incremental backup files. [Customize...](#) 

☐ **Strict placement policy enforcement**
By default, whenever we are unable to place a new backup according to the policy, we will violate it to ensure a backup could still be created. Select this option if you'd rather have backup jobs fail in such circumstances instead.

[< Previous](#) [Next >](#) [Finish](#) [Cancel](#)

Backup Placement Settings

Extents:

Name	Allowed backups
Veeam Hardened Repository	All backups
Veeam Hardened Repository (SO...	All backups

[Edit...](#)

Veeam Hardened Repository Extent Settings

Allowed backup files:

- ☒ Full backup files
- ☒ Incremental backup files

[OK](#) [Cancel](#)


[OK](#) [Cancel](#)

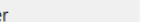
Architektur & Kernkomponenten


Wie richtet man ein Scale-Out Backup Repository ein bzw. fügt es hinzu?

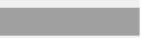
Edit Scale-out Backup Repository


Capacity Tier
Specify object storage to copy backups to for redundancy and DR purposes. Older backups can be moved to object storage completely to reduce long-term retention costs while preserving the ability to restore directly from offloaded backups.

Name  ☒ Extend scale-out backup repository capacity with object storage:

Performance Tier  <Click Choose to pick object storage> Choose...

Placement Policy  ☐ Copy backups to object storage as soon as they are created
Create additional copy of your backups for added redundancy by having all backups copied to the capacity tier as soon as they are created on the performance tier.

Capacity Tier  ☒ Move backups to object storage as they age out of the operational restore window
Reduce your long-term retention costs by moving older backups to object storage completely while preserving the ability to restore directly from offloaded backups.
Move backup files older than 14 days (your operational restore window) Override...

 ☒ Encrypt data uploaded to object storage
Password: Select an existing password or add new Add...
[Manage passwords](#)

Offload window: Any time Health check: Monthly

< Previous Apply Finish Cancel

Override

☒ Move oldest backup files sooner if scale-out backup repository is reaching capacity

Offload until used space is below: 90 %

OK Cancel

Veeam Data Cloud Vault

Ein vollständig verwalteter, sicherer Cloud-Objektspeicher, der unvorhersehbare Cloud-Kostenmodelle eliminiert.



Veeam Data Cloud Vault – Überblick

Vollständig verwaltet

Eliminiert laufenden Wartungsaufwand – ohne jegliche Konfigurations-, Verwaltungs- oder Integrationsaufwände.

Sicher

Unveränderbarkeit verhindert, dass Angreifer Ihre Backups verschlüsseln, löschen oder manipulieren. Daten sind sowohl bei der Übertragung als auch im Ruhezustand verschlüsselt.

Haltbar

Synchrone Kopien gewährleisten bis zu 12 Neuen an Haltbarkeit und schützen vor Ausfällen und Störungen.

Vorhersehbare Kosten

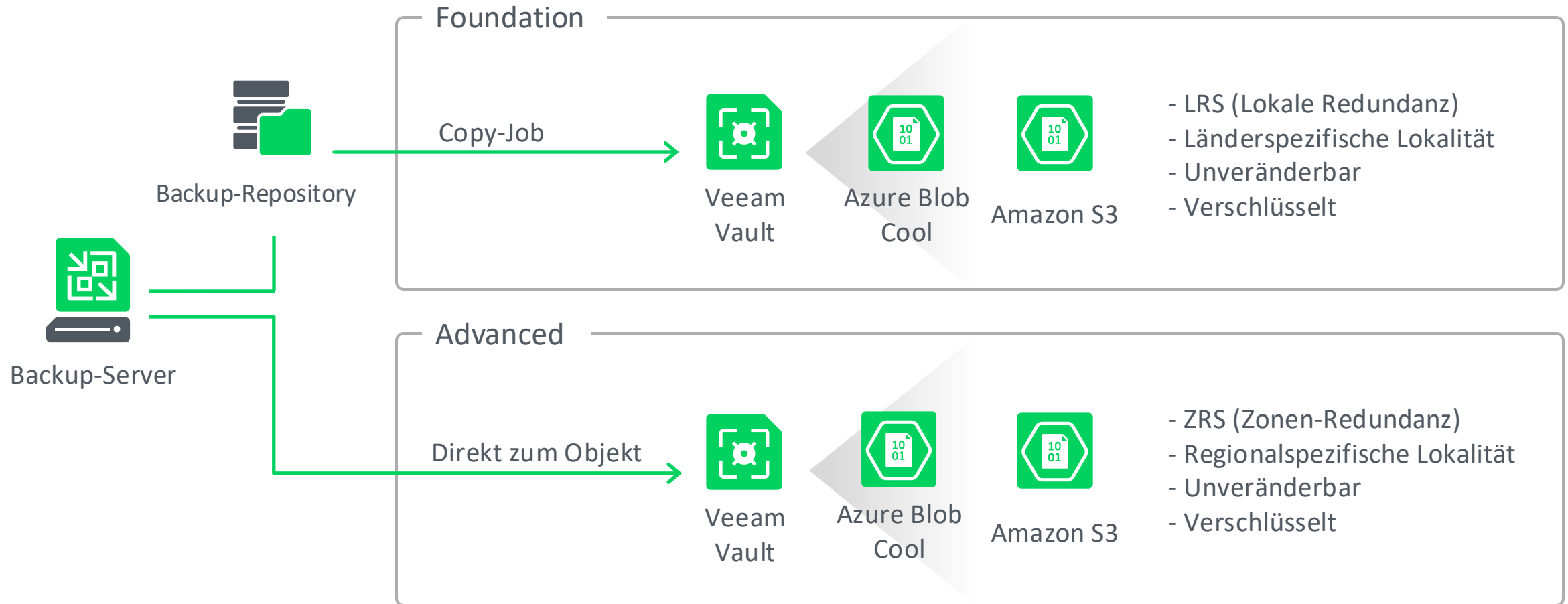
Beinhaltet Speicher, API-Aufrufe für Schreiben und Lesen sowie Egress-Gebühren – und verhindert so unerwartete Kosten.

Veeam Vault Editionen – Vergleich

	Foundation	Advanced
Einsatzfall	Sekundäre Backups*	Primäre oder sekundäre Backups
Haltbarkeit	LRS 11 Neunen an Haltbarkeit Resistent gegenüber Laufwerksausfällen	ZRS Bis zu 12 Neunen an Haltbarkeit Resistent gegenüber Ausfällen eines gesamten Rechenzentrums
Lesen/Wiederherstellen	Fair Use Bis zu 20 % pro Jahr der Gesamtkapazität	Unbegrenzt
Standort der Daten	Sie geben das Land an	Sie geben die Region an
Unveränderbar	Ja	Ja
Verschlüsselt	Ja	Ja

*Ein Backup Copy Job wird mit Foundation empfohlen. Direct to Object ist mit Foundation ebenfalls möglich, allerdings besteht das Risiko zusätzlicher Kosten aufgrund der 20%-Fair-Use-Richtlinie.

Veeam Vault Foundation vs. Advanced Anwendungsfälle




Veeam Vault


Kann über den Assistenten „Backup-Repository hinzufügen“ hinzugefügt werden

Add Backup Repository


Select the type of backup repository you want to add.

**Direct attached storage**


Microsoft Windows or Linux server with internal or direct attached storage. This configuration enables data movers to run directly on the server, allowing for fastest performance.

**Network attached storage**


Network share on a file server or a NAS device. When backing up to a remote share, we recommend that you select a gateway server located in the same site with the share.

**Deduplicating storage appliance**

Dell Data Domain, ExaGrid, Fujitsu ETERNUS CS800, HPE StoreOnce, Infinidat InfiniGuard or Quantum DXi. If you are unable to meet the requirements of advanced integration via native appliance API, use the network attached storage option instead.

**Object storage**


On-prem object storage system or a cloud object storage provider.

**Veeam Data Cloud Vault**

Add fully managed, secure cloud object storage from Veeam. Cloud Vault is best suited for secondary backups. For more information and pricing, please go to vee.am/vault.

Cancel

New Object Storage Repository

**Account**

Specify account to use for connecting to Veeam Data Cloud Vault.

Name	Authorization status:
Account	✓ Backup server is authorized Authorize...
Folder	
Mount Server	Vault: <div>vdcvault8922471264543644 - (Advanced - Core) Manage...</div>
Review	
Apply	
Summary	

Connection mode:
Direct

Choose...

Specify whether object storage should be accessed directly or via selected gateway servers.

< Previous

Next >

Finish

Cancel



SureBackup, SureReplica & Virtual Lab

Erweiterte Funktionen

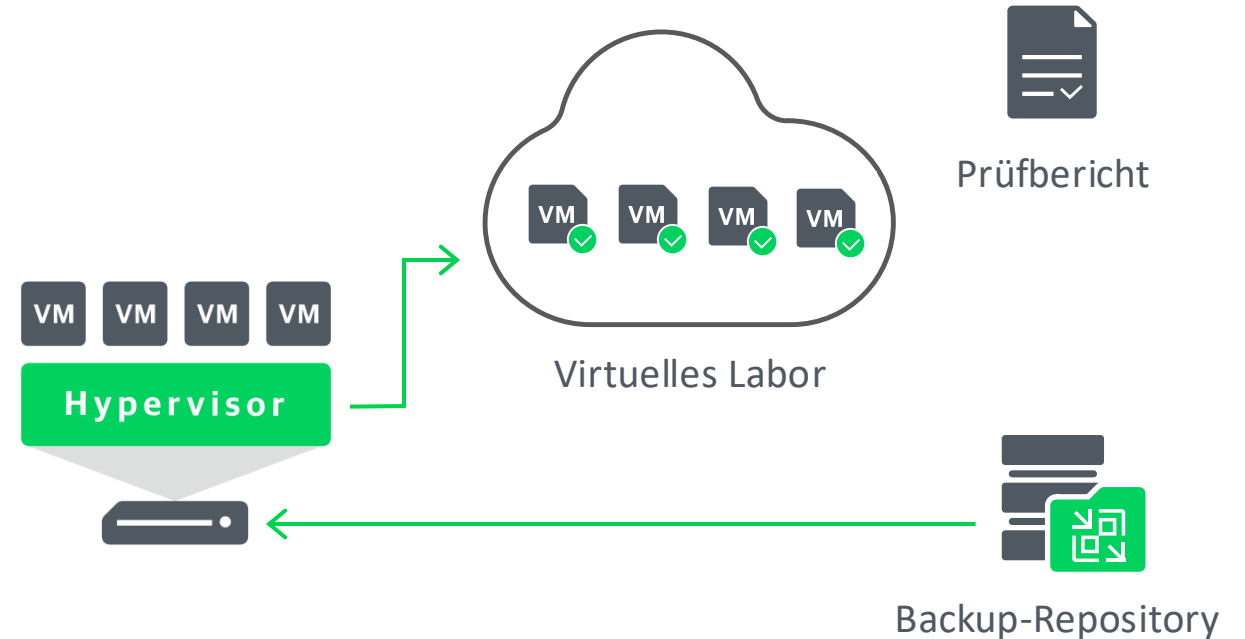
SureBackup, SureReplica & On-Demand Sandbox

SureBackup

Ermöglicht die automatische Durchführung von Wiederherstellbarkeitstests, Überprüfungen und Inhaltsscans für erfolgreich durchgeführte Backups.

Wie?

1. Startet VMs in einer isolierten virtuellen Laborumgebung.
2. Führt eine Reihe von Tests durch.
3. Sendet einen Statusbericht an die angegebene Mailbox.



Erweiterte Funktionen

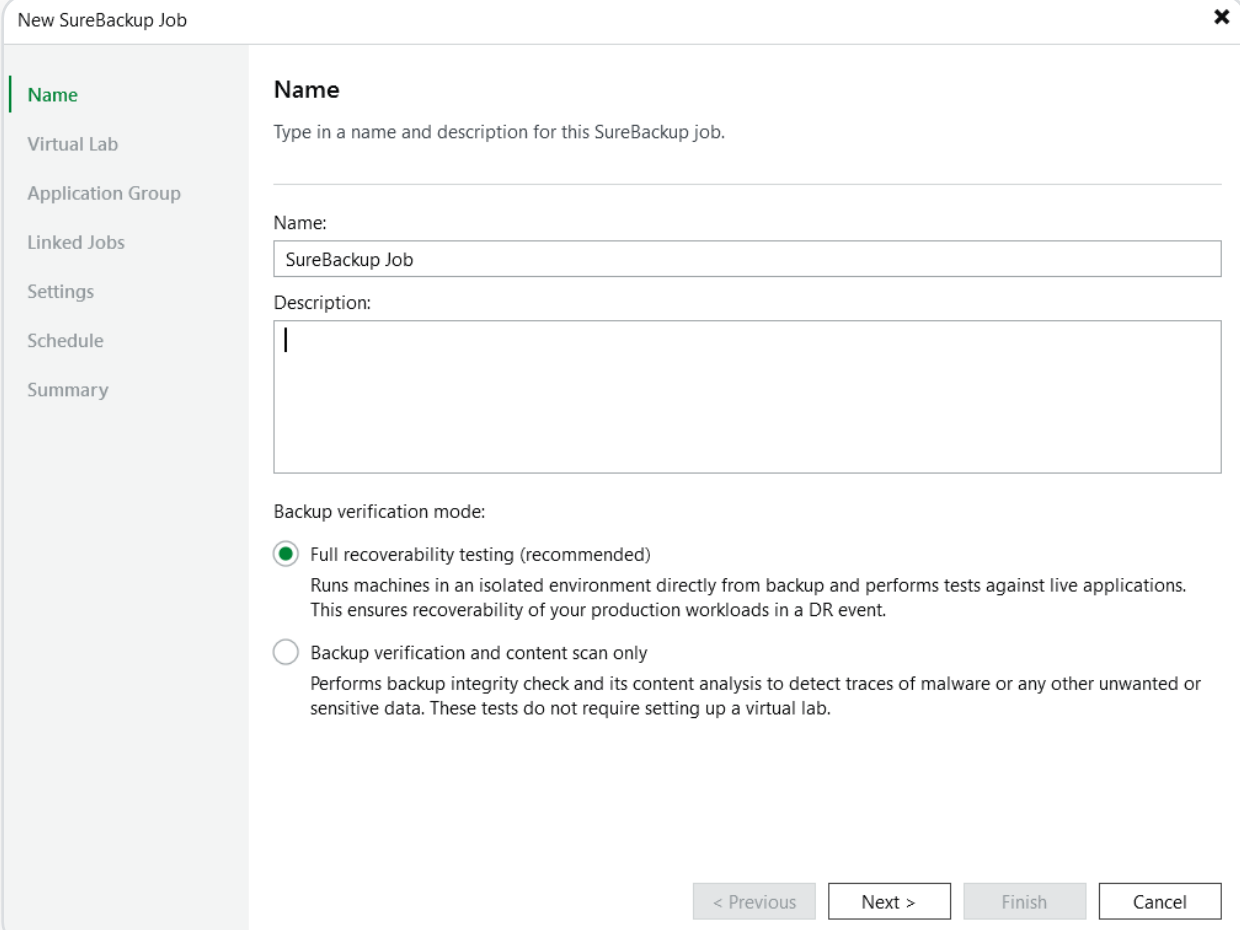
SureBackup-Prüfungsmodi

Umfassende Wiederherstellbarkeitstests

Veeam Backup & Replication veröffentlicht die Maschinen in der isolierten Umgebung und führt die Verifizierung gemäß den ausgewählten Skripten durch.

Nur Backup-Verifizierung und Inhaltsanalyse

Ohne die Maschinen in einer virtuellen Laborumgebung bereitzustellen, führt Veeam Backup & Replication eine Integritätsprüfung des Backups sowie eine Inhaltsanalyse durch, um Spuren von Malware oder anderen unerwünschten bzw. sensiblen Daten zu erkennen.



New SureBackup Job

Name

Type in a name and description for this SureBackup job.

Name:

SureBackup Job

Description:

Backup verification mode:

☒ Full recoverability testing (recommended)
Runs machines in an isolated environment directly from backup and performs tests against live applications. This ensures recoverability of your production workloads in a DR event.

☐ Backup verification and content scan only
Performs backup integrity check and its content analysis to detect traces of malware or any other unwanted or sensitive data. These tests do not require setting up a virtual lab.

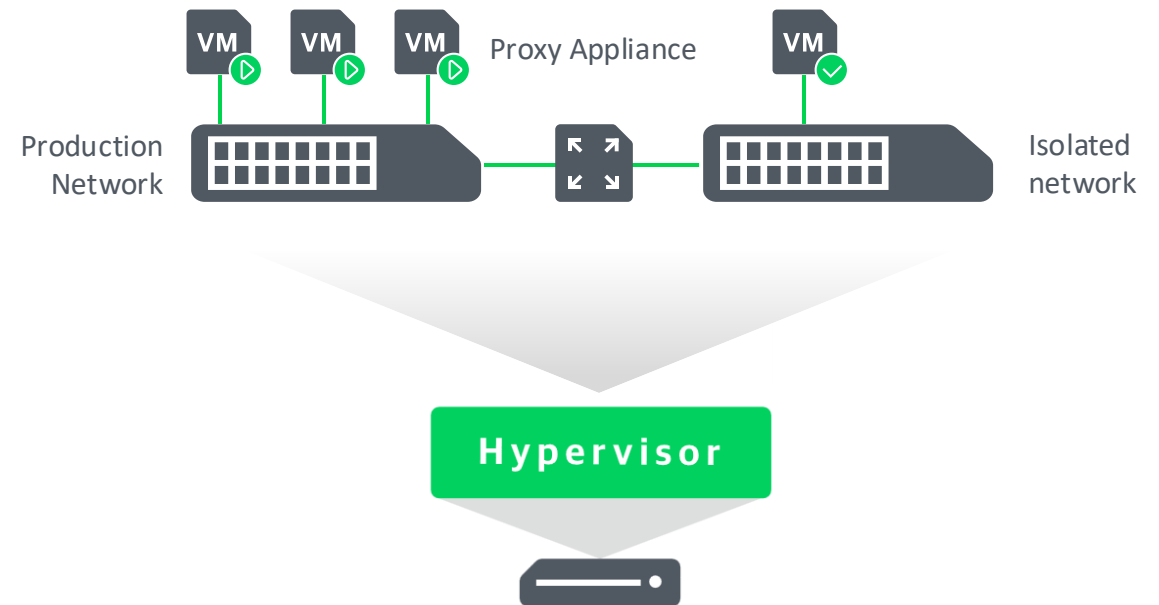
< Previous Next > Finish Cancel

Erweiterte Funktionen

On-Demand Sandbox

Starten Sie jederzeit eine Kopie Ihrer Produktionsumgebung für eine Vielzahl von **Test-, Sicherheits-, Schulungs-** oder **Fehlerbehebungs**zwecken.

Alle an VMs vorgenommenen Änderungen werden in Redo-Logs (für VM-Backups und Speicher-Snapshots) oder in Delta-Dateien (für VM-Replikate) gespeichert. Redo-Logs und Delta-Dateien werden gelöscht, nachdem Sie die Arbeit mit der On-Demand-Sandbox beendet und sie ausgeschaltet haben.



Integration von Speicherlösungen



Integration von Speicherlösungen

Integrationstypen

Vmware-Integration

Sicherung von VMware vSphere-VMs.

Snapshots über Speicher-Arrays orchestrieren.

Wiederherstellung von Daten aus Speicher-Snapshots mit Veeam Backup & Replication.

NAS-Integration

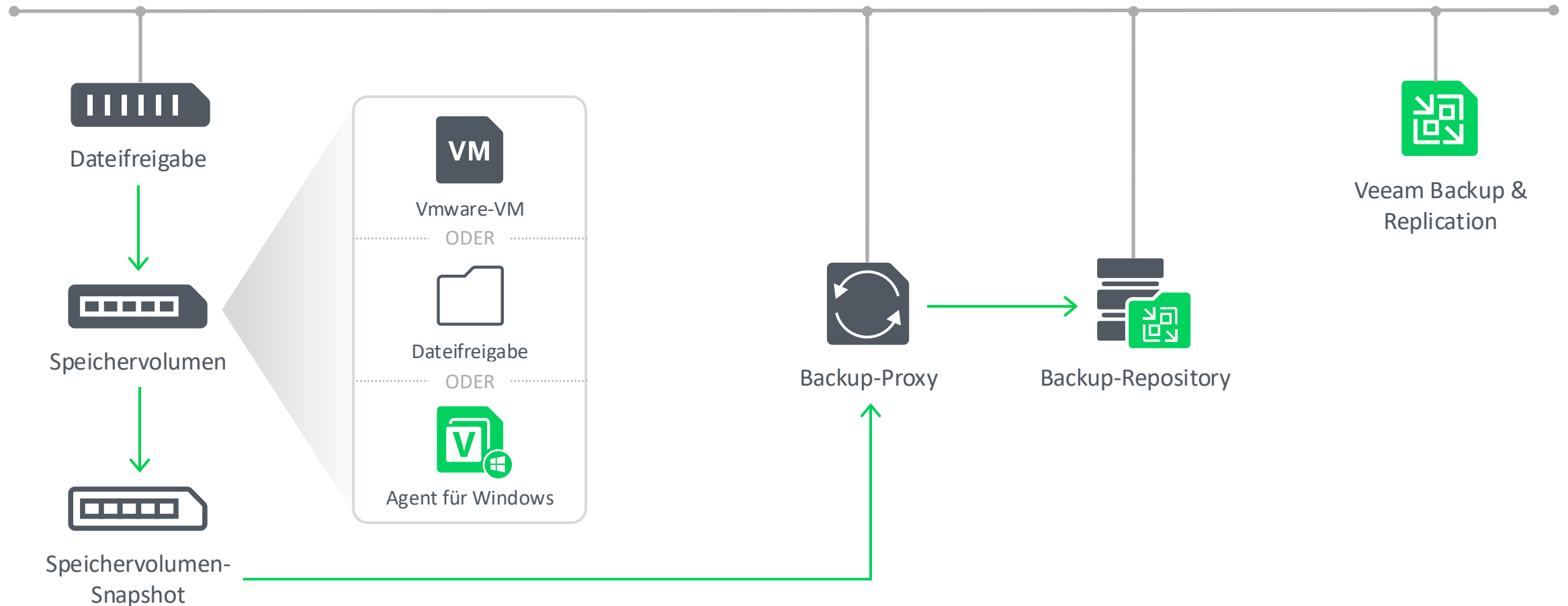
NAS-Dateifreigaben mühelos sichern.

Veeam Agent für Windows-Integration

Veeam Agent-Backups für Windows-Computer erstellen.

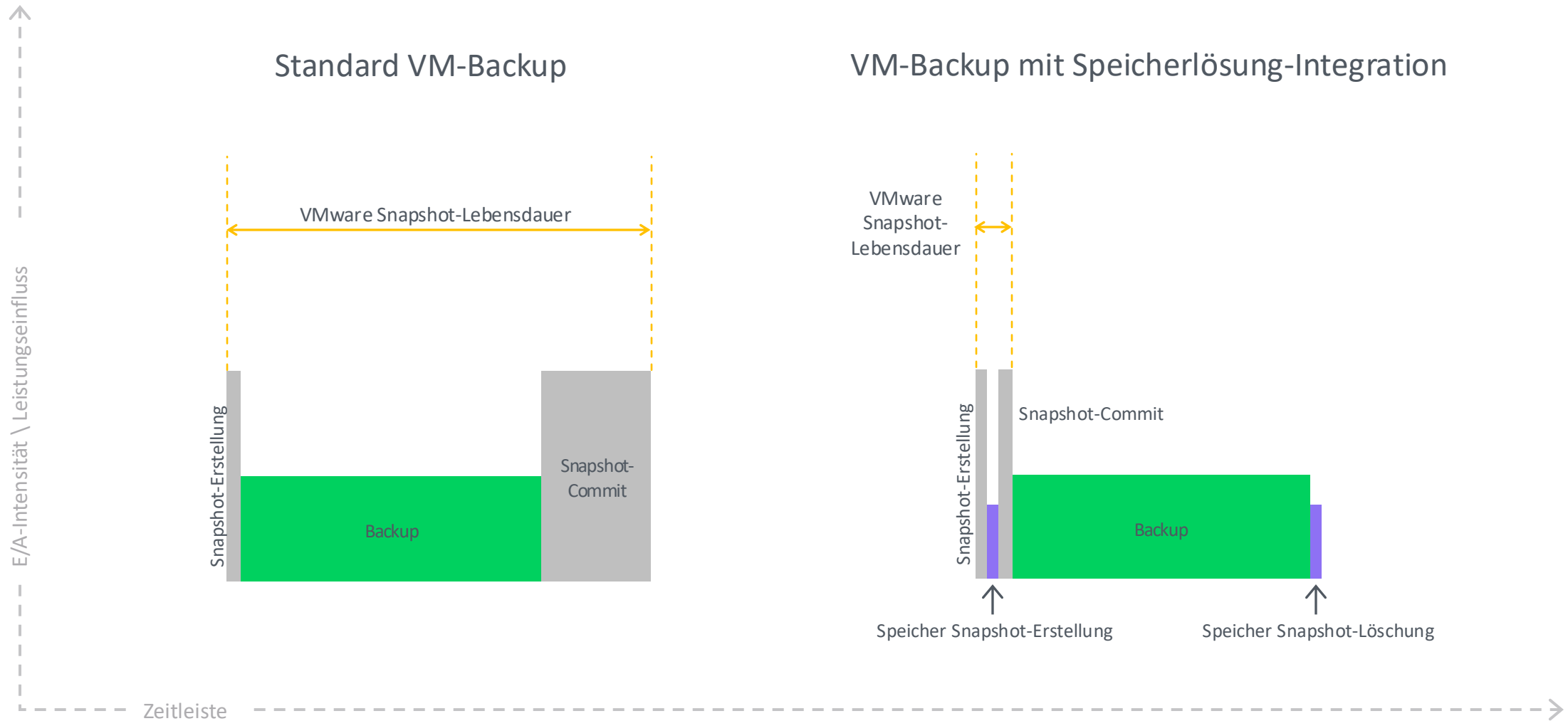
Integration von Speicherlösungen

Infrastruktur Überblick



VMware-Integration

Zeitleiste Darstellung



Integration von Speicherlösungen

Wie konfiguriert man?

3

Veeam Backup and Replication

Home Storage Veeam Intelligence

Add Storage Edit Storage Remove Storage Rescan Actions

Manage Storage

Storage Infrastructure

Storage Infrastructure 2

Add Storage

Veeam Backup & Replication integrates with the leading primary storage arrays to enable backup and restore of individual machines, VM disks, file shares, guest files and application items from storage snapshots of VMFS, NFS and CIFS volumes (including volumes replicated to secondary storage arrays). Veeam provides the Universal Storage API that allows all qualified storage vendors to integrate their storage arrays with this functionality. To start using this functionality, register your storage by clicking this text. If you don't see your storage in the list, please check with your vendor for available plug-in.

Take a Snapshot

Set up periodic storage-level snapshots of your VMFS or NFS datastores using the storage management console. The storage will automatically create periodic snapshots of your datastores with little to no impact on your production environment, providing additional frequent restore points ideal for recovery from disasters caused by user errors. For evaluation purposes, you can create an ad hoc storage snapshot by selecting the desired LUN in the Storage Infrastructure tree, and clicking the corresponding button in the ribbon.

Restore

To perform a restore from a storage snapshot, browse to the desired snapshot on the Storage Infrastructure tab, and select the VM you want to restore. You can restore the entire VM, VM disks, individual guest files or individual Microsoft Active Directory, Microsoft Exchange, Microsoft SharePoint, Microsoft SQL Server, Oracle and PostgreSQL application items. Keep in mind that storage snapshots are not real backups, as they would be lost along with production data in the event of a storage disaster. Thus, you should never rely solely on storage snapshots for data protection. To ensure protection against all types of disasters, please follow the 3-2-1 rule and create real, independent backups to a different storage device using backup job.

Backup

1


Enterprise Plus edition enables backup of virtual machines, physical servers and file shares directly from primary storage snapshots. This functionality puts your storage array capabilities to work, allowing for improved recovery point objectives (RPO) while greatly reducing impact from backup activities on the production environment.

Integration von Speicherlösungen


Wie konfiguriert man?

Add Storage


Select a vendor of your primary storage system. You can see and manage all already registered storage systems on the Storage Infrastructure tab.




Cisco HyperFlex
Add Cisco HyperFlex systems (HX-Series).




Dell Technologies
Adds Dell PowerScale (formerly Isilon), Dell PowerMax, Dell PowerStore, Dell SC Series or Dell Unity storage array.




Hewlett Packard Enterprise
Adds HPE Alletra, HPE Primera, HPE Nimble or HPE XP storage.




IBM FlashSystem
Adds IBM FlashSystem (Storwize), IBM SAN Volume Controller (SVC) and systems based on IBM Spectrum Virtualize software, including IBM/Cisco VersaStack. Fibre Channel (FC) and iSCSI connectivity is supported.



Lenovo ThinkSystem DM/DG Series
Adds Lenovo ThinkSystem DM/DG Series storage. VMware integration (Windows only) supports Fibre Channel (FC), iSCSI and NFS protocols. NAS backup integration supports SMB and NFS protocols.



NetApp
Adds NetApp ONTAP or NetApp Element (SolidFire) storage.



Nutanix

Cancel

Folgen Sie dem Assistenten, um den Speicher hinzuzufügen:

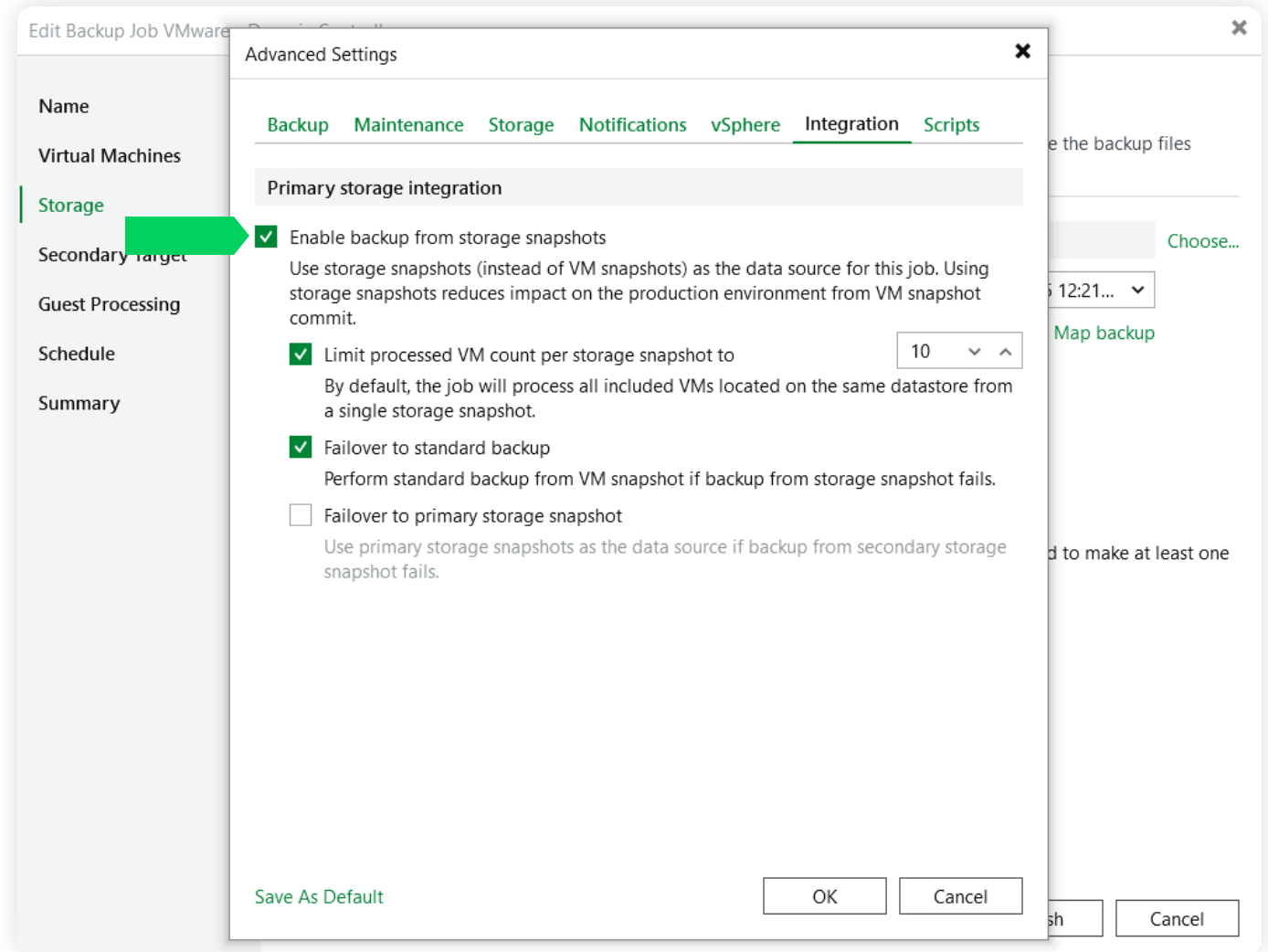
- Speichertyp auswählen
- IP Verbindung per DNS oder IP herstellen
- Rolle auswählen
 - Block- oder Dateispeicher für VMware
 - Veeam Agent für Windows
 - NAS-Filer
- Anmeldedaten für den Zugriff auf den Speicher hinzufügen
- Zu verwendende Protokolle auswählen

Integration von Speicherlösungen

Die Registerkarte **Integration** in den Einstellungen des Backup-Jobs ermöglicht festzulegen, ob die Backup-from-Storage-Snapshot-Technologie zur Erstellung des Backups verwendet werden soll. Sie ist **standardmäßig aktiviert**.

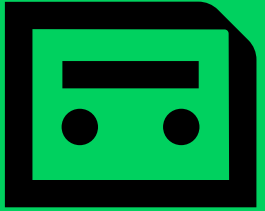
Backup from Storage Snapshots ermöglicht die Nutzung von Speichersnapshots für die Verarbeitung von VM-Daten.

Die Technologie **verbessert die RPOs und reduziert die Auswirkungen der Backup-Aktivitäten** auf die Produktionsumgebung



Band (kurz)





Band

Veeam Backup & Replication unterstützt native Bandoperationen.

Unterstützte Bandgeräte: Linear Tape-Open (LTO3 – LTO10) und IBM 3592 (TS1160 & TS1170) Bibliotheken.

Zweck: langfristige Datenarchivierung und/oder Compliance-Anforderungen.

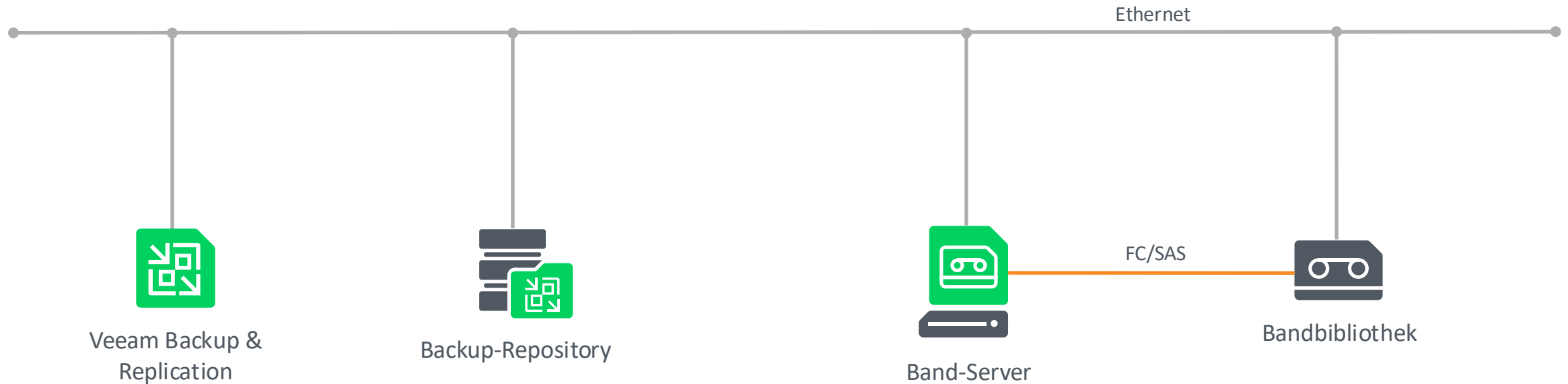
Backup-Strategie: Hält sich an das 3-2-1-Backup-Prinzip: 3 Kopien, 2 unterschiedliche Medientypen, 1 externer Standort.

Unterstützte Datentypen für Archivierung:

- VM-Backups
- Veeam Agent-Backups
- Vollständige Backup-Repositories, einschließlich Hardened Linux Repositories
- Unstrukturierte Daten:
 - Speichergeräte-Volumes über NDMP
 - SMB- und NFS-Dateifreigaben
 - Objektspeicher

Band

Infrastruktur Überblick





WAN Accelerator

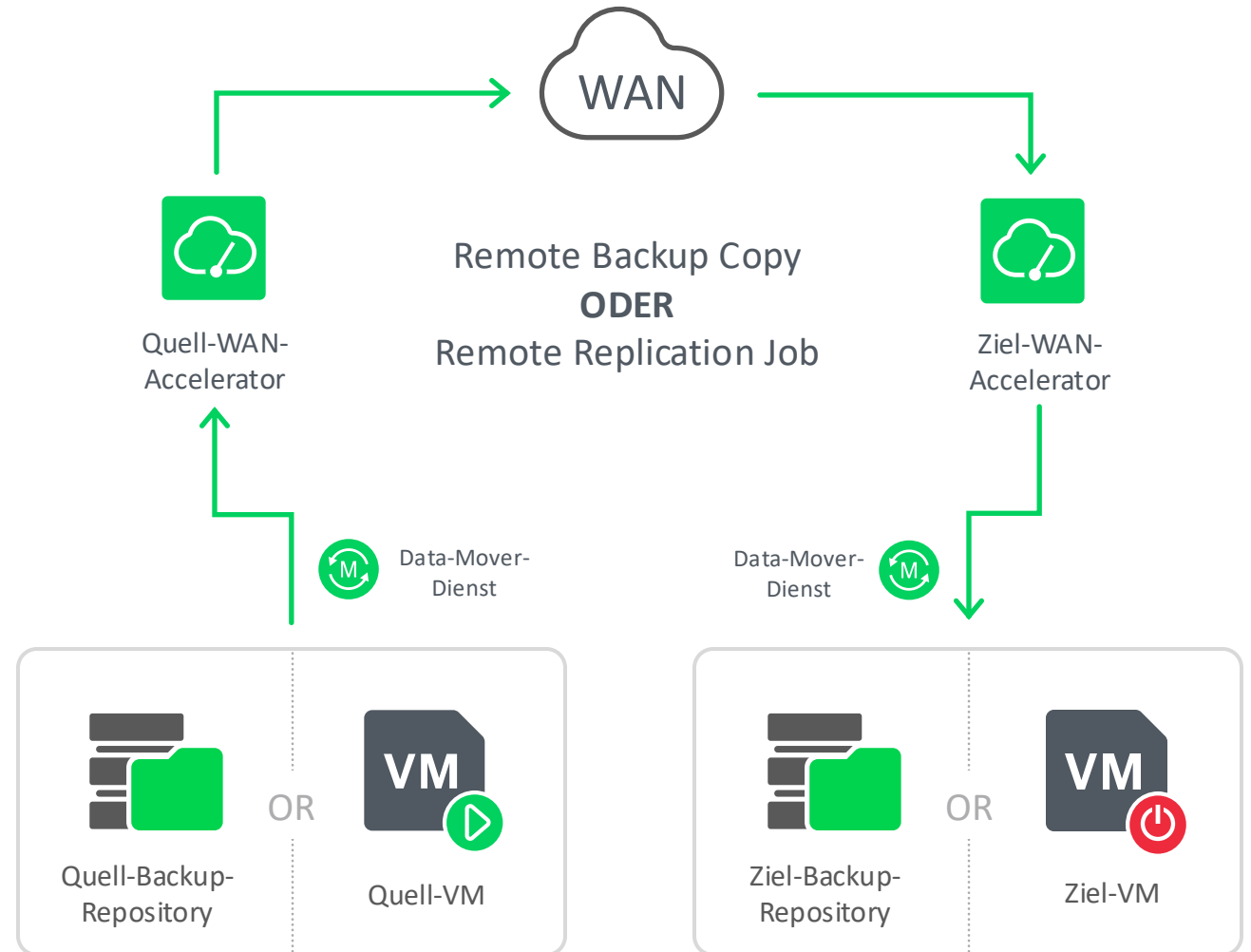
WAN Accelerator

Veeam Backup & Replication bietet eine WAN-Beschleunigungstechnologie, die Folgendes kombiniert:

- Komprimierung des Netzwerkverkehrs
- Multi-Streaming-Upload
- Globale Deduplizierung
- Deduplizierung mit variabler Blockgröße

Diese Kombination reduziert das zu übertragende Datenvolumen und ermöglicht dadurch einen schnelleren Datentransport.

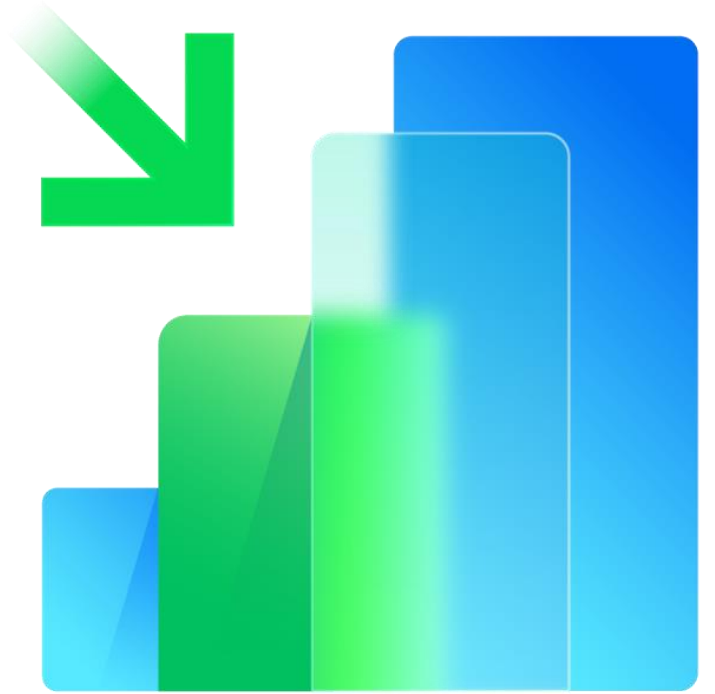
- **High Bandwidth Mode** ist für WAN-Verbindungen über 100 Mbit/s ausgelegt.
- **Low Bandwidth Mode** ist für WAN-Verbindungen unter 100 Mbit/s vorgesehen.



Machen wir eine
10-minütige Pause



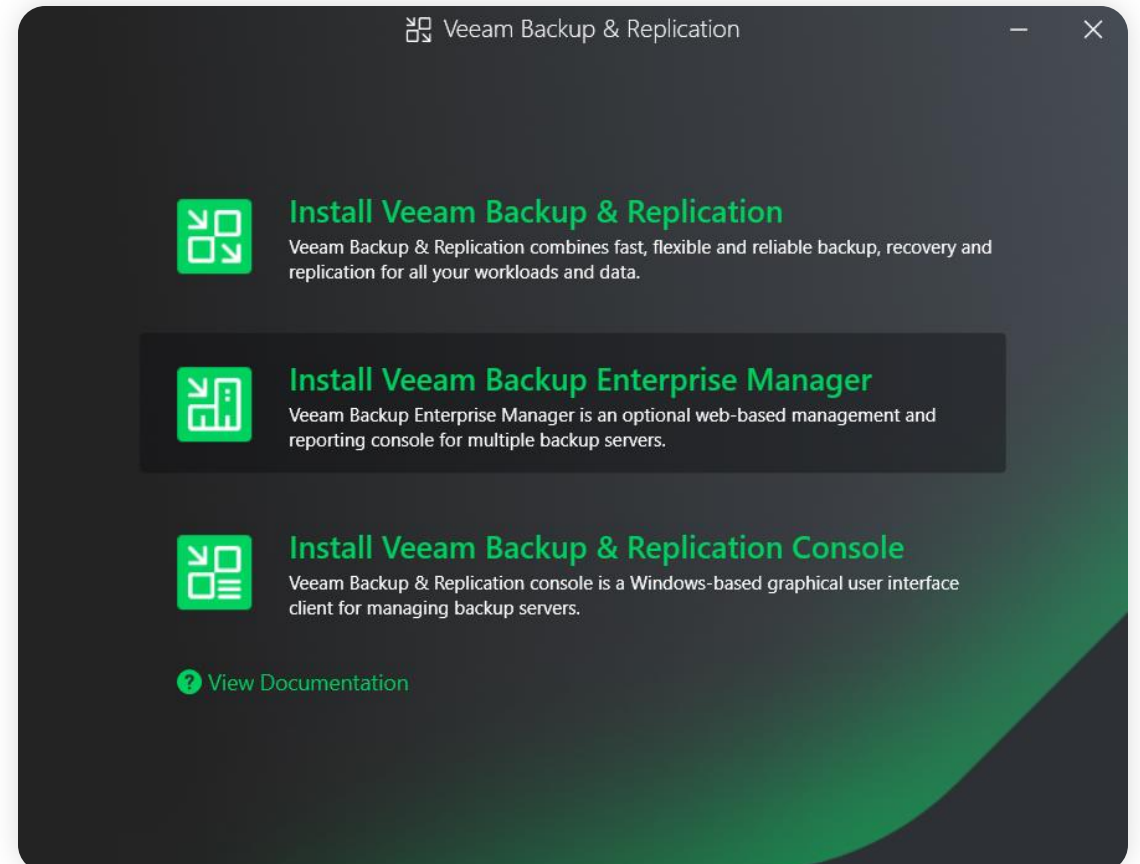
Enterprise Manager



Veeam Enterprise Manager

Installation

Veeam Enterprise Manager ist im selben ISO-Image enthalten wie Veeam Backup & Replication.



Veeam Enterprise Manager


Installation

Veeam Backup Enterprise Manager


License

Provide license file for Veeam Backup Enterprise Manager.

Select license provisioning method:

 [Sign in with Veeam](#)

 |

 [Browse to local license file](#)

License details:

Not selected

☒ Update license automatically (enables usage reporting)

Download and install new license automatically when you renew or expand your contract. This requires sending the license ID, the installation ID, and workload usage counters to Veeam servers periodically. Successful usage reporting doubles the number of workloads you can exceed your installed license by.

☒ Receive proactive support (enables usage reporting)

Proactive technical support service require sharing anonymized backup infrastructure telemetry with Veeam. For more information on what is being shared, please refer to the User Guide.

Back


Next

Cancel

Veeam Backup Enterprise Manager

System Configuration Check

System is being verified for potential installation problems.

 To finalize required components installation, system reboot is required. Installation process will continue automatically.

Requirement	Status
Microsoft .NET Framework 4.7.2	✓ Passed
Microsoft Visual C++ 2015-2019 Redistributable	⚠ Reboot required
Microsoft System CLR Types for SQL Server 2014	✓ Passed
IIS URL Rewrite Module 2	✓ Passed
Microsoft IIS	✓ Passed
Default Document Component	✓ Passed
Directory Browsing Component	✓ Passed
HTTP Errors Component	✓ Passed
Static Content Component	✓ Passed
Windows Authentication Component	✓ Passed
WebSocket Protocol Component	✓ Passed
ASP.NET 4.5 Component	✓ Passed


Back

Reboot

Cancel

Veeam Enterprise Manager



Installation

 Veeam Backup Enterprise Manager


Ready to Install

Installation will begin with the following settings.

Installation folder:	C:\Program Files\Veeam\Backup and Replication
Guest catalog folder:	C:\VBRCatalog
Service account:	LOCAL SYSTEM
Database engine:	PostgreSQL
Database name:	VeeamBackupReporting
Database server:	DC-01:5432
Catalog service port:	9393
Service port:	9394
Web UI ports:	9080 (HTTP), 9443 (HTTPS)
REST API service ports:	9399 (HTTP), 9398 (HTTPS)
Certificate:	Self-signed certificate will be generated automatically
Check for product updates:	Automatically

 Customize Settings 

BackInstallCancel

 Veeam Backup Enterprise Manager

Database

Choose a database engine and an instance for Veeam Backup Enterprise Manager configuration data.

Use following database engine: PostgreSQL

☒ Install new instance

☐ Use existing instance (HOSTNAME:PORT)

DC-01:5432

Database name:

VeeamBackupReporting

Connect to PostgreSQL server using:

☒ Windows authentication credentials of the backup service account

☐ Native authentication using the following credentials:

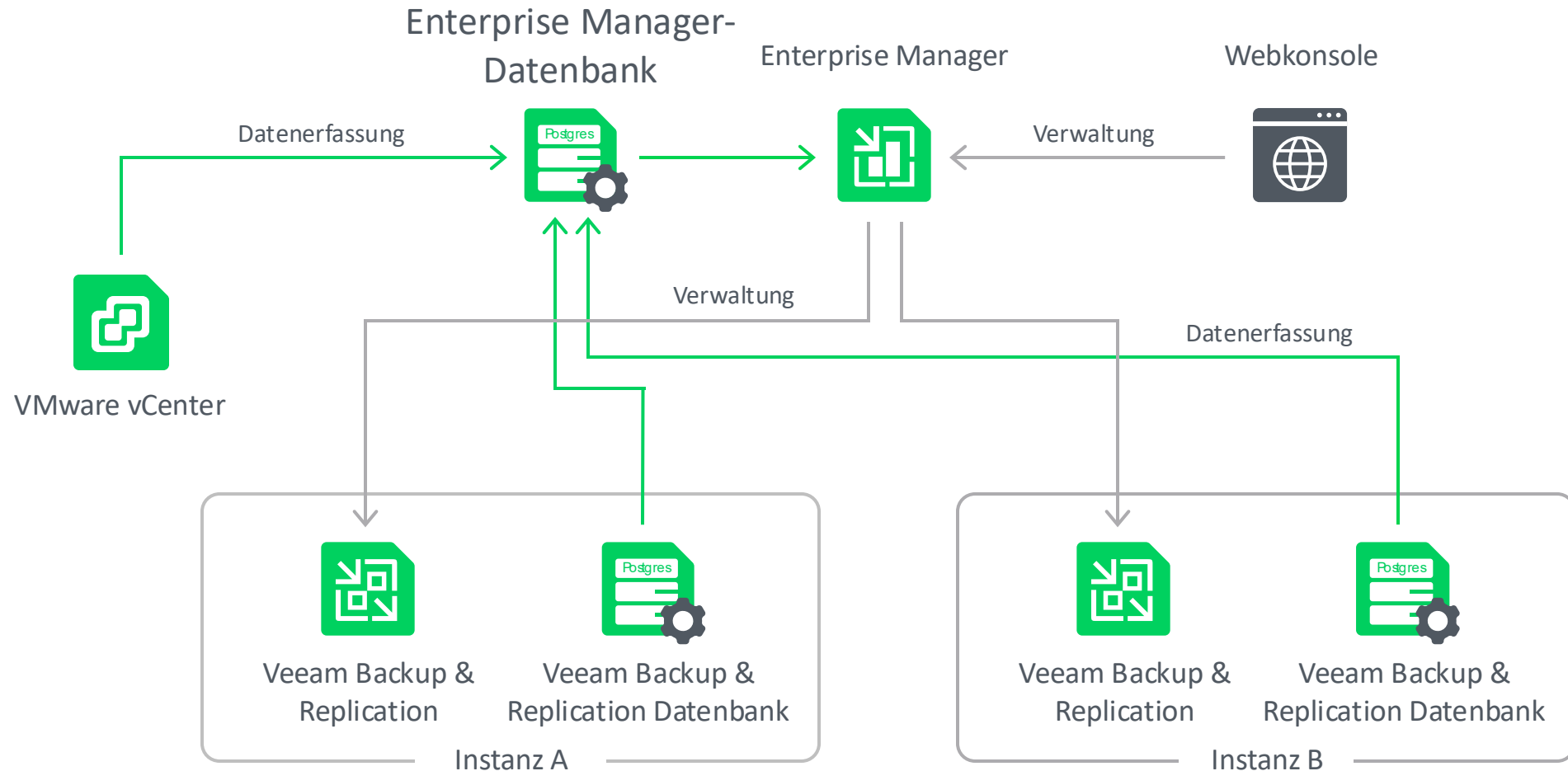
Username: postgres

Password:

BackNextCancel

Veeam Enterprise Manager

Bereitstellungsbeispiel (logische Beziehungen)



Veeam Enterprise Manager

Funktionen

Dashboard Reports Jobs Policies Unstructured Data Machines Files **Items** Requests

DEMOCENTER Configuration

Mailbox Items SQL Database Oracle Database PostgreSQL Instance

Username:
Enter username

Accounts:
Available accounts will be shown after specifying a username

History

Restore point:
No restore point selected

Items:
☐ Mail
☐ Calendar
☐ Contacts

☐ Only restore missing items created or received Yesterday

Restore

Veeam Enterprise Manager

Funktionen. Konfiguration.

Dashboard

Reports

Jobs

Policies

Unstructured Data

Machines

Files

Items

Requests

USDEMO\

Exit Configuration

Backup Servers

vCenter Servers

Self-Service

Sessions

Roles

Settings

Licensing

Notifications

Start Collecting

Add...

Edit...

Remove

Schedule...

Audit report...

Update certificate

Export

Refresh

Name	Login	Build	Server Description
	<certificate-based authenticatio...	12.3.0.310	
	<certificate-based authenticatio...	12.3.0.310	
	<certificate-based authenticatio...	12.3.0.310	
	<certificate-based authenticatio...	12.3.0.310	
	<certificate-based authenticatio...	12.3.0.310	
	<certificate-based authenticatio...	12.3.0.310	

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veeam

Veeam Enterprise Manager

Funktionen. Konfiguration.

Exit Configuration

Backup Servers

vCenter Servers

Self-Service

Sessions

Roles

Settings

Licensing

Notifications

⚙️ Check version ...

📄 Install

✖ Remove

Refresh

Server	Version	Status	Plug-in Status	Plug-in Version	Installed by
.veeam.local	6.7.0	✔ OK	Unknown		
.veeam.local	7.0.3	✔ OK	Installed	12.1.0.2131	

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veeam

Veeam Enterprise Manager

Funktionen. Konfiguration.

Dashboard

Reports

Jobs

Policies

Unstructured Data

Machines

Files

Items

Requests

USDEMO\

Exit Configuration

Backup Servers

vCenter Servers

Self-Service

Sessions

Roles

Settings

Licensing

Notifications

vSphere

Cloud Director

Search by account name

Account Types (All)

Add

Edit

Remove

Delegation Mode

Export

Refresh

Account		Repository	Priority	Quota	Per-user	Used
		Local Repository - REFS (...)	Normal	100 GB	No	0

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veeam

Veeam Enterprise Manager

Funktionen. Konfiguration.

The screenshot displays the Veeam Enterprise Manager web interface. The top navigation bar includes links to Dashboard, Reports, Jobs, Policies, Unstructured Data, Machines, Files, Items, and Requests. The user is logged in as USDEMO\, and the current view is the Roles configuration page. The left sidebar shows the navigation menu with 'Roles' selected. The main content area features a search bar, a filter for 'Account Types (All)', and action buttons: Add..., Edit..., Remove, Rebuild Roles, Export, and Refresh. A table lists existing roles, including ATLDEM-01\, BUILTIN\Adm, and several USDEMO\ entries. Two 'Add Role' dialog boxes are open. The first dialog shows 'Account type' set to 'User'. The second dialog shows 'Account type' set to 'Group', 'Account' field empty, and 'Role' set to 'Portal Administrator'.

Dashboard Reports Jobs Policies Unstructured Data Machines Files Items Requests

USDEMO\

Exit Configuration

Backup Servers

vCenter Servers

Self-Service

Sessions

Roles

Settings

Licensing

Notifications

Search by account name

Account Types (All)

Add... Edit... Remove Rebuild Roles

Export Refresh

Account

ATLBEM-01\

BUILTIN\Adm

USDEMO\

USDEMO\

USDEMO\

USDEMO\

Add Role

Account type: User

Account:

Role:

Add Role

Account type: Group

Account:

Role: Portal Administrator

Portal Administrator

Portal User

Restore Operator

Veeam Enterprise Manager

Funktionen. Konfiguration.

Dashboard Reports Jobs Policies Unstructured Data Machines Files Items Requests DEMOCENTER\

Exit Configuration

Backup Servers vCenter Servers Self-Service Sessions Roles Settings **Licensing** Notifications About

Summary Instances

Details Report Install license

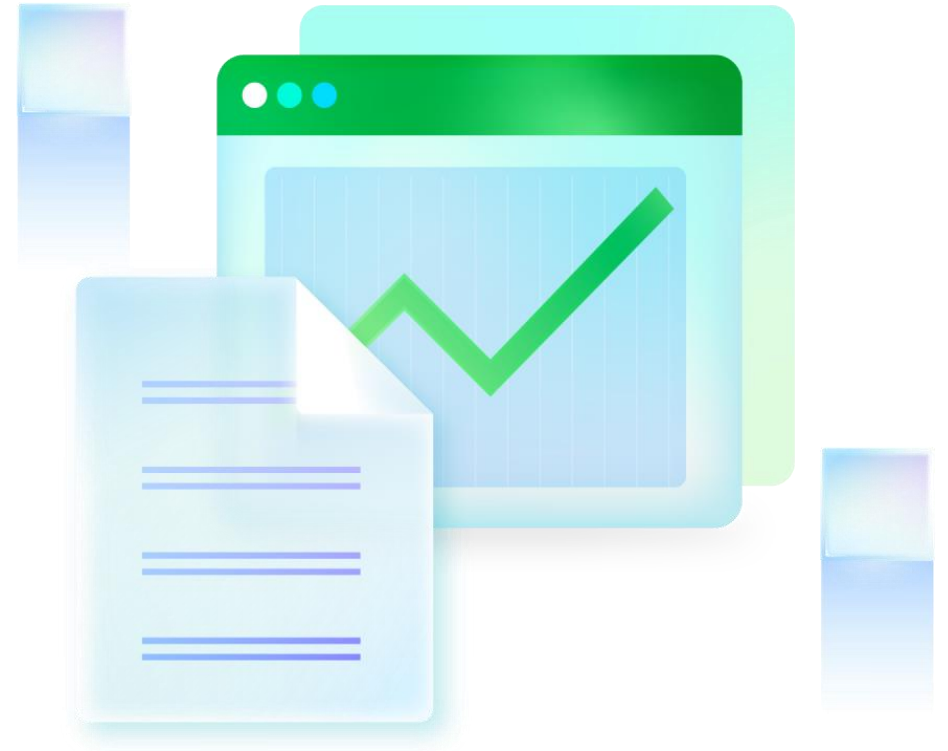
License edition: Enterprise Plus
License is valid, Period: 208 days

Instances

Virtual Machines (22 instances)

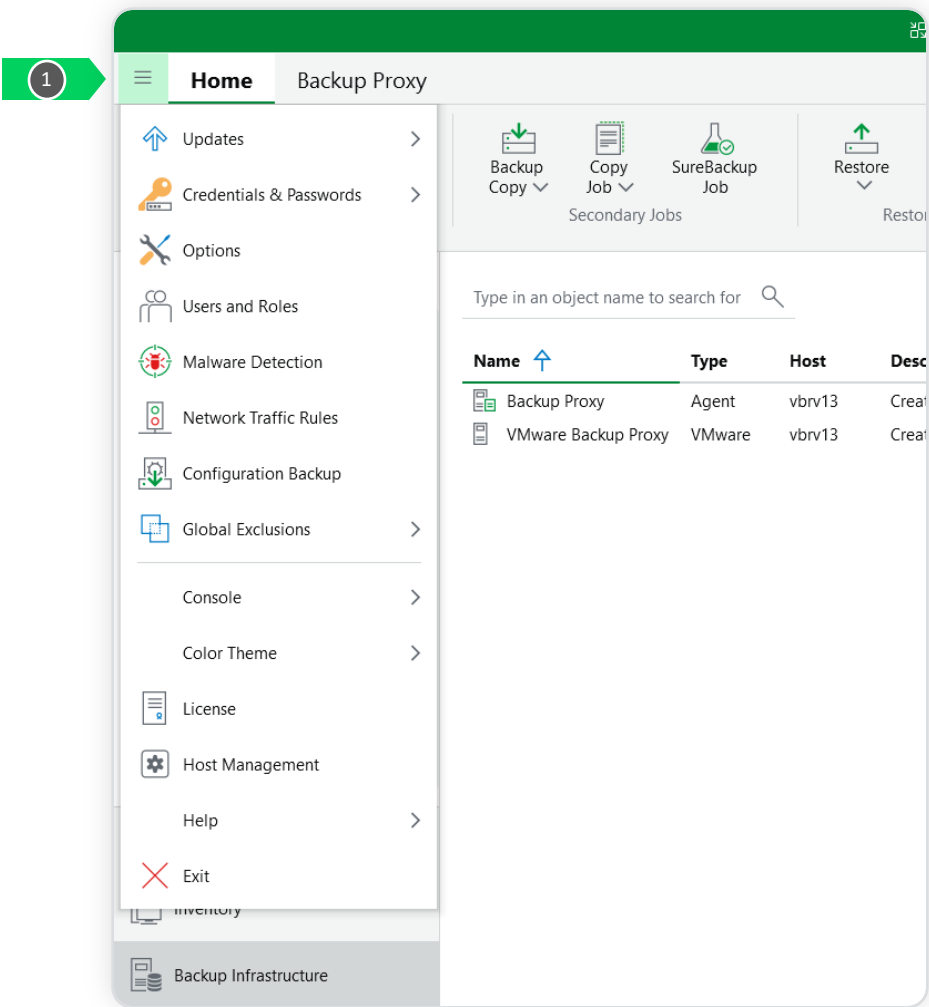
Name	Instances	Type	Job name	Last processed
demo-linuxvm101	1	vSphere	VMware - Backup from 3PAR Snapshot	01/08/2024
demo-linuxvm102	1	vSphere	VMware - Backup from IBM Snapshot	01/08/2024
demo-linuxvm103	1	vSphere	VMware - Backup from NetApp Snapshot	01/08/2024
demo-linuxvm107	1	vSphere	VMware - Backup from VNX Snapshot	01/08/2024
demo-linuxvm109	1	vSphere	VMware - Backup from ETERNUS Snapshot	01/08/2024
demo-sql106	1	vSphere	VMware - Backup from Pure Snapshot	01/08/2024
demo-winvm101	1	vSphere	VMware - Backup from 3PAR Snapshot	01/08/2024
demo-winvm102	1	vSphere	VMware - Backup from IBM Snapshot	01/08/2024
demo-winvm103	1	vSphere	VMware - Backup from NetApp Snapshot	01/08/2024
demo-winvm105	1	vSphere	VMware - Backup from Nimble Snapshot	01/08/2024
demo-winvm106	1	vSphere	VMware - Backup from Pure Snapshot	01/08/2024
demo-winvm107	1	vSphere	VMware - Backup from VNX Snapshot	01/08/2024
demo-winvm108	1	vSphere	VMware - Backup from VSAN	01/08/2024
demo-winvm109	1	vSphere	VMware - Backup from ETERNUS Snapshot	01/08/2024
exch1	1	vSphere	VMware - Backup to XFS Repository	01/08/2024
fc-1	1	vSphere	VMware - Backup to XFS Repository	01/08/2024

Hauptmenü



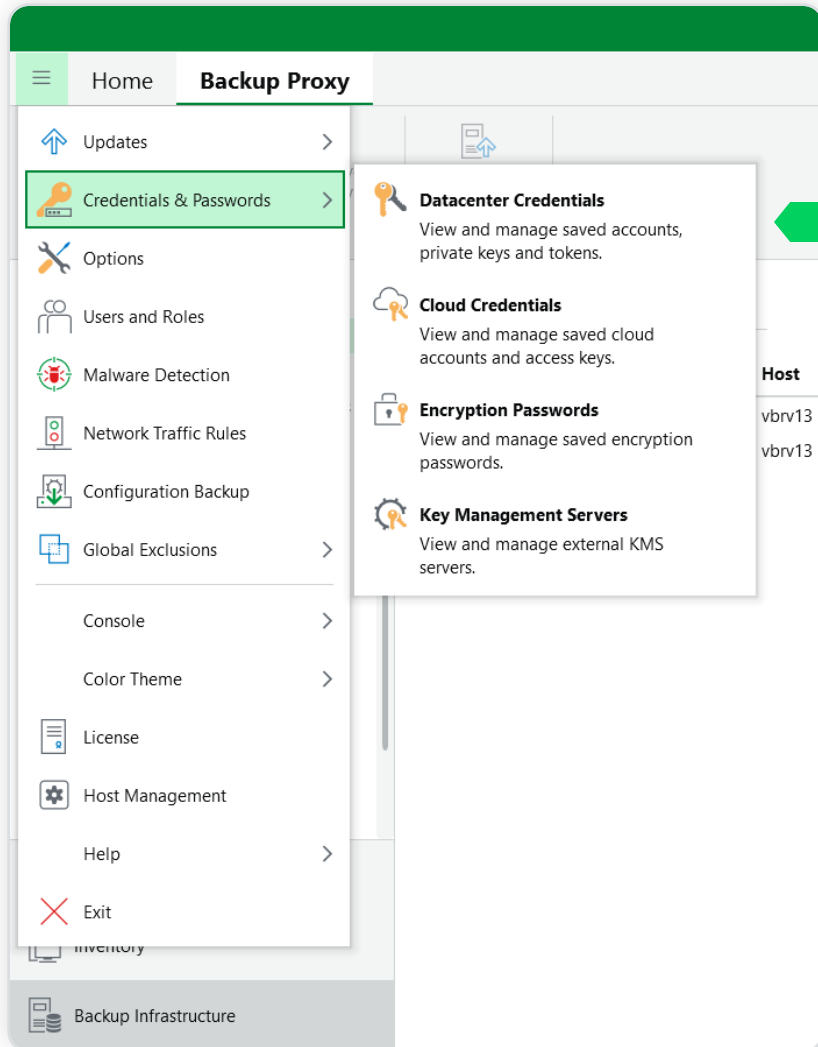
Hauptmenü

Anmeldeinformationen & Passwörter



Hauptmenü

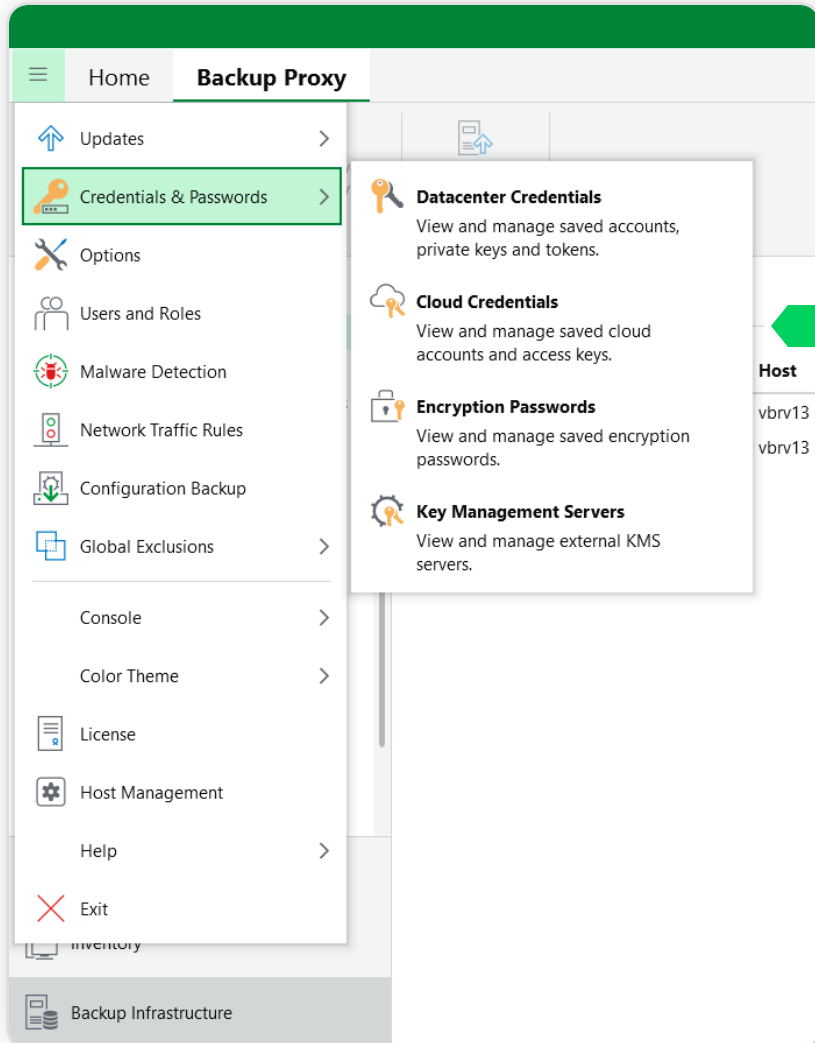
Anmeldeinformationen & Passwörter



Man kann diese Option verwenden, um eine Liste von Anmeldeinformationseinträgen zu erstellen und zu verwalten, die man für die Verbindung zu Komponenten in der Backup-Infrastruktur verwenden möchte.

Hauptmenü

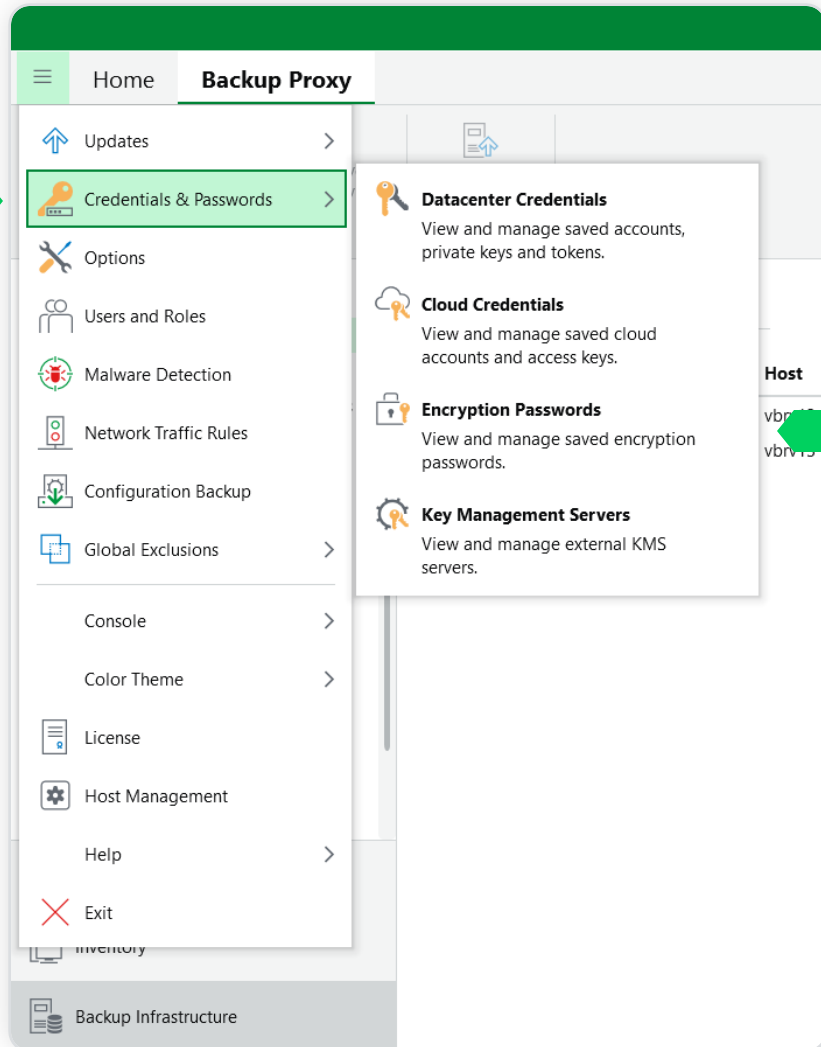
Anmeldeinformationen & Passwörter



Man kann diese Option verwenden, um eine Liste von Anmeldeinformationseinträgen zu erstellen und zu verwalten, die man für die Verbindung zu Cloud-Diensten verwenden möchte.

Hauptmenü

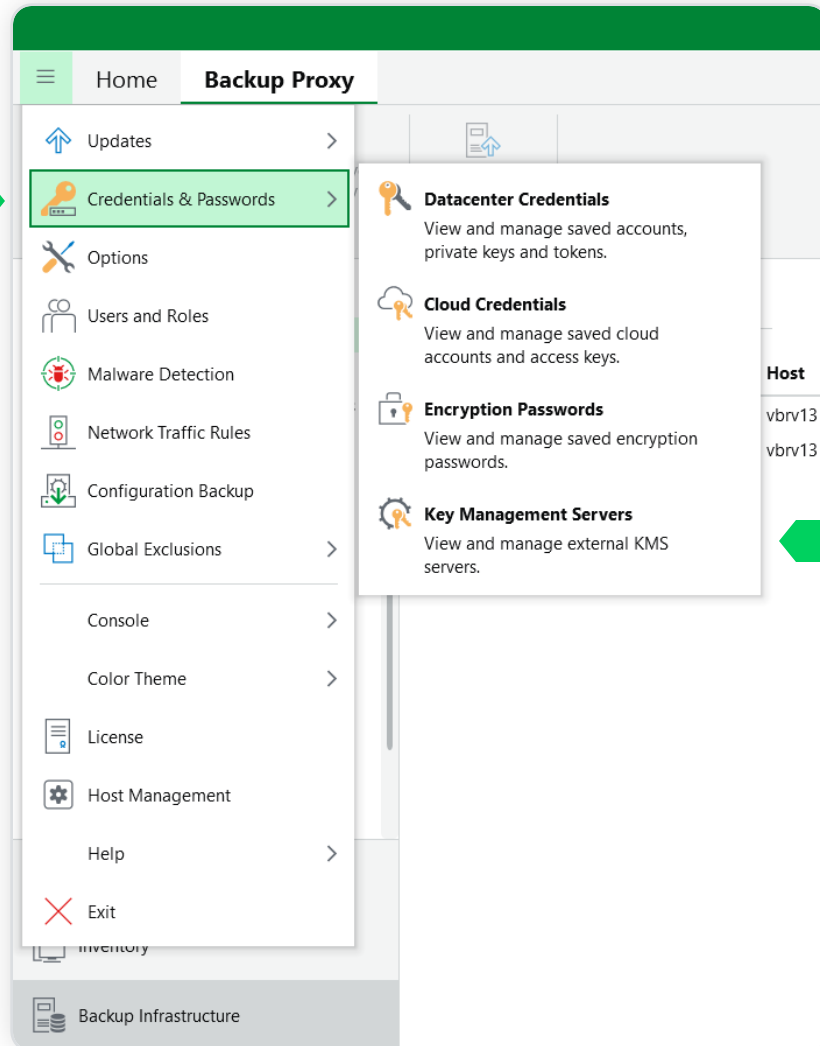
Anmeldeinformationen & Passwörter



Man kann diese Option verwenden, um eine Liste von Passwörtern zu erstellen und zu verwalten, die man für die Datenverschlüsselung verwenden möchte.

Hauptmenü

Anmeldeinformationen & Passwörter



Man kann diese Option verwenden, um KMS-Server hinzuzufügen und KMS-Schlüssel zu verwenden.

Hauptmenü

Benutzer & Rollen

2

Home

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Updates

Credentials & Passwords

Options

Users and Roles

Malware Detection

Network Traffic Rules

Configuration Backup

Global Exclusions

Console

Color Theme

License

Host Management

Help

Exit

Backup Copy

Copy Job

SureBackup Job

Restore

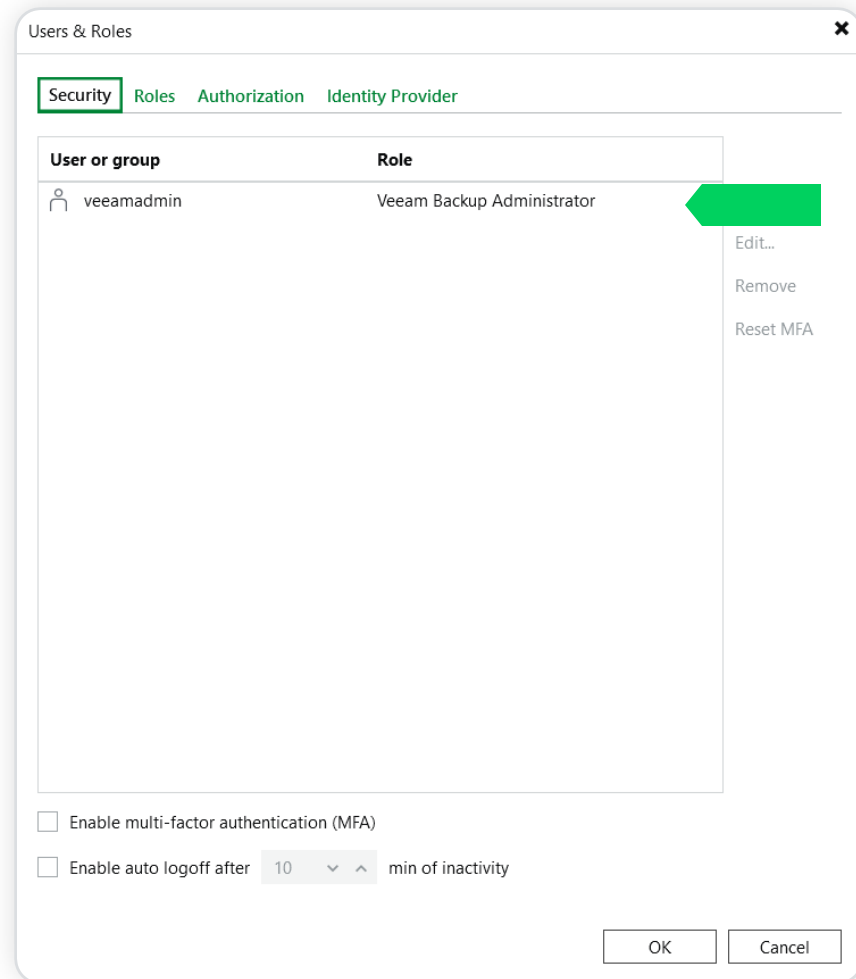
Type in an object name to search for

Name	Type	Host	Desc
Backup Proxy	Agent	vbrv13	Crea
VMware Backup Proxy	VMware	vbrv13	Crea

Backup Infrastructure

Hauptmenü

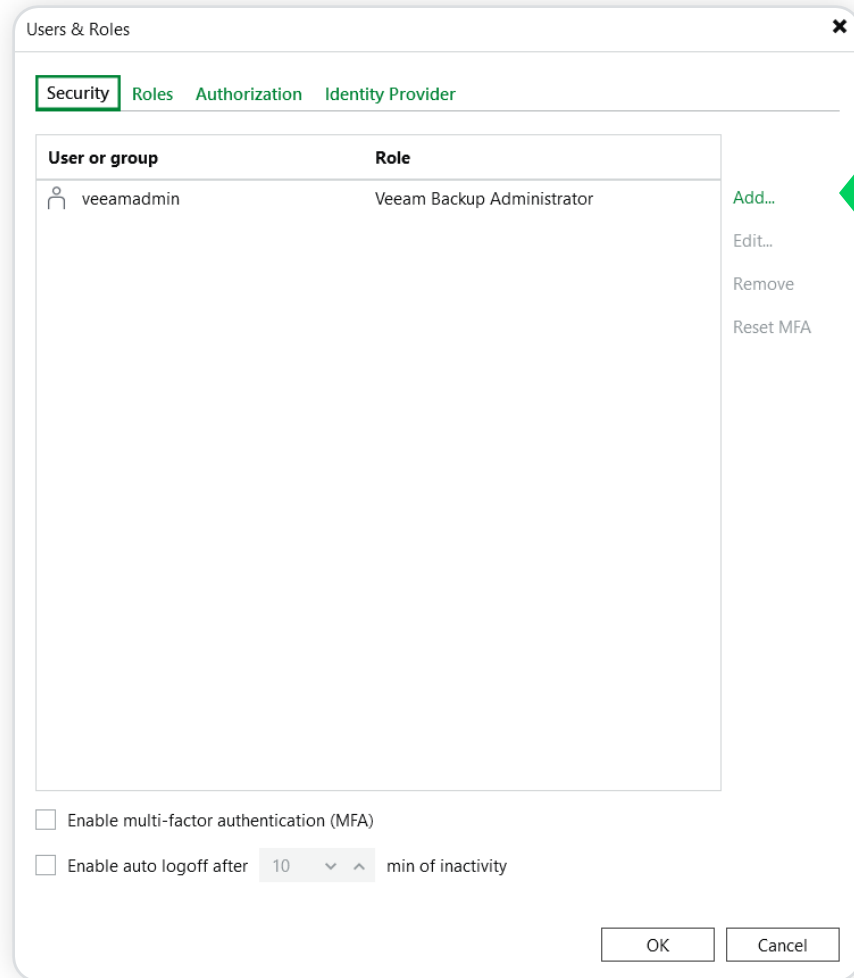
Benutzer & Rollen



Man kann eine Liste aller Benutzer und Benutzergruppen mit ihren jeweiligen Rollen anzeigen; die Rollen legen fest, welche Veeam Backup & Replication-Vorgänge sie ausführen dürfen.


Hauptmenü

Benutzer & Rollen



Users & Roles

Security Roles Authorization Identity Provider

User or group	Role
 veeamadmin	Veeam Backup Administrator

Add...
Edit...
Remove
Reset MFA

☐ Enable multi-factor authentication (MFA)

☐ Enable auto logoff after 10 min of inactivity

OK Cancel

Man kann neue Benutzer oder Benutzergruppen hinzufügen.

Hauptmenü

Benutzer & Rollen

Users & Roles

Security Roles Authorization Identity Provider

User or group	Role
veeamadmin	Veeam Backup Administrator

Add... Edit... Remove Reset MFA

Add user

Add a user or group to grant a role. Local users can be managed in the Users & Roles section of the Veeam Host Management console.

Type: User

Name: User

Role: Veeam Backup Administrator

☐ This is a service account (disables multi-factor authentication)

OK Cancel

☐ Enable multi-factor authentication (MFA)

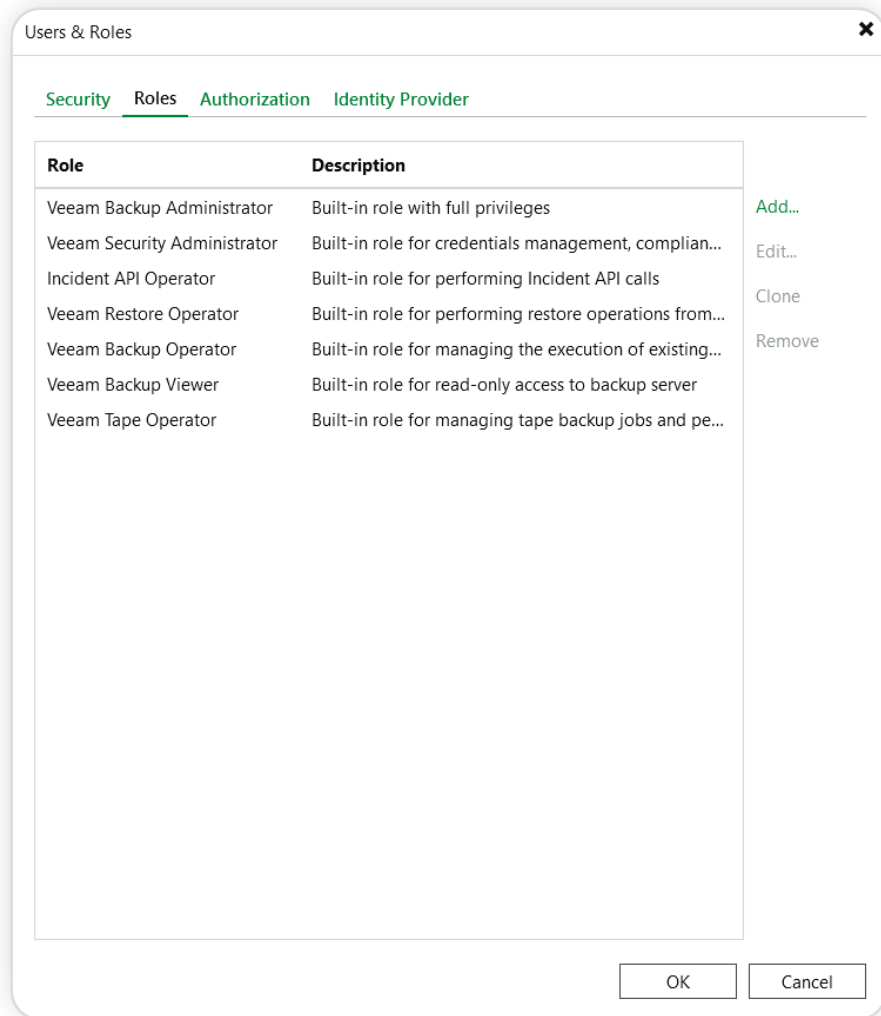
☐ Enable auto logoff after 10 min of inactivity

OK Cancel

Man kann den Benutzer oder die Benutzergruppe entweder hinzufügen, indem man sie im Format DOMAIN\BENUTZERNAME angibt, oder indem man sie durchsucht.

Hauptmenü

Benutzer & Rollen



Das Bearbeiten eines vorhandenen Benutzers oder einer vorhandenen Benutzergruppe ermöglicht das Ändern des DOMAIN/BENUTZERNAME-Formats und der Rolle.

Wenn es um Rollen geht, stehen fünf Optionen zur Verfügung:

- **Restore Operator** – ermöglicht es, Wiederherstellungsprozesse durch den jeweiligen Benutzer bzw. die Benutzergruppe ausführen zu lassen.
- **Backup Operator** – verantwortlich für das Starten und Stoppen von Sicherungsjobs sowie für das Exportieren und Kopieren von Backups und das Erstellen von VeeamZIP-Backups.
- **Backup Administrator** – kann alle administrativen Tätigkeiten ausführen und hat vollen Zugriff auf sämtliche zur Backup-Infrastruktur hinzugefügten Objekte.
- **Tape Operator** – verantwortlich für alle Bandvorgänge sowie für das Starten und Stoppen von Bandjobs.
- **Backup Viewer** – verfügt über schreibgeschützten Zugriff auf die Konsole.

Hauptmenü

Benutzerdefinierte Rollen

The screenshot shows the 'Add New Role' wizard in Veeam Backup & Replication. The 'Restore Permissions' step is active, with a sidebar on the left listing steps: Name, Inventory Scope, Repository Scope, **Restore Permissions**, Restore Target Scope, and Summary. The main area shows 'Define the restore permissions for this role' with two options: 'Own backups and additional backups' and 'Limited restore options' (selected). A 'Restore Options' dialog box is open, titled 'Choose restore options available to this role:'. It has two radio buttons: 'All available restore options' and 'Only the following restore options:' (selected). Below the second radio button is a list of restore options with checkboxes:

Name	Selected
Instant Recovery to VMware vSphere	<input checked="" type="checkbox"/>
Instant Recovery to Microsoft Hyper-V	<input type="checkbox"/>
Instant Disk Recovery	<input checked="" type="checkbox"/>
Instant file share recovery	<input type="checkbox"/>
Restore entire VM to VMware vSphere	<input checked="" type="checkbox"/>
Restore entire VM to Microsoft Hyper-V	<input type="checkbox"/>
Restore entire file share	<input type="checkbox"/>
Restore entire bucket	<input type="checkbox"/>
Restore virtual disks to VMware vSphere	<input type="checkbox"/>
Publish disks	<input checked="" type="checkbox"/>
Restore VM files	<input type="checkbox"/>

At the bottom of the dialog are 'OK' and 'Cancel' buttons. At the bottom of the main wizard window are '< Previous', 'Next >', 'Finish', and 'Cancel' buttons.

Zugriff steuern auf:

- Backup und/oder Wiederherstellung
- Repository
- Wiederherstellungsvorgänge
- Infrastruktur-Elemente
- Optionen der Remote-Konsolenoberfläche

Unterstützte Workloads:

- VMware
- Hyper-V
- Veeam Agenten (VAW, VAL)
- Unstrukturierte Daten
- Datenbank-Plug-ins

Hauptmenü

Globale Netzwerkregeln

1

2

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Upgrade Proxy Upgrade

Type in an object name to search for

Name	Type	Host
Backup Proxy	Agent	vbrv13
VMware Backup Proxy	VMware	vbrv13

Inventory

Backup Infrastructure

Hauptmenü

Globale Netzwerkregeln

Global Network Traffic Rules

Network traffic rules:

Name	Encryption	Throttling	Time period
Internet	Enabled	Disabled	

Add...

Edit...

Remove

Networks...

☒ Use multiple upload streams per job:

5

▼ ▲

Improves job performance through better utilization of high-latency links. Disable this option if you are running a large amount of concurrent jobs, or for networking equipment compatibility purposes.

OK

Cancel

Standardmäßig verwendet Veeam Backup & Replication für jede Auftragssitzung einen multithreaded Datenverkehr vom Quell- zum Zielsystem über mehrere TCP/IP-Verbindungen.

Wenn Sie jedoch mehrere Jobs so planen, dass sie gleichzeitig ausgeführt werden, kann die Netzwerklast hoch sein. Wenn die Netzwerkkapazität nicht ausreicht, um mehrere Datenübertragungsverbindungen zu unterstützen, können Sie die multithreaded Datenübertragung deaktivieren oder die Anzahl der TCP/IP-Verbindungen ändern.

Hauptmenü

Globale Netzwerkregeln

Add New IPv4 Network Traffic Rule

Name: Throttle default

Source IP address range: 192 . 168 . 0 . 1 to 192 . 168 . 0 . 255

Target IP address range: 192 . 168 . 0 . 1 to 192 . 168 . 0 . 255

☐ All public IP addresses

Action:

☐ Encrypt network traffic

☒ Throttle network traffic

100 MB/s ☒ Never throttle any restore activity

☐ All the time

☒ During the specified time periods only

AM PM

All None

Sunday

Monday

Tuesday

Wednesday

Thursday

Friday

Saturday

Mark as: ☒ Enabled ☐ Disabled ☒ Unthrottle to: 1 Mbps

OK Cancel

Man kann verschiedene IPv4/6-Regeln hinzufügen, indem man den Bereich für Quelle und Ziel angibt und entweder eine Verschlüsselung des Netzwerkverkehrs erzwingt oder ihn während bestimmter Zeiträume drosselt.

Hauptmenü

Globale Netzwerkregeln

Preferred Networks

☒ Prefer the following networks for backup and replication traffic:

Network

Add... Remove

Add Network

Network address: | . . . / 0

Subnet mask: . . .

OK Cancel

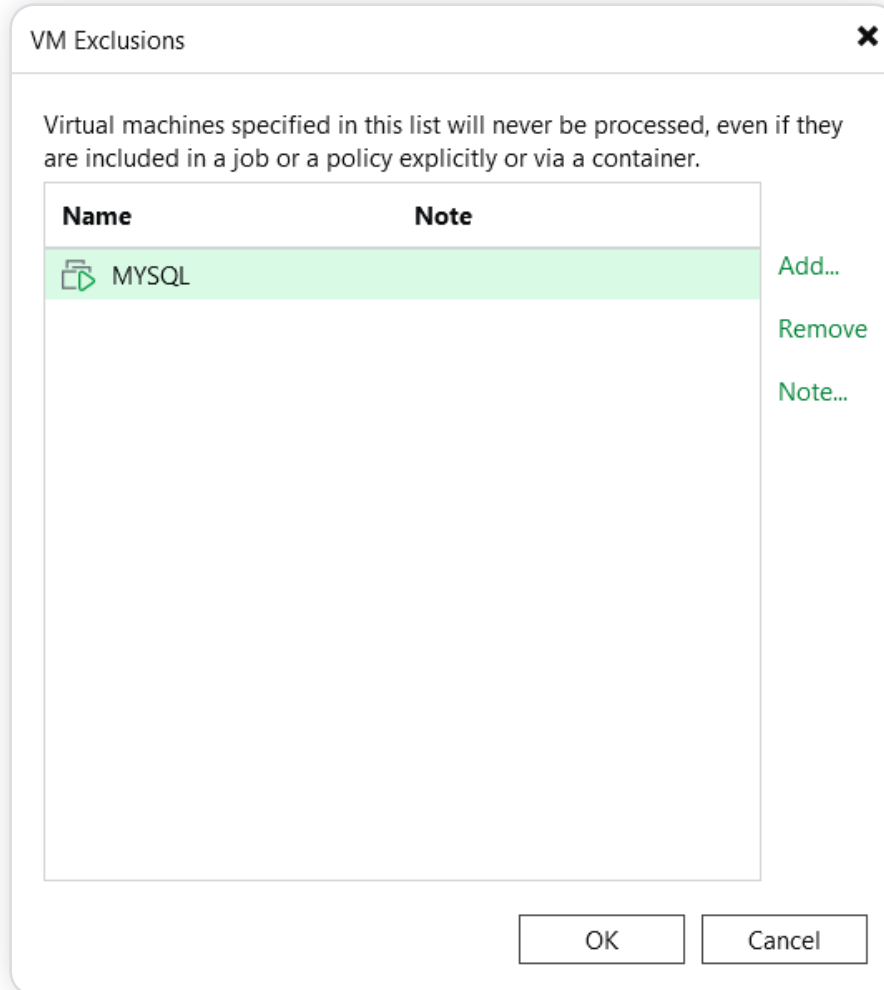
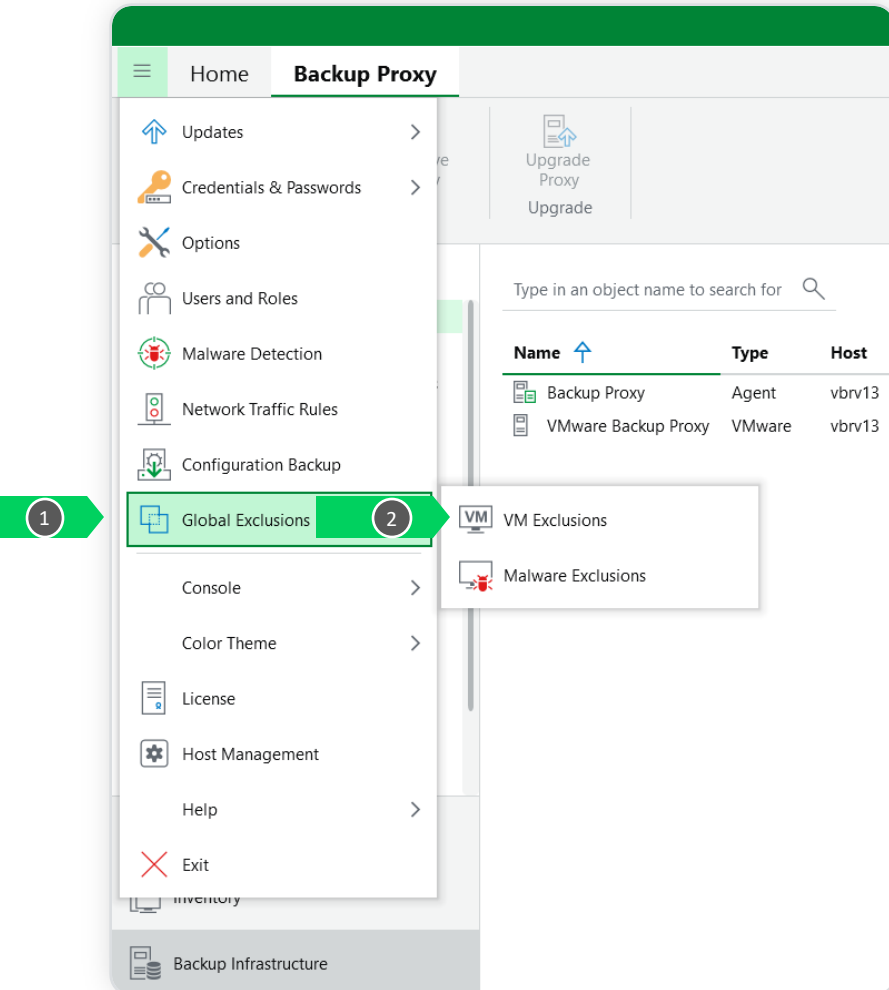
☐ Enable IPv6 communication

OK Cancel

Es besteht außerdem die Möglichkeit, ein bevorzugtes Netzwerk für den Backup- und Replikationsverkehr anzugeben.

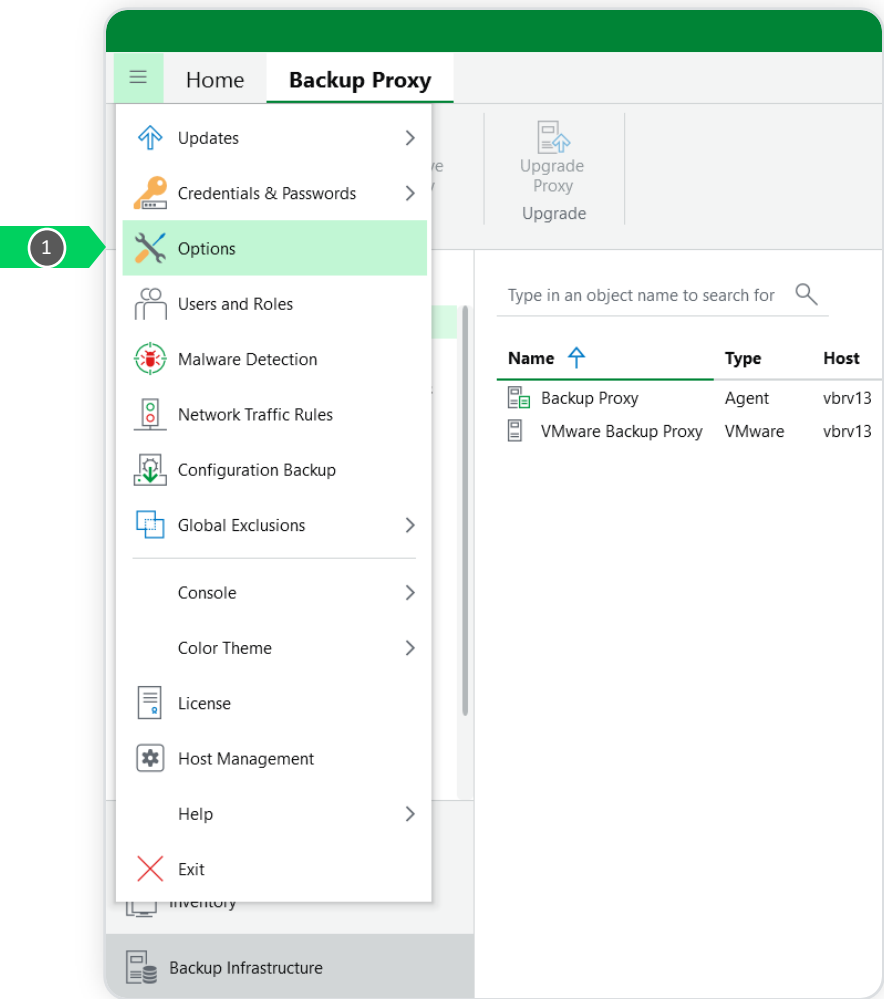
Hauptmenü

VM-Ausschlüsse



Hauptmenü

Optionen



Hauptmenü

Optionen. I/O-Steuerung.

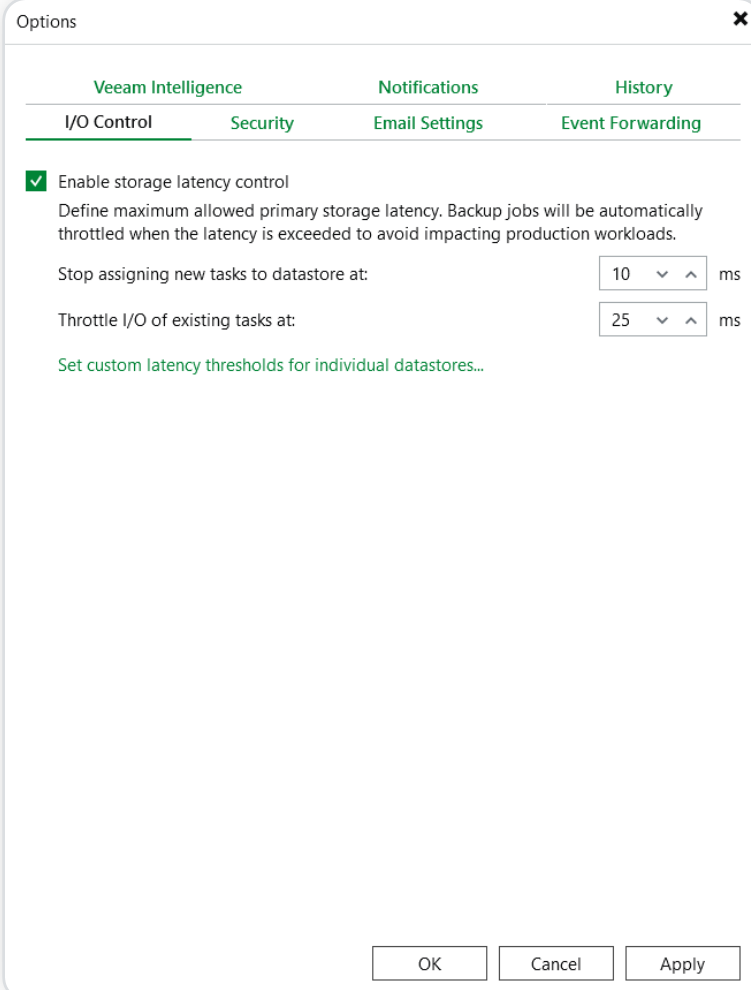
Wenn die Steuerung der Speicherlatenz aktiviert ist, überwacht Veeam Backup & Replication die Lese-Latenz des Speichers auf Produktions-Datenspeichern während Datensicherungs- und Disaster-Recovery-Aktivitäten.

Um die Speicherlatenz zu überwachen, verwendet Veeam Backup & Replication Echtzeitmetriken vom Hypervisor, auf dem die VMs ausgeführt werden.

Stop assigning new tasks to datastore at – die I/O-Latenzgrenze, ab der Veeam Backup & Replication dem Datenspeicher keine neuen Aufgaben mehr zuweisen darf.

Throttle I/O of existing tasks at – die I/O-Latenzgrenze, ab der Veeam Backup & Replication die Geschwindigkeit des Lesens oder Schreibens von Daten zum/vom Datenspeicher verringern muss.

Dieselben Optionen können für einzelne Datenspeicher konfiguriert werden.



The screenshot shows the 'Options' dialog box with the 'I/O Control' tab selected. The 'Veeam Intelligence' section is active, showing a checked checkbox for 'Enable storage latency control'. Below this, a description states: 'Define maximum allowed primary storage latency. Backup jobs will be automatically throttled when the latency is exceeded to avoid impacting production workloads.' Two settings are visible: 'Stop assigning new tasks to datastore at' set to 10 ms and 'Throttle I/O of existing tasks at' set to 25 ms. A link 'Set custom latency thresholds for individual datastores...' is present. At the bottom are 'OK', 'Cancel', and 'Apply' buttons.

Veeam Intelligence		Notifications	History
I/O Control	Security	Email Settings	Event Forwarding
<input checked="" type="checkbox"/> Enable storage latency control Define maximum allowed primary storage latency. Backup jobs will be automatically throttled when the latency is exceeded to avoid impacting production workloads.			
Stop assigning new tasks to datastore at:		10	ms
Throttle I/O of existing tasks at:		25	ms
Set custom latency thresholds for individual datastores...			

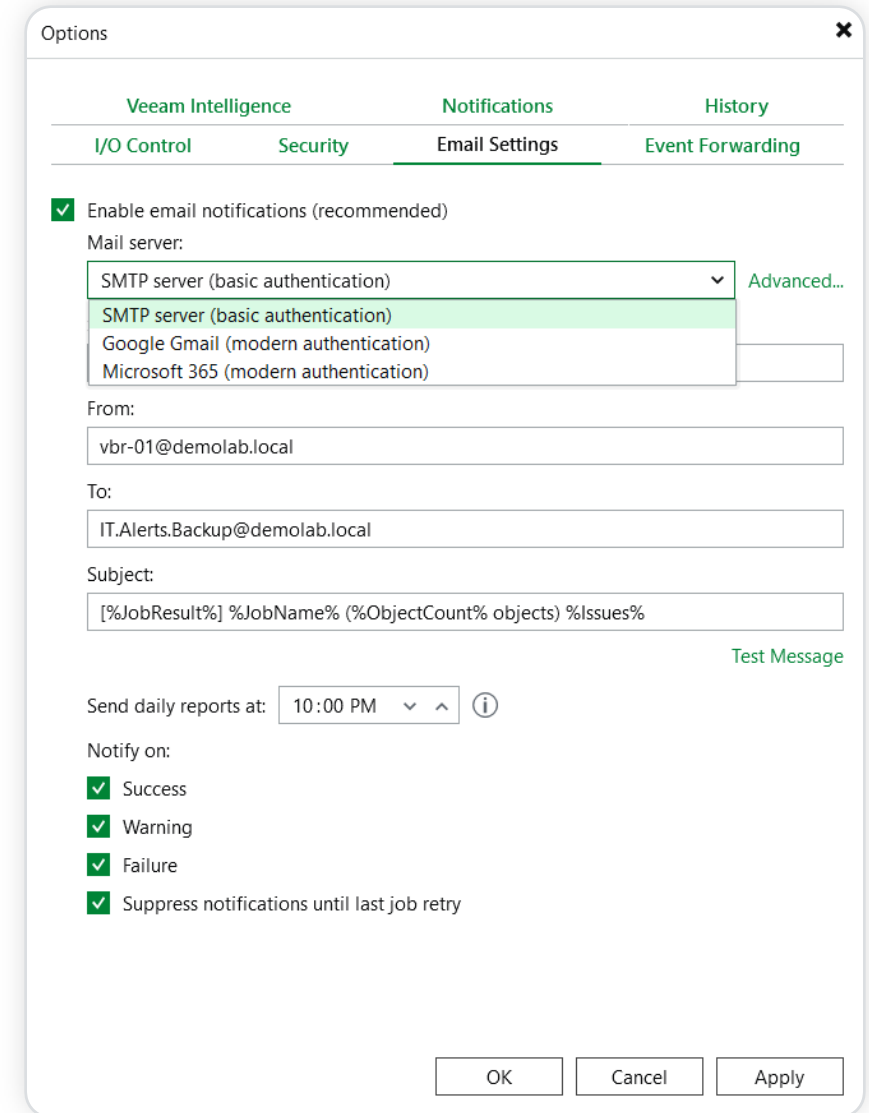
Hauptmenü

Optionen. E-Mail-Einstellungen.

Veeam Backup & Replication bietet außerdem die Möglichkeit, E-Mails zu versenden, die tägliche Berichte über den letzten Status der Backup-Jobs enthalten.

Derzeit unterstützen wir SMTP, Google Gmail und Microsoft 365 als Mailserver, die für diesen Zweck verwendet werden können.

Der Betreff der E-Mail, die Empfänger, die E-Mail-Adresse des Absenders und der Inhalt des Berichts in Bezug auf den letzten Status, der aufgenommen werden soll, können alle in diesem Tab konfiguriert werden.



The screenshot shows the 'Options' dialog box with the 'Email Settings' tab selected. The 'Enable email notifications' checkbox is checked. The 'Mail server' dropdown menu is open, showing options: 'SMTP server (basic authentication)' (selected), 'Google Gmail (modern authentication)', and 'Microsoft 365 (modern authentication)'. The 'From' field is 'vbr-01@demolab.local', the 'To' field is 'IT.Alerts.Backup@demolab.local', and the 'Subject' field is '[%JobResult%] %JobName% (%ObjectCount% objects) %Issues%'. The 'Send daily reports at' is set to '10:00 PM'. The 'Notify on' section has checkboxes for 'Success', 'Warning', 'Failure', and 'Suppress notifications until last job retry', all of which are checked. There are 'OK', 'Cancel', and 'Apply' buttons at the bottom right.

Veeam Intelligence	Notifications	History
I/O Control	Security	Event Forwarding

☒ Enable email notifications (recommended)

Mail server:

SMTP server (basic authentication) Advanced...

SMTP server (basic authentication)

Google Gmail (modern authentication)

Microsoft 365 (modern authentication)

From:

vbr-01@demolab.local

To:

IT.Alerts.Backup@demolab.local

Subject:

[%JobResult%] %JobName% (%ObjectCount% objects) %Issues%

[Test Message](#)

Send daily reports at: 10:00 PM ⌵ ⌶ ⓘ

Notify on:

☒ Success

☒ Warning

☒ Failure

☒ Suppress notifications until last job retry

OK Cancel Apply

Hauptmenü

Optionen. Benachrichtigungen.

Veeam Backup & Replication kann außerdem Benachrichtigungen direkt in der Konsole anzeigen, wenn Schwellenwerte auf dem Backup-Speicher der Repositories oder Produktions-Datenspeicher erreicht werden, wenn noch 14 Tage bis zum Ende des Supports für die installierte Lizenz verbleiben oder wenn Updates für die Hypervisoren verfügbar sind.

Options

I/O Control

Security

Email Settings

Event Forwarding

Veeam Intelligence

Notifications

History

Backup storage

☒

 Warn me when free disk space is below:

10

▼

▲

 %

Production datastores

☒

 Warn me when free disk space is below:

10

▼

▲

 %

☒

 Skip VM processing when free disk space is below:

5

▼

▲

 %

Support expiration

☒

 Enable notifications about support contract expiration

OK

Cancel

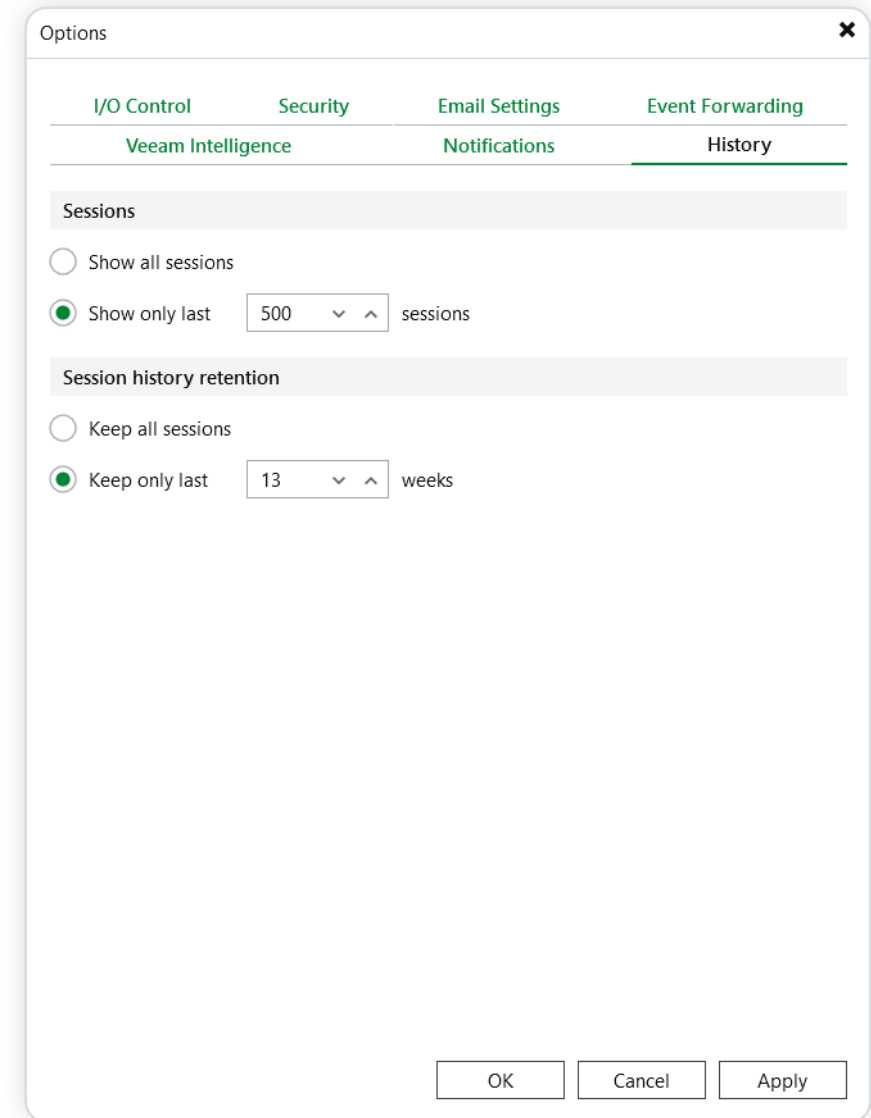
Apply

Hauptmenü

Optionen. Verlauf.

Der Bereich „**Sessions**“ steuert, wie viele Einträge im Verlauf-Tab der Veeam-Backup-&-Replication-Konsole sichtbar sein sollen.

Der Bereich „**Session History Retention**“ legt fest, wie lange Sitzungsinformationen in der Datenbank aufbewahrt werden sollen.



The screenshot shows the 'Options' dialog box with the 'History' tab selected. The dialog has a title bar with a close button (X). The tabs are: I/O Control, Security, Email Settings, Event Forwarding, Veeam Intelligence, Notifications, and History. The 'Sessions' section has two radio buttons: 'Show all sessions' (unselected) and 'Show only last' (selected). Next to 'Show only last' is a spinner box set to '500' and the text 'sessions'. The 'Session history retention' section has two radio buttons: 'Keep all sessions' (unselected) and 'Keep only last' (selected). Next to 'Keep only last' is a spinner box set to '13' and the text 'weeks'. At the bottom are three buttons: 'OK', 'Cancel', and 'Apply'.

I/O Control	Security	Email Settings	Event Forwarding
Veeam Intelligence	Notifications	History	

Sessions

☐ Show all sessions

☒ Show only last sessions

Session history retention

☐ Keep all sessions

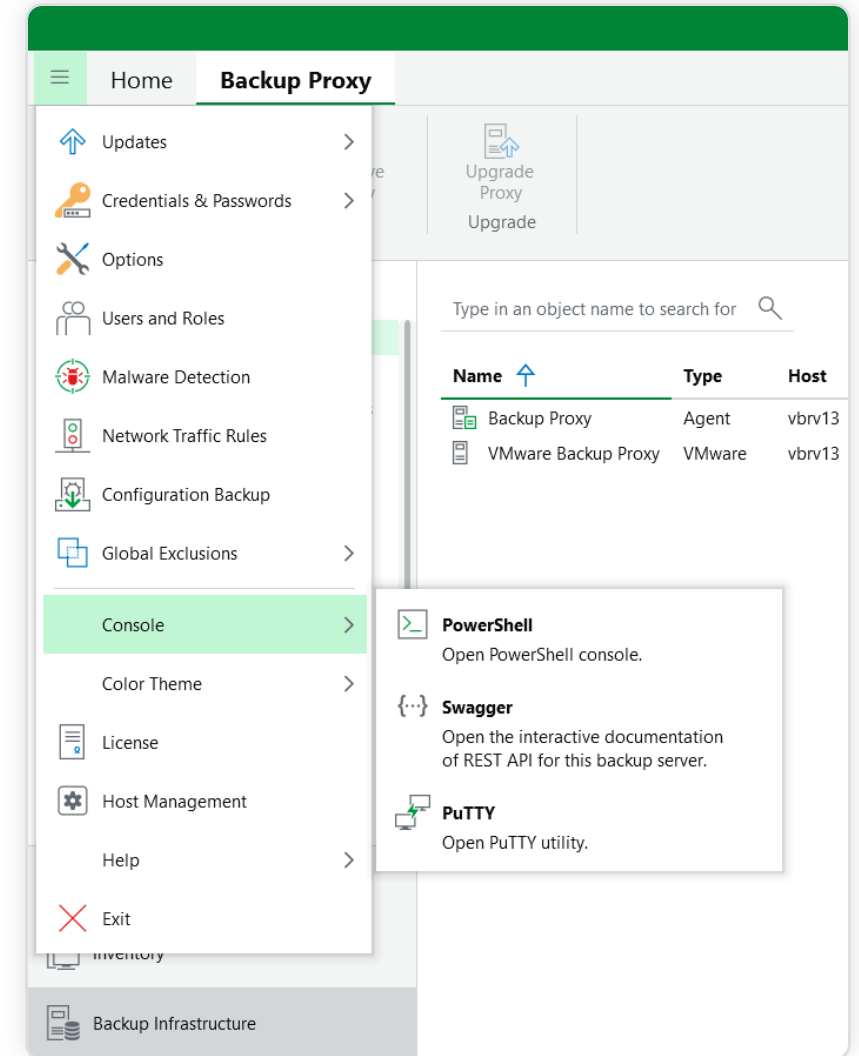
☒ Keep only last weeks

OK Cancel Apply

Hauptmenü

Konsole

Veeam Backup & Replication bietet die Möglichkeit, die PowerShell-Konsole zu öffnen, das PuTTY-Dienstprogramm auszuführen und die interaktive Dokumentation oder die REST-APIs für den Backup-Server direkt aus der Konsole zu öffnen.



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1

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Malware Detection

Network Traffic Rules

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Host Management

Help

Exit

Upgrade Proxy Upgrade

Type in an object name to search for

Name	Type	Host
Backup Proxy	Agent	vbrv13
VMware Backup Proxy	VMware	vbrv13

Hauptmenü

Konfigurations-Backup

Configuration Backup Settings

Backup

☒ Enable configuration backup to the following repository:

Windows Repo (Created by .\veeamadmin at 10/23/2025 10:51 PM.)

271 GB free of 399 GB

Restore points to keep: 10

Perform backup on: Daily at 10:00 AM

Last successful backup: 11/14/2025 10:46 AM

☒ Enable configuration backup file encryption

Password: Created by .\veeamadmin at 11/12/2025 7:10 AM. (Last edited:...

⚠ Loss protection disabled

Manage passwords

OK

Cancel

Apply

Notifications...

Schedule...

Backup now

Add...

Veeam Backup & Replication speichert alle Änderungen, die in einer Konsole auf einem bestimmten Server vorgenommen wurden, als Konfigurations-Backup.

Wenn der Hauptserver von Veeam Backup & Replication aus irgendeinem Grund ausfällt, kann das Konfigurations-Backup verwendet werden, um die Konfiguration schnell auf einen neuen Server wiederherzustellen.

Diese Methode ist ebenfalls empfehlenswert, falls der Veeam-Backup-&-Replication-Server in Zukunft ersetzt oder geändert werden soll.

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veeam

Hauptmenü

Konfigurations-Backup

Configuration Backup Settings

Backup

☒ Enable configuration backup to the following repository:

Windows Repo (Created by .\veeamadmin at 10/23/2025 10:51 PM.)

271 GB free of 399 GB

Restore points to keep: 10

Perform backup on: Daily at 10:00 AM

Last successful backup: 11/14/2025 10:46 AM

☒ Enable configuration backup file encryption

Password: Created by .\veeamadmin at 11/12/2025 7:10 AM. (Last edited:...

Loss protection disabled

OK Cancel Apply

Um das Konfigurations-Backup zu speichern, muss ein Repository ausgewählt werden.

Hauptmenü

Konfigurations-Backup

Configuration Backup Settings

Backup

☒ Enable configuration backup to the following repository:

Windows Repo (Created by .\veeamadmin at 10/23/2025 10:51 PM.)

271 GB free of 399 GB

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☒ Enable configuration backup file encryption

Password: Created by .\veeamadmin at 11/12/2025 7:10 AM. (Last edited:...

Loss protection disabled

Manage passwords

Notifications...

Schedule...

Backup now

Add...

OK

Cancel

Apply

SNMP- und E-Mail-Benachrichtigungen für das Konfigurations-Backup können automatisch versendet werden.

Es ist außerdem gute Praxis, das Backup zur automatischen Ausführung zu planen, anstatt sich auf manuelle Backups zu verlassen.

Hauptmenü

Konfigurations-Backup

Configuration Backup Settings

Backup

☒ Enable configuration backup to the following repository:

Windows Repo (Created by .\veeamadmin at 10/23/2025 10:51 PM.)

271 GB free of 399 GB

Restore points to keep: 10

Notifications...

Perform backup on: Daily at 10:00 AM

Schedule...

Last successful backup: 11/14/2025 10:46 AM

Backup now

☒ Enable configuration backup file encryption

Password:

Created by .\veeamadmin at 11/12/2025 7:10 AM. (Last edited:...

Add...

⚠ Loss protection disabled

Manage passwords

OK

Cancel

Apply

Eine weitere gute Praxis besteht darin, das Konfigurations-Backup per Verschlüsselung zu schützen.

Wenn das Verschlüsselungskennwort verloren geht, kann nur der Veeam Backup Enterprise Manager bei der Wiederherstellung helfen.

Jobs

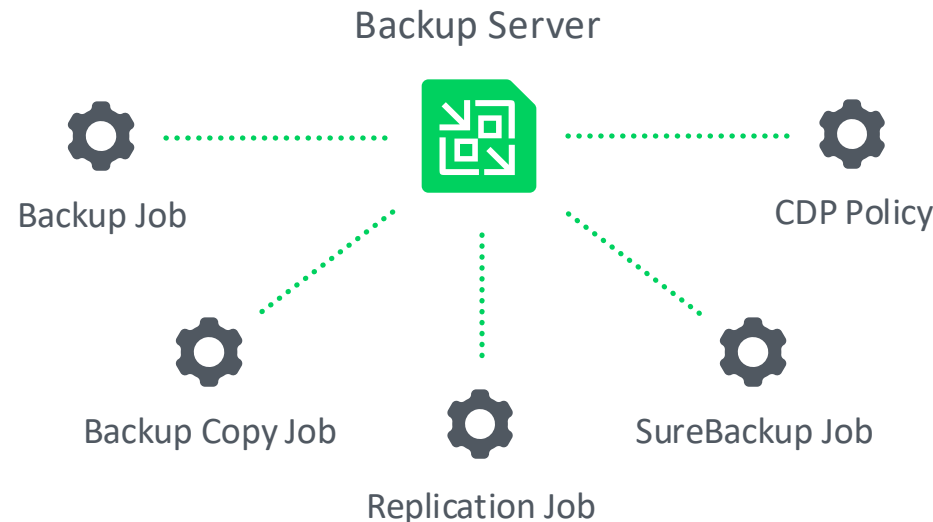


Das Konzept der Jobs

In Veeam Backup & Replication umfassen Jobs eine Reihe von Datenverwaltungsaufgaben, darunter **Backup**-, **Replikations**- und **Wiederherstellungsvorgänge**.

Sobald sie konfiguriert sind, automatisieren Jobs diesen Prozess und stellen sicher, dass geschäftskritische Daten regelmäßig und zuverlässig vor Verlust oder Beschädigung geschützt werden.

Wenn es um die Zuweisung von Ressourcen in der Backup-Infrastruktur geht, ermittelt der **Resource Scheduler Service** in Veeam Backup & Replication die Priorität der auf freie Ressourcen wartenden Jobs anhand ihres Typs, ihrer Priorität und der geplanten Startzeit.



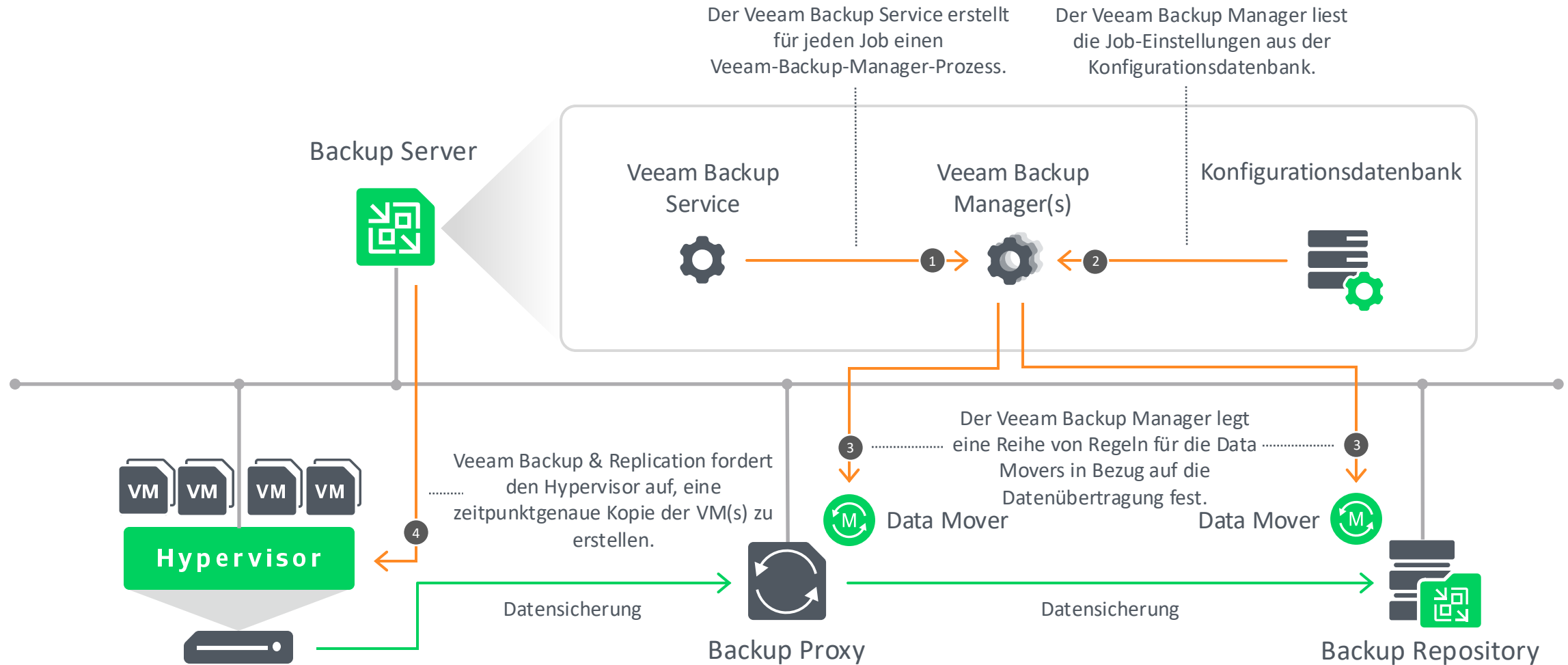
Priorisierung von Jobs

Hier ist eine **vereinfachte Liste** in der Reihenfolge von hoher zu niedriger Priorität :

1. **Data Restore jobs** — diese Jobs haben die höchste Priorität und erhalten als erste freie Systemressourcen.
2. **Continuous Data Protection policies**
3. **Background system jobs** (SnapshotDeleter zum Beispiel).
4. **Quick Backup jobs** — diese Jobs haben die zweithöchste Priorität.
5. **High Priority jobs** — Jobs mit aktivierter Option „Hohe Priorität“ haben die dritthöchste Priorität. Es ist möglich, die Option „Hohe Priorität“ für folgende Jobs zu aktivieren: Backup-Jobs, Replikations-Jobs, Agent-Jobs, die vom Backup-Server verwaltet werden, sowie Dateisicherungs-Jobs.
6. Regelmäßige **Backup-Jobs** und **Replikations-Jobs**
7. **Backup Copy jobs**, und **Archive jobs** — Diese Jobs haben die niedrigste Priorität und erhalten als letzte freie Systemressourcen.

Jobs

Beispiel eines Backup-Prozesses



Jobs

Beispiel eines Backup-Job-Erstellungsprozesses

New Backup Job

Name

Virtual Machines

Storage

Guest Processing

Schedule

Summary

Name

Type in a name and description for this backup job.

Name:

Backup Job Example

Description:

☐ High priority

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.

< Previous

Next >

Finish

Cancel

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veeam

Jobs

Beispiel eines Backup-Job-Erstellungsprozesses

New Backup Job

Name

Virtual Machines

Storage

Guest Processing

Schedule

Summary

Virtual Machines

Select virtual machines to process via container, or granularly. Container provides dynamic selection that automatically changes as you add new VMs into the container.

Name	Type	Size
------	------	------

Add...

Remove

Exclusions...

Up

Down

Recalculate

Total size:
0 B

< Previous

Next >

Finish

Cancel

Add Objects

Select objects:

Hosts and Clusters

10.0.0.240

MYSQL

POSTGRESQL

WINREPO

Type in an object name to search for

Add

Cancel

Jobs

Beispiel eines Backup-Job-Erstellungsprozesses

New Backup Job

Name

Virtual Machines

Storage

Guest Processing

Schedule

Summary

Virtual Machines

Select virtual machines to process via container, or granularly. Container provides dynamic selection that automatically changes as you add new VMs into the container.

Name	Type	Size
MYSQL	Virtual machine	13.5 GB
POSTGRESQL	Virtual machine	11.6 GB

+

Add...

-

Remove

Exclusions...

↑

Up

↓

Down

↻

Recalculate

Total size:
25.1 GB

Exclusions

VMs

Disks

Templates

Objects to exclude:

Name	Type
------	------

Add...

Remove

OK

Cancel

Jobs

Beispiel eines Backup-Job-Erstellungsprozesses

New Backup Job

Name

Virtual Machines

Storage

Guest Processing

Schedule

Summary

Storage

Specify processing proxy server to be used for source data retrieval, backup repository to store the backup files produced by this job and customize advanced job settings if required.

Backup proxy: Automatic selection Choose...

Backup repository: Windows Repo (Created by .\veeamadmin at 10/23/2025 10:51 PM.) 271 GB free of 399 GB Map backup

Retention policy: 7 days

☒ Keep certain full backups longer for archival purposes Configure...
4 weekly, 12 monthly, 13 yearly

☐ Configure secondary destinations for this job
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 job settings...

< Previous

Next >

Finish

Cancel

Backup Proxy

Choose backup proxy servers for this job. For redundancy, we recommend to select at least two proxies. When multiple proxies are available, selection will be performed on per-VM basis, taking into account proxy connectivity and current load.

Configure GFS

- ☒ Keep weekly full backups for: 4 weeks
If multiple full backups exist, use the one from: Sunday
- ☒ Keep monthly full backups for: 12 months
Use weekly full backup from the following week of a month: First
- ☒ Keep yearly full backups for: 13 years
Use monthly full backup from the following month: January

Save as default

OK

Cancel

OK

Cancel

Jobs

Beispiel eines Backup-Job-Erstellungsprozesses

New Backup Job

Name

Virtual Machines

Storage

Guest Processing

Schedule

Summary

Storage

Specify processing proxy server to be used for source data retrieval, backup repository to store the backup files produced by this job and customize advanced job settings if required.

Backup proxy: Automatic selection Choose...

Backup repository: Windows Repo (Created by .\veeamadmin at 10/23/2025 10:51 PM.)
271 GB free of 399 GB Map backup

Retention policy: 7 days

☒ Keep certain full backups longer for archival purposes Configure...
4 weekly, 12 monthly, 13 yearly

☐ Configure secondary destinations for this job
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 job settings...

< Previous

Next >

Finish

Cancel

Advanced Settings

Backup

Maintenance

Storage

Notifications

vSphere

Integration

Scripts

☒ Create synthetic full backups periodically on:
Saturday Configure...

☐ Create active full backups periodically on:
Saturday Configure...

Save As Default

OK

Cancel

Jobs

Beispiel eines Backup-Job-Erstellungsprozesses

New Backup Job

Name

Virtual Machines

Storage

Guest Processing

Schedule

Summary

Storage

Specify processing proxy server to be used for source data retrieval, backup repository to store the backup files produced by this job and customize advanced job settings if required.

Backup proxy: Automatic selection Choose...

Backup repository: Windows Repo (Created by .\veeamadmin at 10/23/2025 10:51 PM.) 271 GB free of 399 GB Map backup

Retention policy: 7 days

☒ Keep certain full backups longer for archival purposes Configure...
4 weekly, 12 monthly, 13 yearly

☐ Configure secondary destinations for this job
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 job settings...

< Previous

Next >

Finish

Cancel

Advanced Settings

Backup

Maintenance

Storage

Notifications

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Integration

Scripts

Storage-level corruption guard

☐ Perform backup files health check (detects and auto-heals corruption) on:
At 05:00 on Last Saturday of every month Configure...

Full backup file maintenance

☒ Remove deleted items data after 14 days

☐ Defragment and compact full backup file on:
Last Saturday of every month Configure...

Save As Default

OK

Cancel

Jobs

Beispiel eines Backup-Job-Erstellungsprozesses

New Backup Job

Name

Virtual Machines

Storage

Guest Processing

Schedule

Summary

Storage

Specify processing proxy server to be used for source data retrieval, backup repository to store the backup files produced by this job and customize advanced job settings if required.

Backup proxy: Automatic selection Choose...

Backup repository: Windows Repo (Created by .\veeamadmin at 10/23/2025 10:51 PM.) 271 GB free of 399 GB Map backup

Retention policy: 7 days

☒ Keep certain full backups longer for archival purposes 4 weekly, 12 monthly, 13 yearly Configure...

☐ Configure secondary destinations for this job 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 job settings...

< Previous

Next >

Finish

Cancel

Advanced Settings

Backup

Maintenance

Storage

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Integration

Scripts

Data reduction

☒ Enable inline data deduplication (recommended)

☒ Exclude swap file blocks (recommended)

☒ Exclude deleted file blocks (recommended)

Compression level: Optimal (recommended)

Provides for the best compression to performance ratio, lowest backup proxy CPU usage and fastest restore.

Storage optimization: 1 MB (recommended)

Delivers the optimal combination of backup speed, granular restore performance and repository space consumption.

Encryption

☒ Enable backup file encryption

Password: Created by .\veeamadmin at 11/12/2025 7:10 AM. (Last edited: 2 days ago) Add...

Loss protection disabled Manage passwords

Save As Default

OK

Cancel

Jobs

Beispiel eines Backup-Job-Erstellungsprozesses

New Backup Job

Name

Virtual Machines

Storage

Guest Processing

Schedule

Summary

Storage

Specify processing proxy server to be used for source data retrieval, backup repository to store the backup files produced by this job and customize advanced job settings if required.

Backup proxy: Automatic selection Choose...

Backup repository: Windows Repo (Created by .\veeamadmin at 10/23/2025 10:51 PM.)
271 GB free of 399 GB Map backup

Retention policy: 7 days

☒ Keep certain full backups longer for archival purposes Configure...
4 weekly, 12 monthly, 13 yearly

☐ Configure secondary destinations for this job
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 job settings...

< Previous

Next >

Finish

Cancel

Advanced Settings

Backup

Maintenance

Storage

Notifications

vSphere

Integration

Scripts

☐ Send SNMP notifications for this job

☐ Send email notifications to the following recipients:
Type in one or more email addresses separated by semicolon

☒ Use global notification settings

☐ Use custom notification settings specified below:
Subject:
[%JobResult%] %JobName% (%ObjectCount% objects) %Issues%

☒ Notify on success

☒ Notify on warning

☒ Notify on error

☒ Suppress notifications until the last retry

☐ Set successful backup details to this VM attribute:
Notes
☒ Append to the existing attribute's value

Save As Default

OK

Cancel

Jobs

Beispiel eines Backup-Job-Erstellungsprozesses

New Backup Job

Name

Virtual Machines

Storage

Guest Processing

Schedule

Summary

Storage

Specify processing proxy server to be used for source data retrieval, backup repository to store the backup files produced by this job and customize advanced job settings if required.

Backup proxy: Automatic selection Choose...

Backup repository: Windows Repo (Created by .\veeamadmin at 10/23/2025 10:51 PM.)
271 GB free of 399 GB Map backup

Retention policy: 7 days

☒ Keep certain full backups longer for archival purposes
4 weekly, 12 monthly, 13 yearly

☐ Configure secondary destinations for this job
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 job settings...

< Previous

Next >

Finish

Cancel

Advanced Settings

Backup

Maintenance

Storage

Notifications

vSphere

Integration

Scripts

Guest quiescence

☐ Enable VMware Tools quiescence
Native quiescence will only be used for virtual machines with application-aware image processing disabled.

Changed block tracking

☒ Use changed block tracking data (recommended)

☒ Enable CBT for all protected VMs automatically
Changed Block Tracking (CBT) is a VMware feature that allows for faster incremental backup and replication. For CBT to be enabled, VM must have no existing snapshots.

☒ Reset CBT on each Active Full backup automatically
Provides safety net against potential CBT issues at the cost of slightly increased backup window.

Save As Default

OK

Cancel

Jobs

Beispiel eines Backup-Job-Erstellungsprozesses

New Backup Job

Name

Virtual Machines

Storage

Guest Processing

Schedule

Summary

Storage

Specify processing proxy server to be used for source data retrieval, backup repository to store the backup files produced by this job and customize advanced job settings if required.

Backup proxy: Automatic selection Choose...

Backup repository: Windows Repo (Created by .\veeamadmin at 10/23/2025 10:51 PM.) 271 GB free of 399 GB Map backup

Retention policy: 7 days

☒ Keep certain full backups longer for archival purposes 4 weekly, 12 monthly, 13 yearly Configure...

☐ Configure secondary destinations for this job 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 job settings...

< Previous

Next >

Finish

Cancel

Advanced Settings

Backup

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Integration

Scripts

Primary storage integration

☒ Enable backup from storage snapshots Use storage snapshots (instead of VM snapshots) as the data source for this job. Using storage snapshots reduces impact on the production environment from VM snapshot commit.

☐ Limit processed VM count per storage snapshot to 10 By default, the job will process all included VMs located on the same datastore from a single storage snapshot.

☒ Failover to standard backup Perform standard backup from VM snapshot if backup from storage snapshot fails.

☐ Failover to primary storage snapshot Use primary storage snapshots as the data source if backup from secondary storage snapshot fails.

Save As Default

OK

Cancel

Jobs

Beispiel eines Backup-Job-Erstellungsprozesses

New Backup Job

Name

Virtual Machines

Storage

Guest Processing

Schedule

Summary

Storage

Specify processing proxy server to be used for source data retrieval, backup repository to store the backup files produced by this job and customize advanced job settings if required.

Backup proxy: Automatic selection Choose...

Backup repository: Windows Repo (Created by .\veeamadmin at 10/23/2025 10:51 PM.)
271 GB free of 399 GB Map backup

Retention policy: 7 days

☒ Keep certain full backups longer for archival purposes Configure...
4 weekly, 12 monthly, 13 yearly

☐ Configure secondary destinations for this job
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 job settings...

< Previous

Next >

Finish

Cancel

Advanced Settings

Backup

Maintenance

Storage

Notifications

vSphere

Integration

Scripts

Job scripts

☐ Run the following script before the job:
Browse...

☐ Run the following script after the job:
Browse...

☒ Run scripts every 1 backup session

☐ Run scripts on the selected days only Configure...
Saturday

Save As Default

OK

Cancel

Jobs

Beispiel eines Backup-Job-Erstellungsprozesses

New Backup Job

Name

Virtual Machines

Storage

Guest Processing

Schedule

Summary

Guest Processing

Choose guest OS processing options available for running VMs.

Application-Aware Processing Options

Specify application-aware processing settings for individual items:

Object	Vss	Transaction Logs	Exclusions	Scripts
MYSQL	Require success	SQL: Truncate, Exchange: Tr...	Disabled	No
POSTGRESQL	Require success	SQL: Truncate, Exchange: Tr...	Disabled	

OK Cancel

< Previous Next > Finish Cancel

Processing Settings

General SQL Oracle PostgreSQL Exclusions Scripts

Applications

Application-aware processing detects and prepares applications for consistent backup using application-specific methods, and configures the OS to perform required application restore steps upon first boot.

☒ Require successful processing (recommended)

☐ Try application processing, but ignore failures

☐ Disable application processing

VSS Settings

Choose whether this job should process transaction logs upon successful backup. Logs pruning is supported for Microsoft Exchange, Microsoft SQL Server, and other applications that support Microsoft VSS.

☒ Process transaction logs with this job (recommended)

☐ Perform copy only (lets another application use logs)

Persistent guest agent

By default, application-aware processing on Windows is performed by a non-persistent runtime process. Deploying a persistent agent removes security and port requirements of the runtime process injection.

☐ Use persistent guest agent

OK Cancel

Jobs

Beispiel eines Backup-Job-Erstellungsprozesses

New Backup Job

Name

Virtual Machines

Storage

Guest Processing

Schedule

Summary

Guest Processing

Choose guest OS processing options available for running VMs.

Application-Aware Processing Options

Specify application-aware processing settings for individual items:

Object	Vss	Transaction Logs	Exclusions	Scripts
MYSQL	Require success	SQL: Truncate, Exchange: Tr...	Disabled	No
POSTGRESQL	Require success	SQL: Truncate, Exchange: Tr...	Disabled	

OK Cancel

< Previous Next > Finish Cancel

Processing Settings

General SQL Oracle PostgreSQL Exclusions Scripts

Choose how this job should process Microsoft SQL Server transaction logs:

☐ Truncate logs (prevents logs from growing forever)

☐ Do not truncate logs (requires simple recovery model)

☒ Backup logs periodically (backed up logs will be truncated)

Backup logs every: 30 minutes

Retain log backups:

☐ Until the corresponding image-level backup is deleted

☒ Keep only last: 14 days of log backups

Log shipping servers:

Automatic selection Choose...

OK Cancel

Jobs

Beispiel eines Backup-Job-Erstellungsprozesses

New Backup Job

Name

Virtual Machines

Storage

Guest Processing

Schedule

Summary

Guest Processing

Choose guest OS processing options available for running VMs.

Application-Aware Processing Options

Specify application-aware processing settings for individual items:

Object	Vss	Transaction Logs	Exclusions	Scripts
MYSQL	Require success	SQL: Truncate, Exchange: Tr...	Disabled	No
POSTGRESQL	Require success	SQL: Truncate, Exchange: Tr...	Disabled	Edit...

OK Cancel

< Previous Next > Finish Cancel

Processing Settings

General SQL **Oracle** PostgreSQL Exclusions Scripts

Specify Oracle account with SYSDBA privileges: ⓘ

Use guest credentials Add...

Manage accounts

Archived logs:

☒ Do not delete archived logs

☐ Delete logs older than: 24 hours

☐ Delete logs over: 10 GB

☒ Backup logs every: 45 minutes

Retain log backups:

☐ Until the corresponding image-level backup is deleted

☒ Keep only last: 14 days of log backups

Log shipping servers:

Automatic selection Choose...

OK Cancel

Jobs

Beispiel eines Backup-Job-Erstellungsprozesses

New Backup Job

Name

Virtual Machines

Storage

Guest Processing

Schedule

Summary

Guest Processing

Choose guest OS processing options available for running VMs.

Application-Aware Processing Options

Specify application-aware processing settings for individual items:

Object	Vss	Transaction Logs	Exclusions	Scripts
MYSQL	Require success	SQL: Truncate, Exchange: Tr...	Disabled	No
POSTGRESQL	Require success	SQL: Truncate, Exchange: Tr...	Disabled	Edit...

OK Cancel

< Previous Next > Finish Cancel

Processing Settings

General SQL Oracle PostgreSQL Exclusions Scripts

Specify PostgreSQL account with superuser privileges:

Use guest credentials

Manage accounts

The specified user is:

☒ Database user with password

☐ Database user with password file (.pgpass)

☐ System user without password (peer)

☒ Backup logs every: 45 minutes

Retain log backups:

☐ Until the corresponding image-level backup is deleted

☒ Keep only last: 14 days of log backups

Temporary location for archive logs: (i)

Log shipping servers:

Automatic selection

OK Cancel

Jobs

Beispiel eines Backup-Job-Erstellungsprozesses

New Backup Job

Name

Virtual Machines

Storage

Guest Processing

Schedule

Summary

Guest Processing

Choose guest OS processing options available for running VMs.

Application-Aware Processing Options

Specify application-aware processing settings for individual items:

Object	Vss	Transaction Logs	Exclusions	Scripts
MYSQL	Require success	SQL: Truncate, Exchange: Tr...	Disabled	No
POSTGRESQL	Require success	SQL: Truncate, Exchange: Tr...	Disabled	

Add...

Edit...

Remove

OK

Cancel

Processing Settings

General

SQL

Oracle

PostgreSQL

Exclusions

Scripts

File exclusions:

☒ Disable file level exclusions

☐ Exclude the following files and folders:

Folder

Add...

Remove

☐ Include only the following files and folders:

Folder

Add...

Remove

File selective processing takes additional time proportional to the number of excluded files, and stores extra per-file metadata in backup. Thus, it is best used for excluding larger files, and keeping the total number of excluded files under a few hundred thousands.

OK

Cancel

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Jobs

Beispiel eines Backup-Job-Erstellungsprozesses

New Backup Job

Name

Virtual Machines

Storage

Guest Processing

Schedule

Summary

Guest Processing

Choose guest OS processing options available for running VMs.

Application-Aware Processing Options

Specify application-aware processing settings for individual items:

Object	Vss	Transaction Logs	Exclusions	Scripts
MYSQL	Require success	SQL: Truncate, Exchange: Tr...	Disabled	No
POSTGRESQL	Require success	SQL: Truncate, Exchange: Tr...	Disabled	Edit...

OK Cancel

< Previous Next > Finish Cancel

Processing Settings

General SQL Oracle PostgreSQL Exclusions Scripts

Script processing mode

☐ Require successful script execution

☐ Ignore script execution failures

☒ Disable script execution

Windows scripts

Pre-freeze script: Browse...

Post-thaw script: Browse...

Linux scripts

Pre-freeze script: Browse...

Post-thaw script: Browse...

OK Cancel

Jobs

Beispiel eines Backup-Job-Erstellungsprozesses

New Backup Job

Name

Virtual Machines

Storage

Guest Processing

Schedule

Summary

Guest Processing

Choose guest OS processing options available for running VMs.

☒ 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.

Application handling options for individual machines

☒ Enable guest file system indexing and malware detection

Indexing enables global file search functionality, automatic detection of suspicious file system activity and known malware files.

Indexing options for individual machines

Guest interaction proxy:

Automatic selection

Choose...

Guest OS credentials:

.\administrator (.\administrator, last edited: 41 days ago)

Add...

Manage accounts

Guest OS credentials for individual machines

Verify network connectivity and credentials

< Previous

Next >

Finish

Cancel

Jobs

Beispiel eines Backup-Job-Erstellungsprozesses

New Backup Job

Name

Virtual Machines

Storage

Guest Processing

Schedule

Summary

Schedule

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

☒ 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: Hyper-V - Windows and Linux (Created by .\veeamadmin at 9/3/2025 12:04 P... ▾

Automatic retry

☒ Retry failed items processing: 3 ▾ ▴ times

Wait before each retry attempt for: 15 ▾ ▴ minutes

Backup window

☒ Terminate the job outside of the allowed backup window

Long running or accidentally started jobs will be terminated to prevent impact on your production infrastructure during busy hours.

Window... ▾

< Previous

Apply

Finish

Cancel

Time Periods

All None

12 1 2 3 4 5 6 7 8 9 10 11 12 1 2 3 4 5 6 7 8 9 10 11

AM PM

Sunday

Monday

Tuesday

Wednesday

Thursday

Friday

Saturday

Permitted

Denied

OK

Cancel

Jobs

Beispiel eines Backup-Job-Erstellungsprozesses

New Backup Job

Name

Virtual Machines

Storage

Guest Processing

Schedule

Summary

Summary

You have successfully created the new backup job.

Configuration has been successfully saved.
Name: Backup Job Example
Target Path: C:\BACKUPS
Type: VMware Backup
Enable application-aware processing
Enable guest file system indexing
Source items:
 MYSQL (10.0.0.240)
 POSTGRESQL (10.0.0.240)

PowerShell cmdlet for starting the job:
Get-VBRJob -Name "Backup Job Example" | Start-VBRJob

Run the job when I click Finish

< Previous

Next >

Finish

Cancel

Lass uns eine
5-minütige
Pause machen

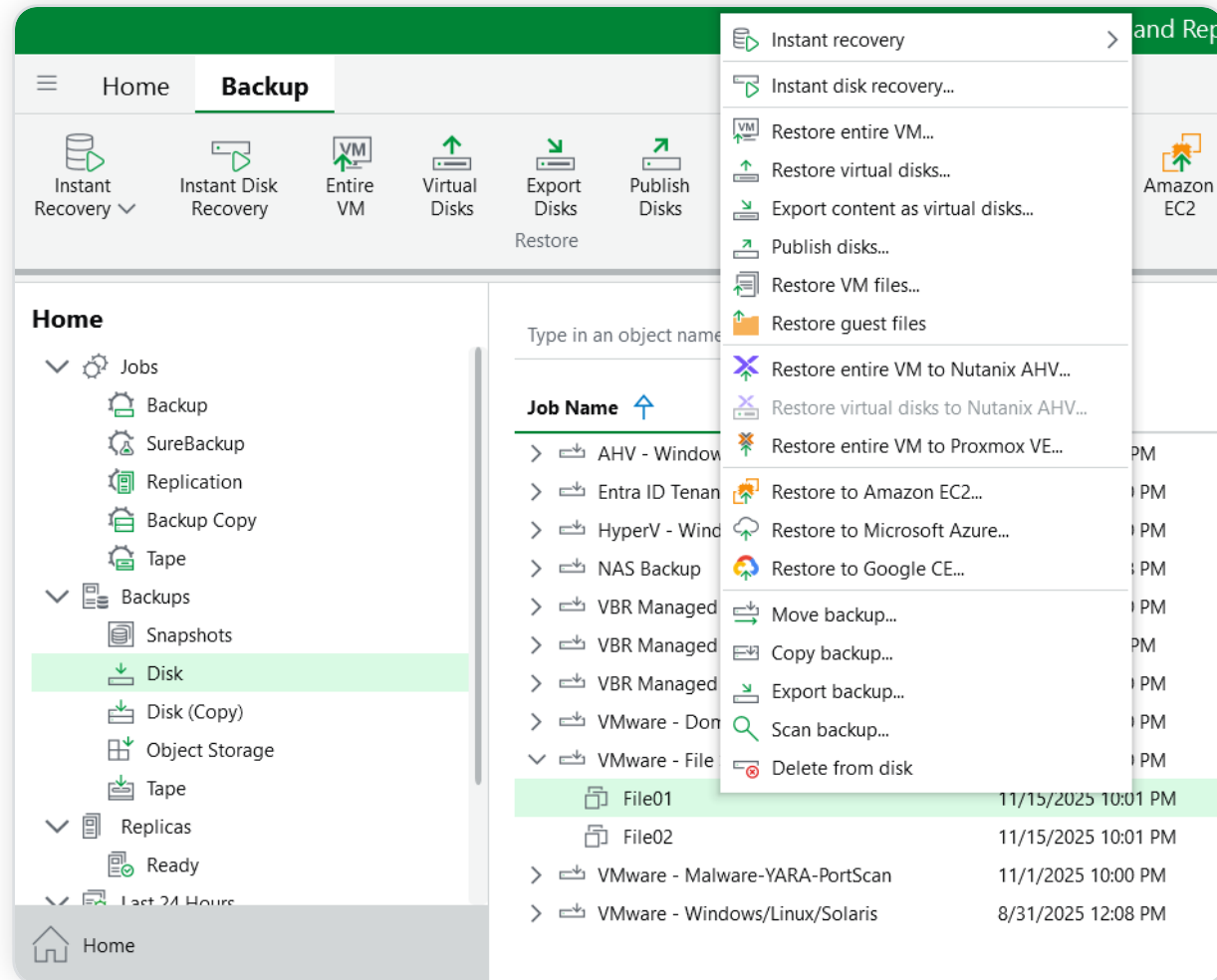


Wiederherstellung



Wiederherstellung

Zahlreiche Wiederherstellungsoptionen, um die Wiederherstellungszeit zu verkürzen.



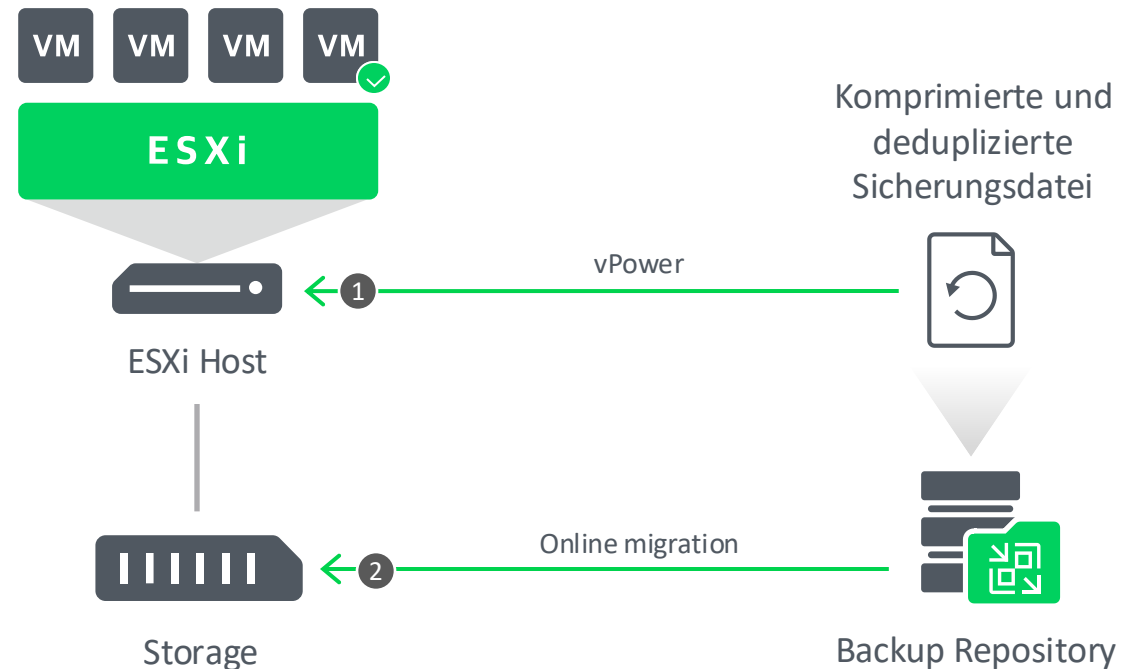
- Wiederherstellung der gesamten VM
- Instant recovery
- Wiederherstellung virtueller Festplatten
- Instant disk recovery
- Wiederherstellung von VM-Dateien
- Wiederherstellung von Gastdateien
- Anwendungsobjekte wiederherstellen
- Wiederherstellung auf Amazon EC2; Azure; Google CE
- Wiederherstellung auf Nutanix AHV
- Wiederherstellung auf Proxmox VE
- Inhalte als virtuelle Festplatten exportieren
- Festplatten veröffentlichen

Instant Recovery

Mit Instant Recovery kann man eine VM fast **sofort** in der Produktionsumgebung wiederherstellen, indem man sie direkt aus der komprimierten und deduplizierten Sicherungsdatei ausführt.

Instant Recovery hilft dabei, Wiederherstellungsziele (RTOs) zu verbessern und Unterbrechungen sowie Ausfallzeiten von produktiven VMs zu minimieren.

Instant Recovery kann verwendet werden, um Daten **hypervisorübergreifend** wiederherzustellen und ebenso, um von einem **physischen Server auf eine VM** wiederherzustellen.

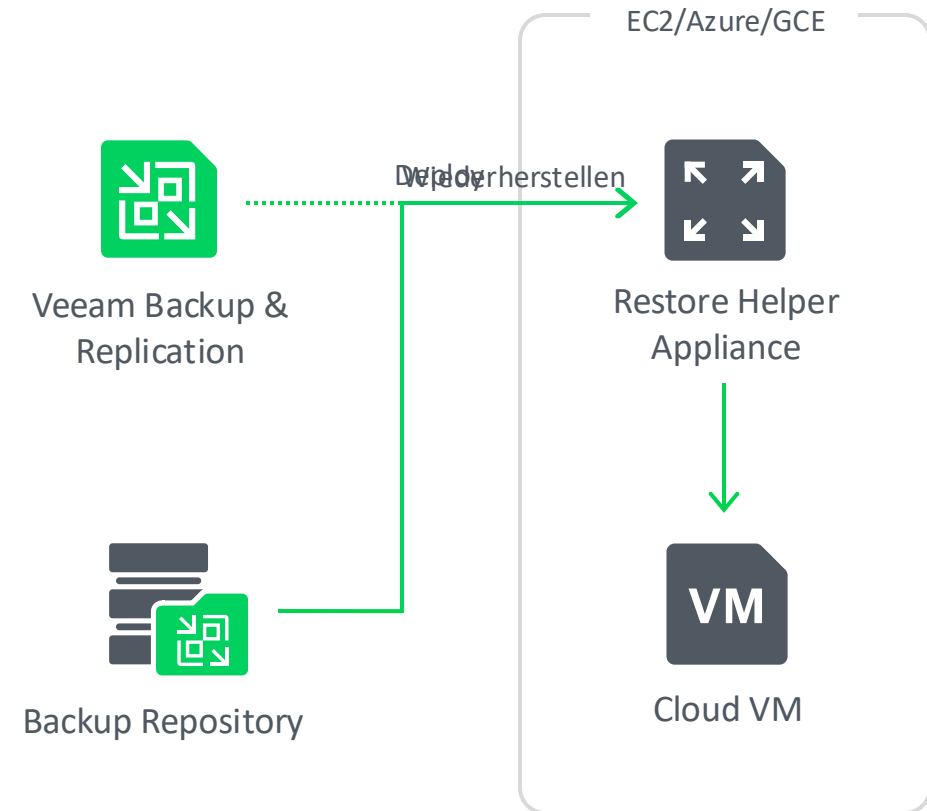


Wiederherstellung nach Amazon EC2/Azure/Google CE

Ermöglicht es, **VMs** und **physische Workloads** in die Cloud wiederherzustellen.

Im Fall von **Amazon EC2** und **Google CE** stellt VBR die Helper-Appliance automatisch nur für die Dauer des Wiederherstellungsvorgangs bereit und entfernt sie unmittelbar danach wieder. Die Helper-Appliance ist **optional**, kann die **Wiederherstellungsleistung** jedoch deutlich **verbessern**.

Azure-Helper-Appliances sind **verpflichtend** und **dauerhaft**. Nachdem der Wiederherstellungsprozess abgeschlossen ist, werden Hilfsappliances ausgeschaltet und verbleiben in Azure. Die Appliances bleiben im ausgeschalteten Zustand, bis Sie einen neuen Wiederherstellungsprozess starten.



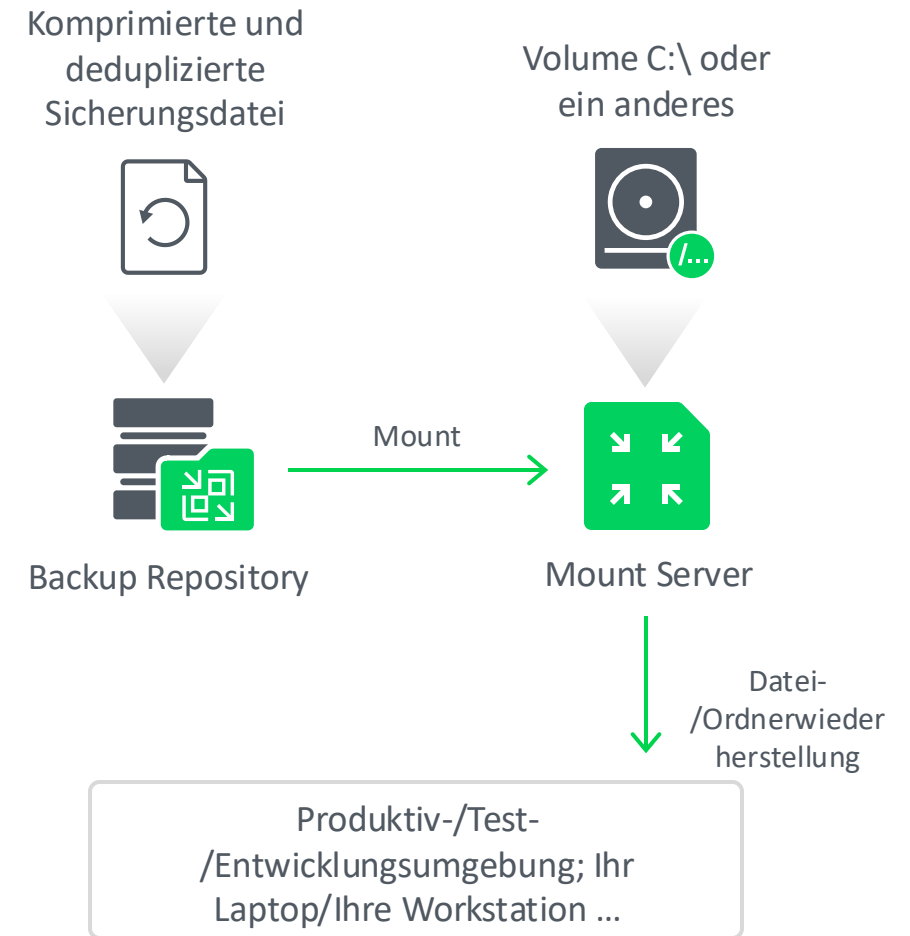
Wiederherstellung von Gastdateien (FLR)

Es ist möglich, **einzelne** Dateien direkt aus dem Gastbetriebssystem wiederherzustellen, ohne die gesamte VM oder den physischen Server wiederherzustellen.

Unterstützte Wiederherstellungsquellen: Backups, Replikas, Storage-Snapshots, Nutanix AHV Snapshots

Unterstützte Dateisysteme:

- **Windows:** FAT, FAT32, NTFS, ReFS
- **Linux:** ext2, ext3, ext4, ReiserFS, JFS, XFS, Btrfs, NTFS
- **BSD, Mac, Solaris** werden ebenfalls unterstützt.



Wiederherstellung von Anwendungsobjekten

Explorer stehen für die folgenden Anwendungen zur Verfügung:

Microsoft Active Directory

Microsoft SQL Server

Oracle PostgreSQL

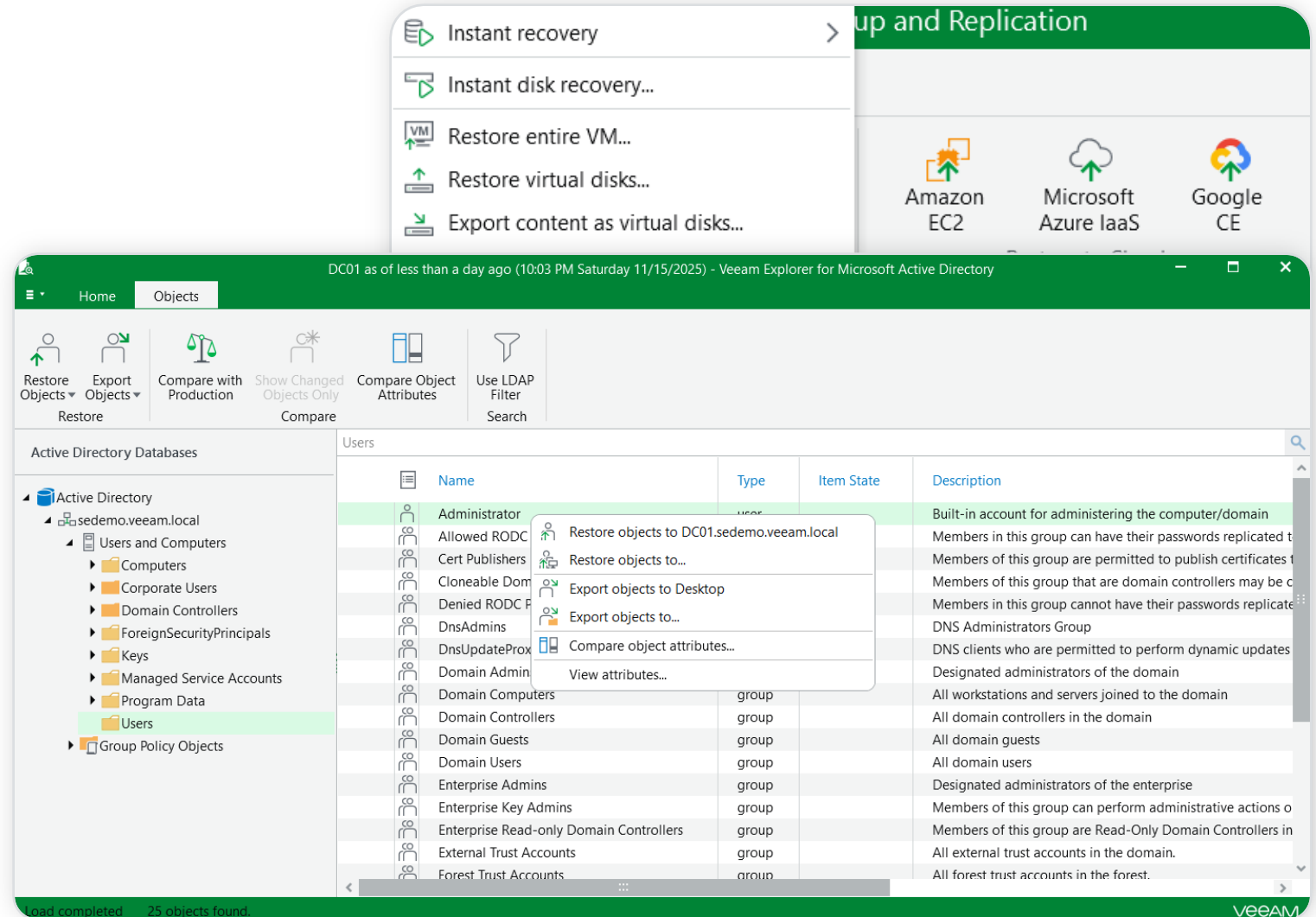
Microsoft Exchange

Microsoft SharePoint

Microsoft OneDrive für Business

Microsoft Teams

Um sie zu verwenden, stellen Sie sicher, dass Ihre Backups und Replikas mit aktivierter anwendungsorientierter Verarbeitung erstellt werden.



Wie stellt man eine VM wieder her?

The screenshot shows the Veeam Backup & Replication console interface. The 'Backup' tab is selected in the top navigation bar. In the left sidebar, under 'Jobs', the 'Disk' option is highlighted with a green arrow and a circled '1'. In the main pane, the 'Entire VM' button is highlighted with a green arrow and a circled '2'. A context menu is open over the 'Entire VM' button, showing various recovery options. The 'Restore entire VM...' option is highlighted with a green arrow and a circled '2'. Below the context menu, a table lists backup jobs.

Job Name	
> AHV - Wind	
> Entra ID Ten	
> HyperV - W	
> NAS Backup	
> VBR Manag	
> VBR Manag	
> VBR Manag	
> VMware - D	
> VMware - Fi	
File01	11/15/2025 10:01 PM
File02	11/15/2025 10:01 PM
> VMware - Malware-YARA-PortScan	11/1/2025 10:00 PM
> VMware - Windows/Linux/Solaris	8/31/2025 12:08 PM

Wie stellt man eine VM wieder her?

The screenshot shows the 'Entire VM Restore' wizard in Veeam Backup & Replication. The 'Virtual Machines' step is active, showing a list of virtual machines to restore. A green arrow points to the 'Point...' button, indicating the next step in the process.

Entire VM Restore

Virtual Machines

Select virtual machines to be restored. You can add individual virtual machines from backup files, or containers from live environment (containers will be automatically expanded into plain VM list).

Virtual machines to restore:

Name	Size	Restore point
DC01	100 GB	less than a day ago (10:03 PM Sa...

Buttons: Add..., Point..., Remove

Restore Points

Available restore points for DC01:

Job	Type	Tapes	Backup set date	Media pool	Media set
VMware - Domain Controller (Primary on Premises Repository)					
less than a day ago (10:03 PM Saturday 11/15/2025)	Full (W)				
7 days ago (10:03 PM Saturday 11/8/2025)	Full				
14 days ago (10:03 PM Saturday 11/1/2025)	Full				
VMware - Domain Controller on Tape					
73 days ago (10:09 AM Wednesday 9/3/2025)	Full	SW0BJ006, SW...	73 days ago ...	GFS Media Pool	Daily media s...

Navigation: < Previous, Next >, Finish, Cancel

Wie stellt man eine VM wieder her?

The screenshot shows the 'Entire VM Restore' wizard window. The title bar says 'Entire VM Restore'. The main heading is 'Restore Mode' with a subtext: 'Specify whether selected VMs should be restored back to the original location, or to a new location or with different settings.' On the left, there is a sidebar with four items: 'Virtual Machines', 'Restore Mode' (highlighted with a green arrow), 'Secure Restore', 'Reason', and 'Summary'. The main area contains three radio button options: 'Restore to the original location' (selected with a blue dot and a green arrow), 'Restore to a new location, or with different settings', and 'Staged restore'. Below these is a link 'Pick proxy to use'. At the bottom, there is a checkbox 'Quick rollback (restore changed blocks only)' which is checked with a blue checkmark and a green arrow. The description for this checkbox is: 'Allows for quick VM recovery in case of guest OS software problem, or user error. Do not use this option when recovering from disaster caused by hardware or storage issue, or power loss.' At the bottom right, there are four buttons: '< Previous', 'Next >' (highlighted with a blue border), 'Finish', and 'Cancel'.

Entire VM Restore

Restore Mode
Specify whether selected VMs should be restored back to the original location, or to a new location or with different settings.

Virtual Machines

Restore Mode

Secure Restore

Reason

Summary

☒ **Restore to the original location**
Quickly initiate the restore of selected VM to its original location, with the original name and settings. This option minimizes the chance of user input error.

☐ **Restore to a new location, or with different settings**
Customize the restored VM location, and change its settings. The wizard will automatically populate all controls with the original VM settings as the defaults.

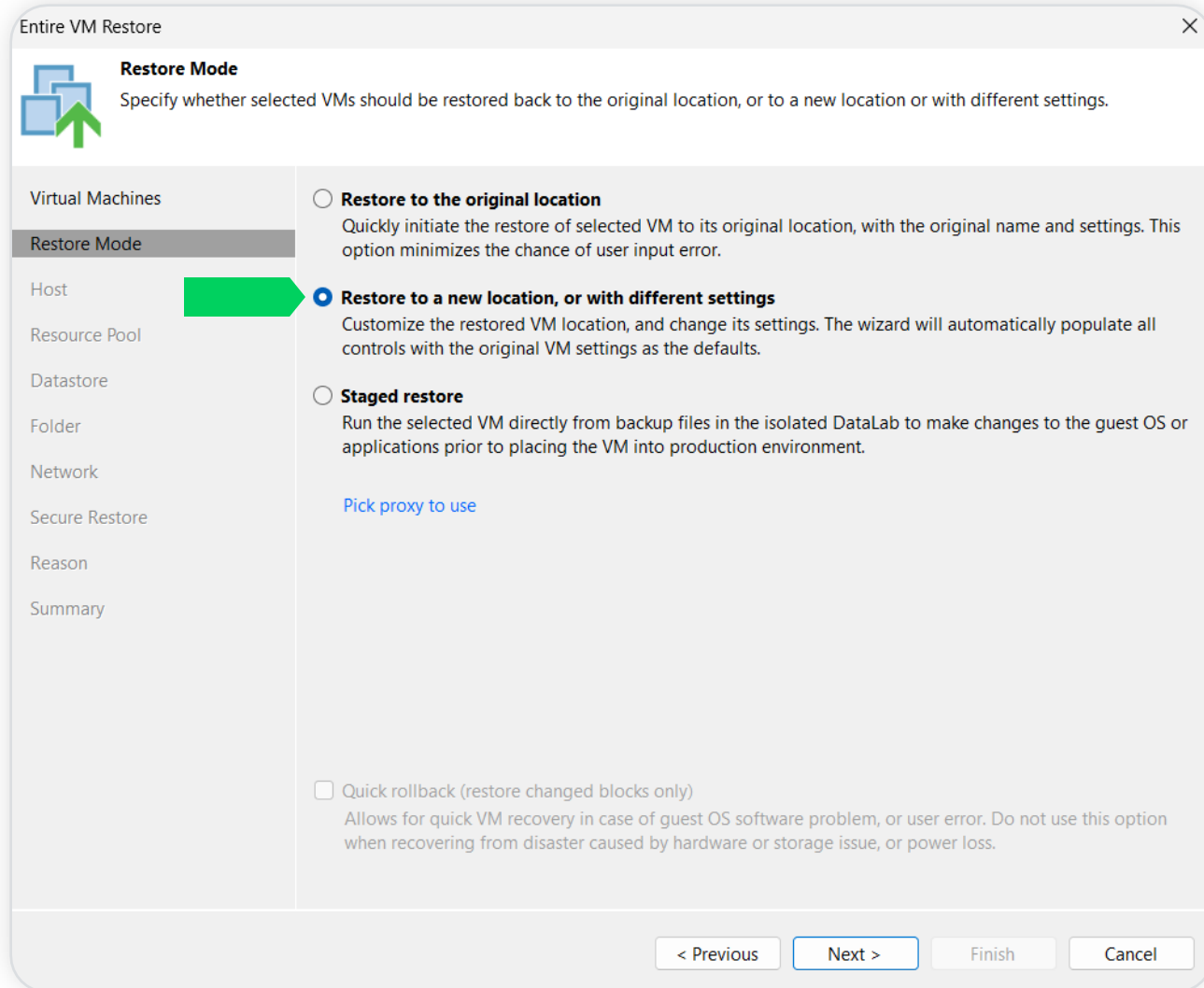
☐ **Staged restore**
Run the selected VM directly from backup files in the isolated DataLab to make changes to the guest OS or applications prior to placing the VM into production environment.

[Pick proxy to use](#)

☒ **Quick rollback (restore changed blocks only)**
Allows for quick VM recovery in case of guest OS software problem, or user error. Do not use this option when recovering from disaster caused by hardware or storage issue, or power loss.

< Previous Next > Finish Cancel

Wie stellt man eine VM wieder her?



Entire VM Restore

Restore Mode
Specify whether selected VMs should be restored back to the original location, or to a new location or with different settings.

Virtual Machines

Restore Mode

Host

Resource Pool

Datastore

Folder

Network

Secure Restore

Reason

Summary

☐ **Restore to the original location**
Quickly initiate the restore of selected VM to its original location, with the original name and settings. This option minimizes the chance of user input error.

☒ **Restore to a new location, or with different settings**
Customize the restored VM location, and change its settings. The wizard will automatically populate all controls with the original VM settings as the defaults.

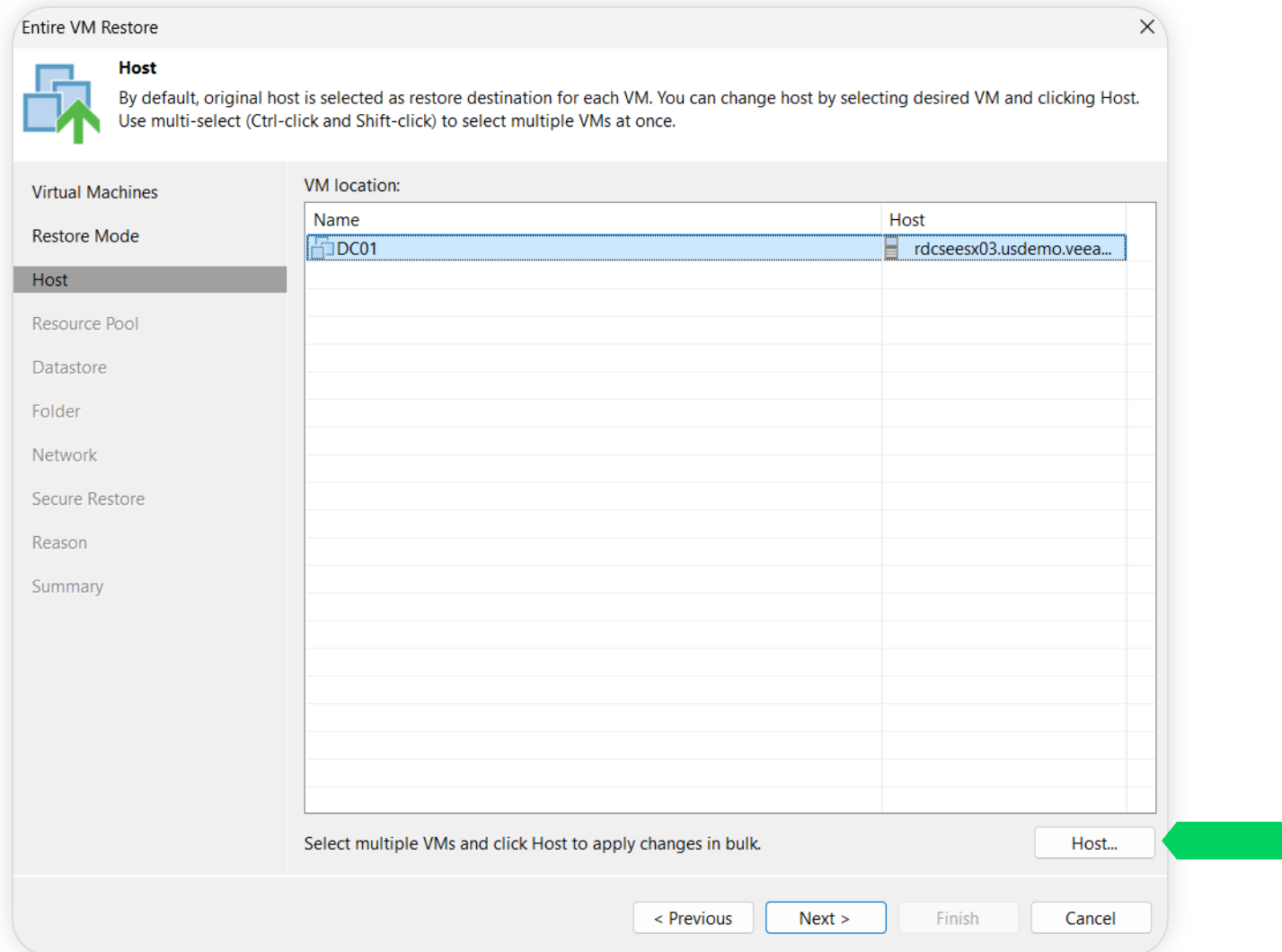
☐ **Staged restore**
Run the selected VM directly from backup files in the isolated DataLab to make changes to the guest OS or applications prior to placing the VM into production environment.

[Pick proxy to use](#)

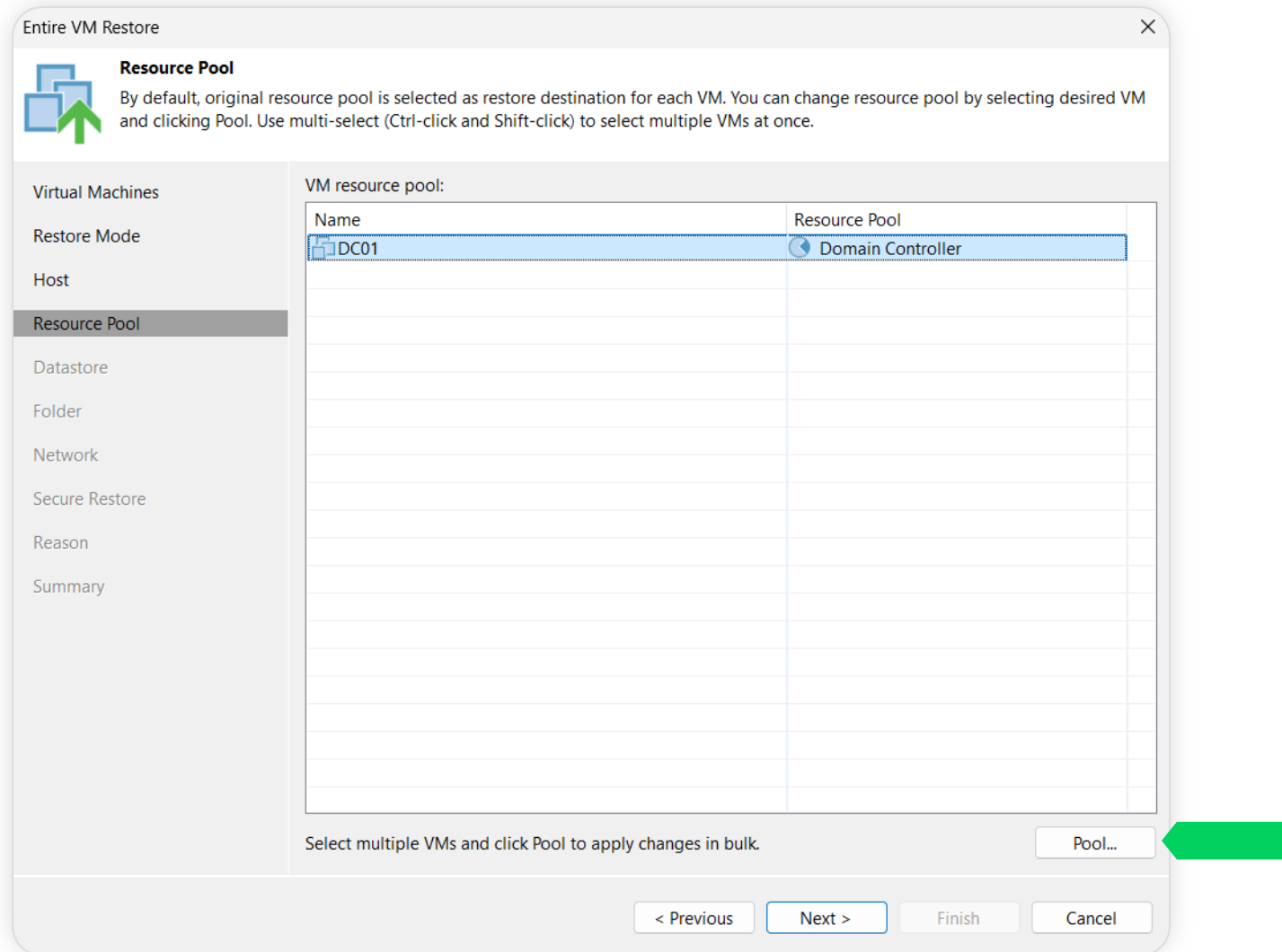
☐ **Quick rollback (restore changed blocks only)**
Allows for quick VM recovery in case of guest OS software problem, or user error. Do not use this option when recovering from disaster caused by hardware or storage issue, or power loss.

< Previous Next > Finish Cancel

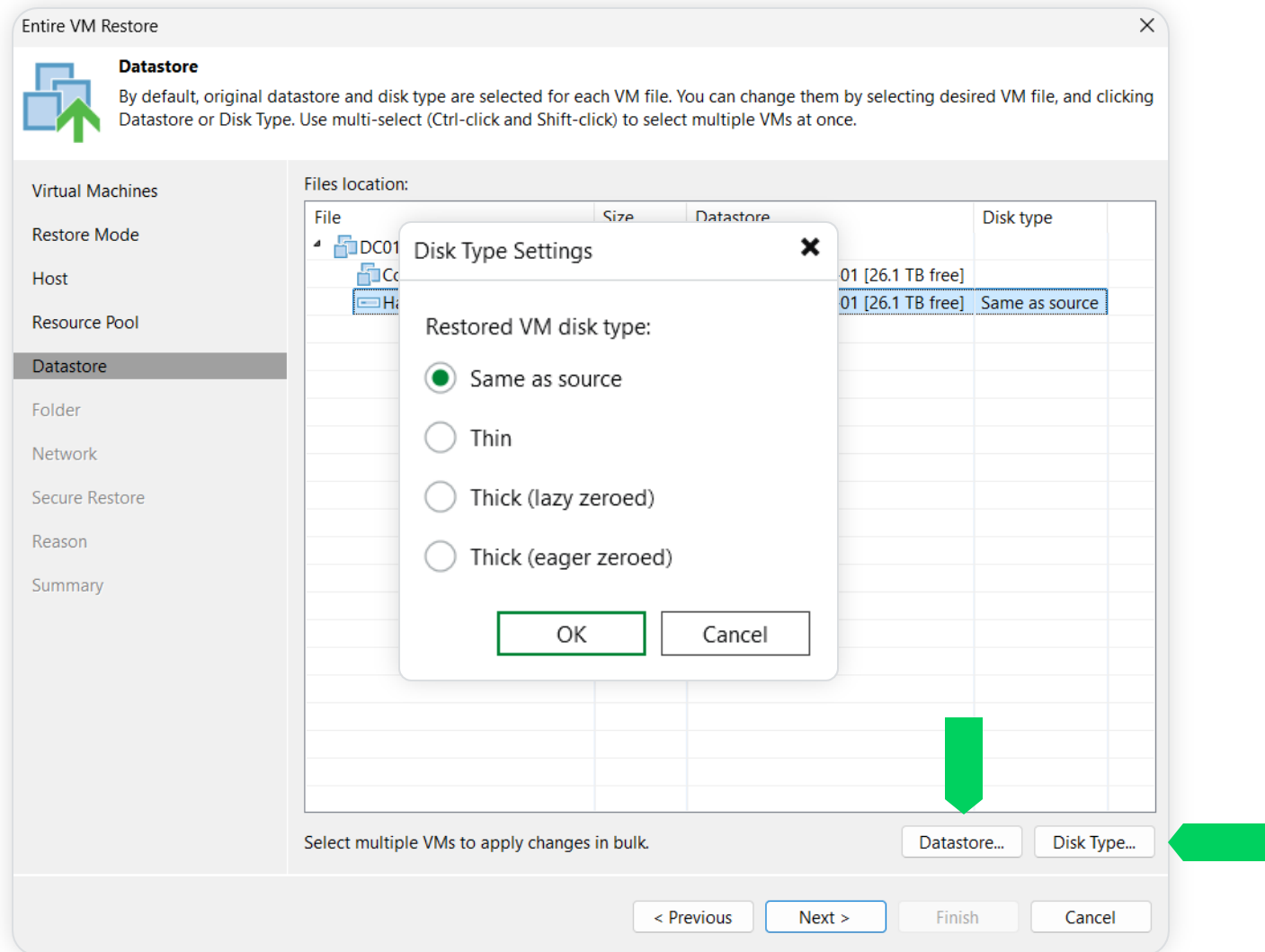
Wie stellt man eine VM wieder her?



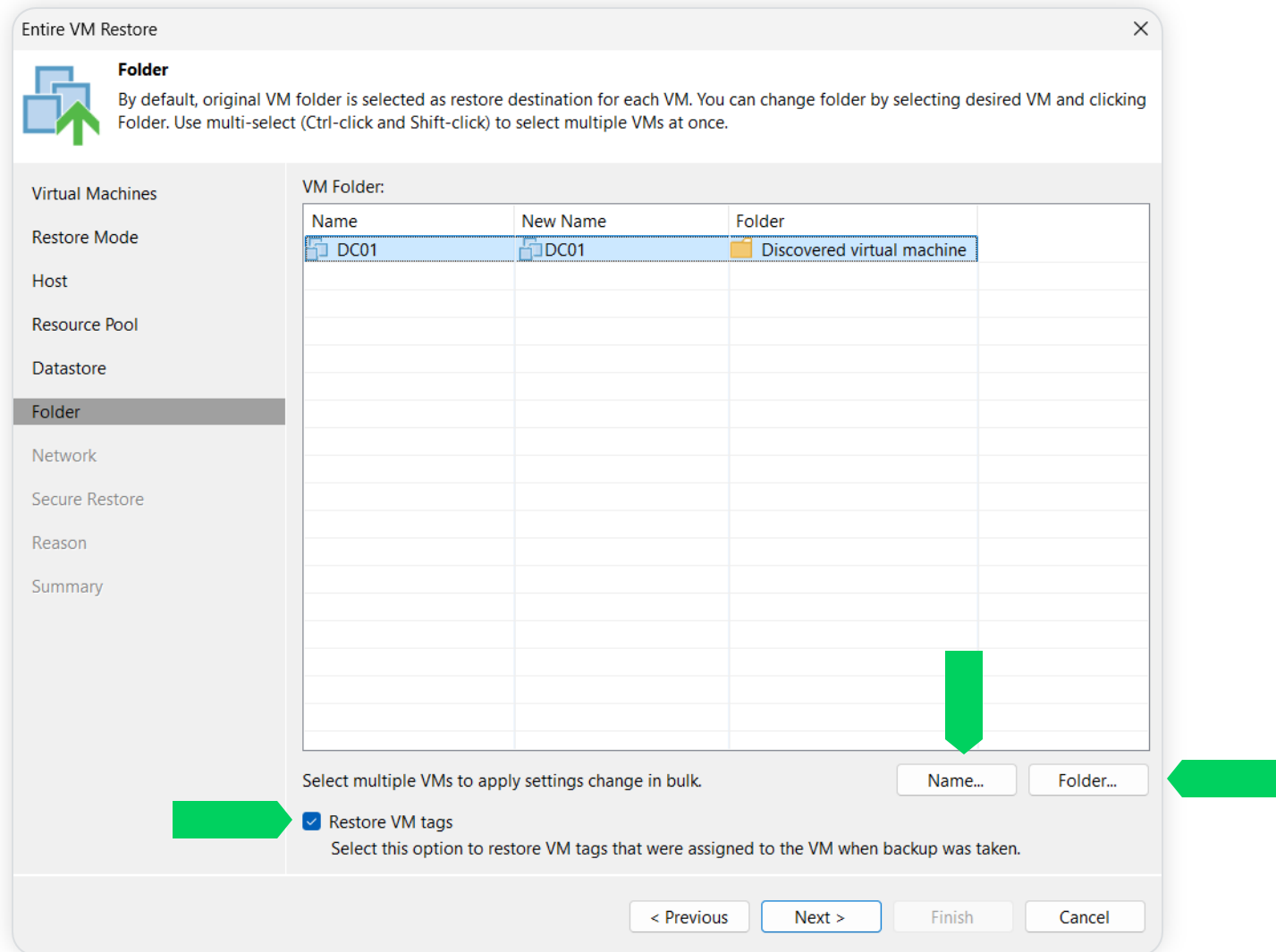
Wie stellt man eine VM wieder her?



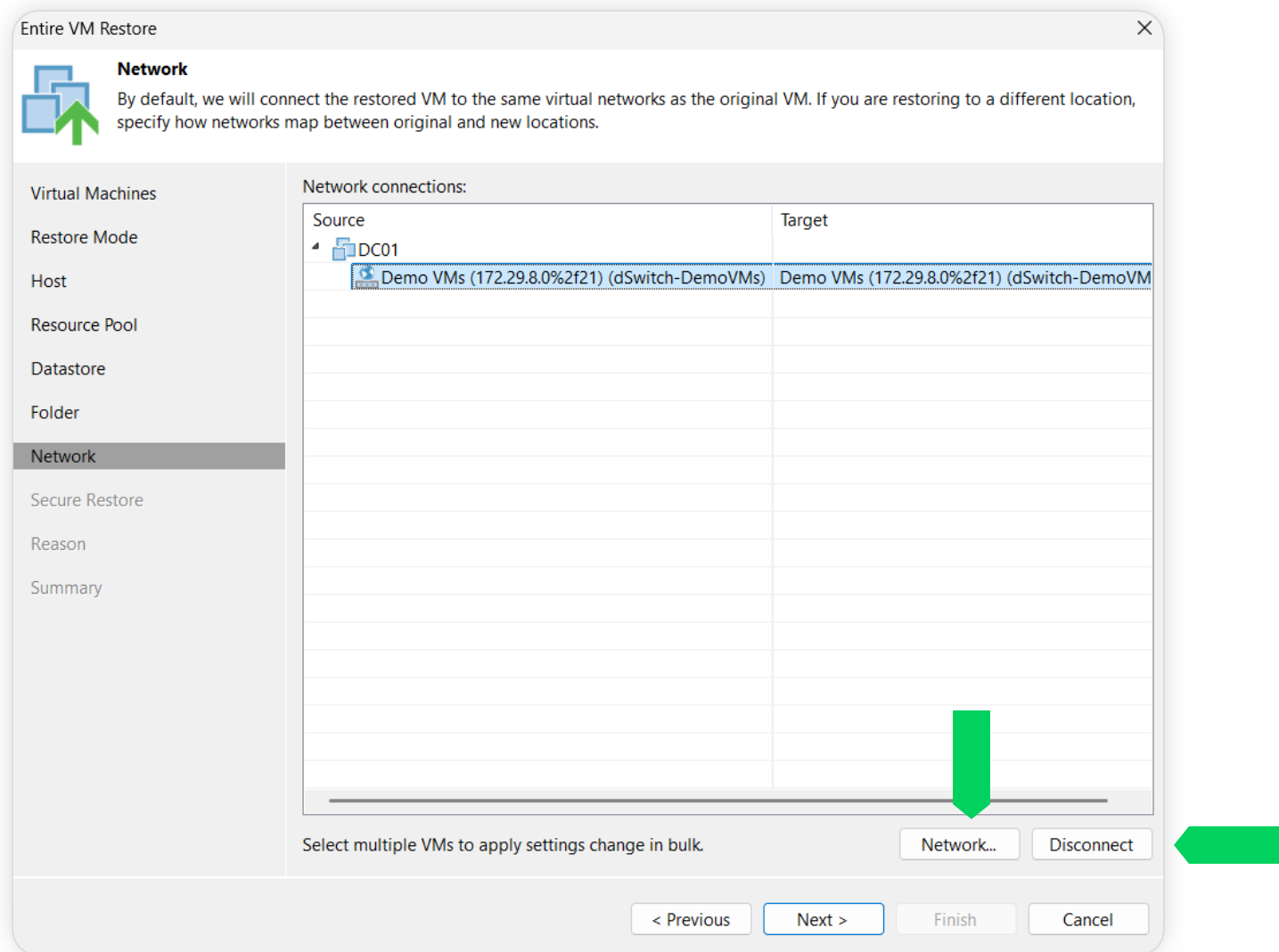
Wie stellt man eine VM wieder her?



Wie stellt man eine VM wieder her?




Wie stellt man eine VM wieder her?



Wie stellt man eine VM wieder her?

Entire VM Restore



Secure Restore
Scan the selected backup for malware, such as computer viruses or ransomware, prior to performing the restore. This requires a compatible antivirus installed on the mount server specified for the corresponding backup repository.

Virtual Machines

Restore Mode

Host

Resource Pool

Datastore

Folder

Network

Secure Restore

Reason

Summary

Content scan

☒ Scan restore point with Veeam Threat Hunter

☒ Scan the restore point with the following YARA rule:

FindFileByParameters.yara

[Copy YARA rules location to clipboard](#)

Scan options:

☒ If malware is found

☐ Proceed with recovery but disable network adapters

☐ Abort VM recovery

☐ Continue scanning all remaining files after the first occurrence

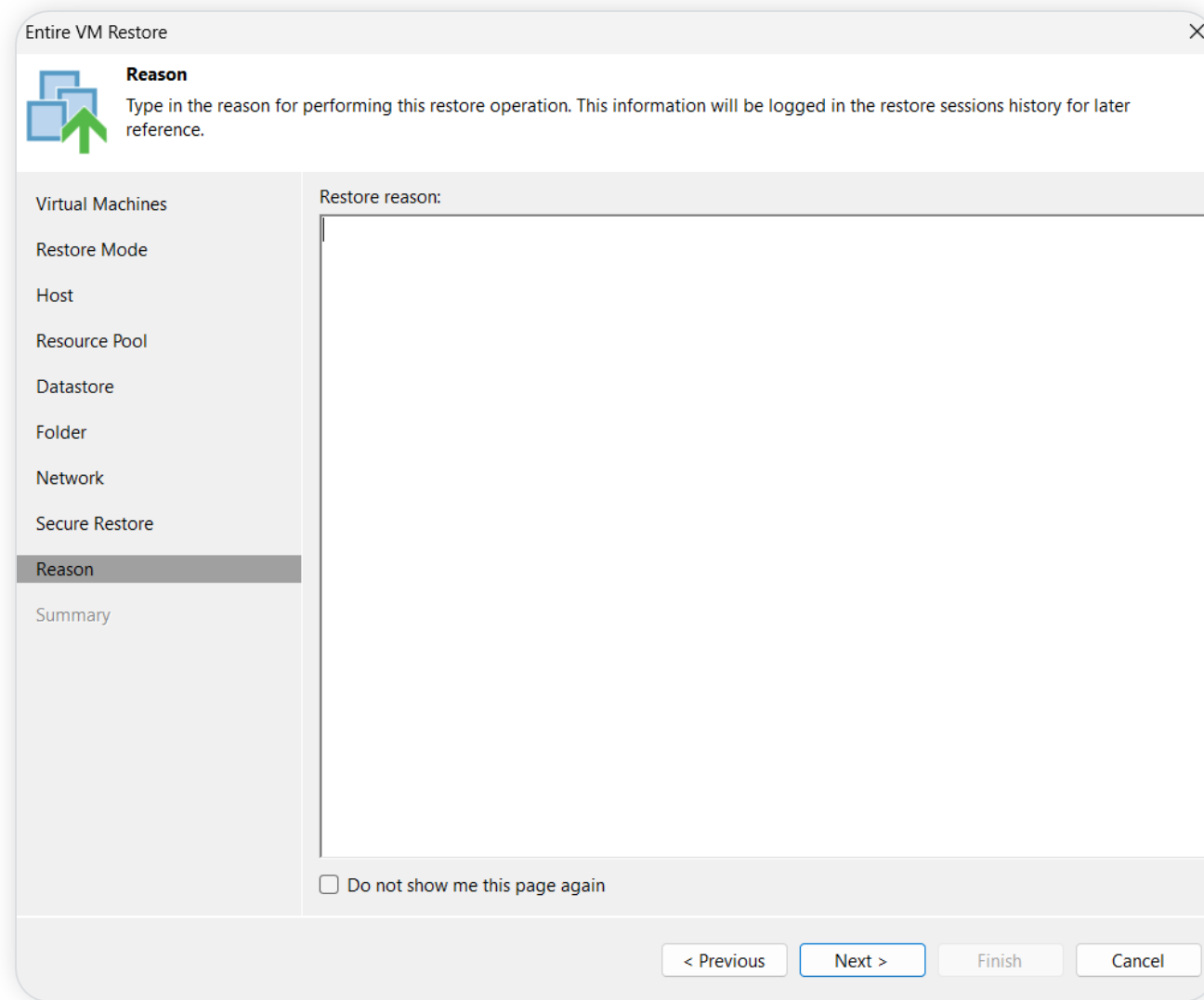
< Previous

Next >

Finish

Cancel

Wie stellt man eine VM wieder her?



Entire VM Restore

Reason
Type in the reason for performing this restore operation. This information will be logged in the restore sessions history for later reference.

Virtual Machines
Restore Mode
Host
Resource Pool
Datastore
Folder
Network
Secure Restore
Reason
Summary


Restore reason:

☐ Do not show me this page again

< Previous Next > Finish Cancel

Wie stellt man eine VM wieder her?

Entire VM Restore

**Summary**
Review the restore settings and click Finish to start the restore process.

Virtual Machines

Restore Mode

Host

Resource Pool

Datastore

Folder

Network

Secure Restore

Reason


Summary

Summary:

Original machine name: DC01
New machine name: new_DC01_restored
Restore point: less than a day ago (10:03 PM Saturday 11/15/2025)
Target host: rdcseesx03.usdemo.veeam.local
Target resource pool: Domain Controller
Target VM folder: Discovered virtual machine
Target datastore: rdcsestor01-demo-01
Network mapping:
Demo VMs (172.29.8.0%2f21) (dSwitch-DemoVMs) -> Demo VMs (172.29.8.0%2f21) (dSwitch-DemoVMs)

Scan the restore point with an antivirus prior to performing recovery.
Scan the restore point with the following YARA rule: FindFileByParameters.yara.
If malware is found, proceed with recovery but disable network adapters.

Proxy: Automatic selection



☒ Power on target VM after restoring

< Previous

Next >

Finish

Cancel

Sicherheit



Best Practices: Sicherheit & Resilienz

Security & Compliance Analyzer

Veeam Backup & Replication stellt ein integriertes Tool bereit, mit dem sichergestellt wird, dass Ihre Backup-Serverkonfiguration die **Sicherheits-Best Practices** für Veeam-Backup-Infrastrukturkomponenten auf Basis von Microsoft Windows Server und Linux-Betriebssystemen einhält.

Es umfasst **14 Sicherheitsprüfungen** und **23 Produktkonfigurationsprüfungen**.

Security & Compliance Analyzer

The following best practices are guidelines from data protection and cyber-security experts. Not following them exposes your backup infrastructure to significant risks and reduces chances of successful recovery following a cyber attack, a natural disaster or a hardware malfunction.

Best practice	Status
Backup infrastructure security	
Secure Boot should be enabled	✓ Passed
Firewall should be enabled	✓ Passed
SMBv1 protocol should be disabled	✓ Passed
SMBv3 signing and encryption should be enabled	✓ Passed
Latest software updates should be installed	✓ Passed
System should use a security module	✓ Passed
Auditd should be enabled and configured to forward audit logs	✓ Passed
OS should be in FIPS mode	✓ Passed
Address space layout randomization (ASLR) should be used	✓ Passed
OS should be configured to use TCP syncookies	✓ Passed
World-writable directories should not be executable	✓ Passed
Services with known security issues should be disabled	✓ Passed
Local accounts credentials should follow password length and complexity recommenda...	✗ Not implemented
Audit binaries should be owned by root	✓ Passed
Product configuration	
MFA for the backup console should be enabled	✗ Not implemented
Immutable or offline (air gapped) media should be used	✓ Passed
Password loss protection should be enabled	✓ Passed
Backup server should not be a part of the production domain	✓ Passed

Copy to Clipboard

Close

Analyze

Schedule...

Suppress

Reset

Reset All

Status

Stopped

Stopped

Stopped

Stopped

Stopped

WaitingTape

Stopped

Stopped

Stopped

Stopped

Stopped

Stopped

Last run...

Best Practices: Sicherheit & Resilienz

Multi-Faktor-Authentifizierung

Veeam Backup & Replication unterstützt zur **zusätzlichen Benutzerverifizierung** die **Multi-Faktor-Authentifizierung (MFA)**.

Ein in der mobilen Authentifikator-Anwendung generiertes **Einmalpasswort (OTP)** wird als zweite Verifizierungsmethode verwendet. In Kombination mit **Anmelde- und Kennwortdaten** schafft dies eine sicherere Umgebung und schützt Benutzerkonten davor, kompromittiert zu werden.

The screenshot shows the 'Users & Roles' configuration window in Veeam Backup & Replication. The 'Security' tab is selected. A modal dialog titled 'Configure multi-factor authentication (MFA)' is open. It contains two steps: 1. Scan the QR code with your Authenticator app: (A QR code is displayed, and a manual key 'JJWESMSVLFJVURTU' is provided as an alternative). 2. Enter the one-time code shown in the app: (A text input field with a placeholder 'Type in the code' and a 'Confirm' button). Below the dialog, the 'Enable multi-factor authentication (MFA)' checkbox is checked, and the 'Enable auto logoff after' dropdown is set to '10 min of inactivity'. The 'OK' and 'Cancel' buttons are at the bottom right.

Users & Roles

Security Roles Authorization Identity Provider

User or group Role

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Configure multi-factor authentication (MFA)

1. Scan the QR code with your Authenticator app:

Or enter the following key manually:

JJWESMSVLFJVURTU

2. Enter the one-time code shown in the app:

Type in the code

Confirm

☒ Enable multi-factor authentication (MFA)

☐ Enable auto logoff after 10 min of inactivity

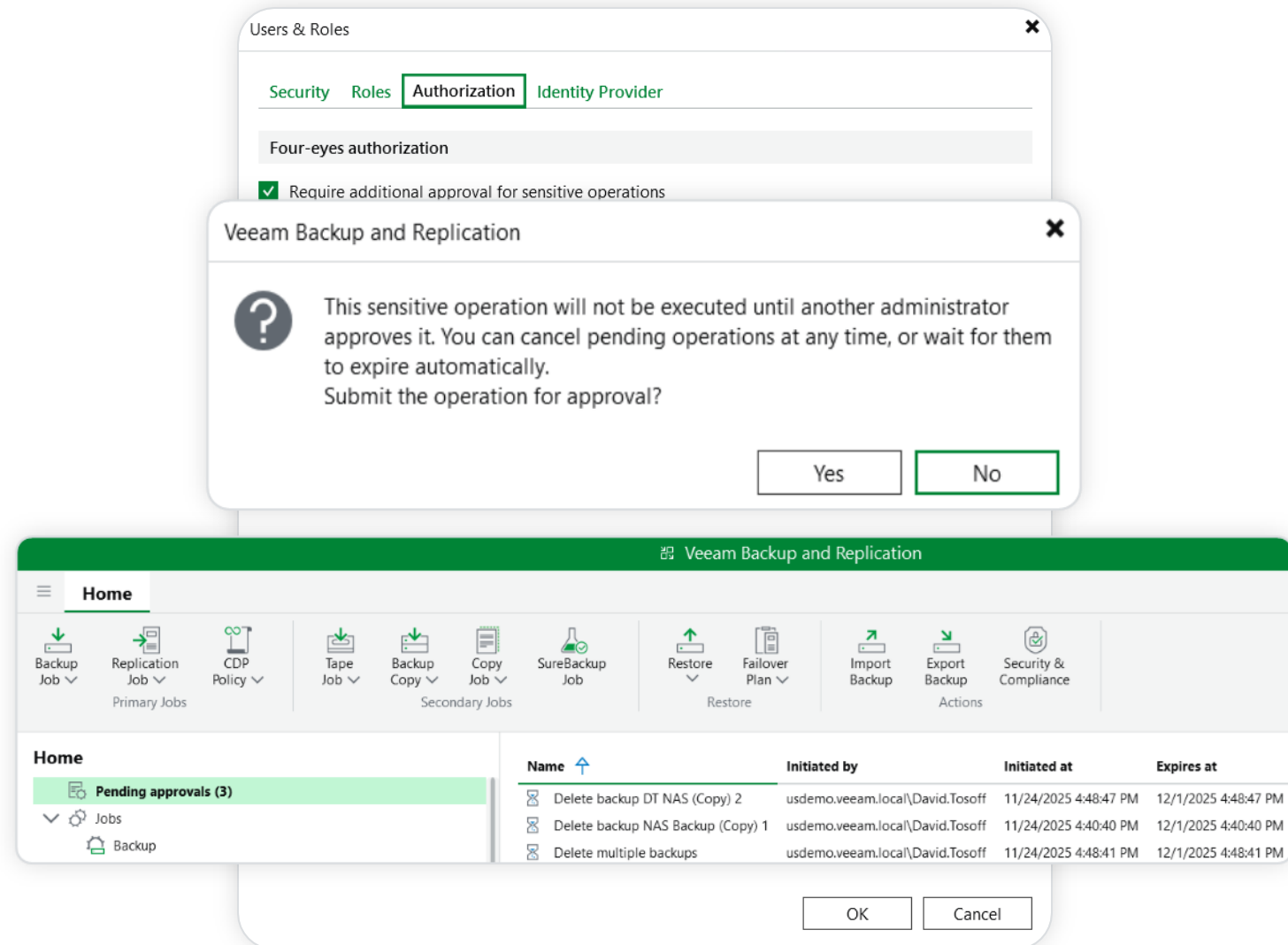
OK Cancel

Best Practices: Sicherheit & Resilienz

Vier-Augen-Prinzip

Diese Funktion verhindert das versehentliche oder fehlerhafte Löschen von **Backups** oder **ganzen Backup-Repositorys**, Änderungen an **Benutzern**, **Rollen** und anderen **Zugriffseinstellungen** über eine Backup-Konsole, indem sie eine **Genehmigung** durch **einen zweiten Veeam Backup-Administrator** erfordert, bevor die angeforderten Änderungen an diesen sensiblen Backup-Server-Einstellungen übernommen werden können.

Alle Ereignisse im Zusammenhang mit der Vier-Augen-Autorisierung werden in der Ansicht „**History**“ unter dem Knoten „**Authorization Events**“ angezeigt.



Best Practices: Sicherheit & Resilienz

Malware-Erkennung

Die Malware-Erkennung mit Veeam konzentriert sich auf die Erkennung von Malware und verdächtigen Aktivitäten sowohl in der Produktions- als auch in der Backup-Infrastruktur und versendet entsprechende Benachrichtigungen.

Ab Veeam Version 12.1 können wir sogar die schlummernde Malware in der Produktion identifizieren. Das Scannen der bereits durchgeführten und gespeicherten Backups im Repository ist ebenfalls möglich.



Best Practices: Sicherheit & Resilienz

Malware-Erkennung. On-Demand-Scan auf Malware und Inhalte.

Nutzt **Antivirus-** und/oder **YARA-Scan**.

Bietet **drei Scanmodi** mit mehreren Bereichen:

- (Erste) saubere Backup(s) finden
- Sauberes Backup im Bereich finden
- Inhalte finden (z. B. Kreditkartennummern)

Der Scan erfolgt auf dem **Mount-Server**.

Scan Backup

Performs an ad-hoc scan of your backups with an antivirus or YARA engine to find the latest malware-free restore point, or to detect a presence of specific data, such as personal information.

Scan mode:

☒ Find the last clean restore point
Restore points will be scanned sequentially starting from the most recent one until the first malware-free backup is found. Use this option when a cyber-attack is known to have started recently.

☐ Find the last clean restore point in range
Restore points will be scanned in the optimal order to identify the last clean backup with least scans possible. Use this option if you are unsure when an attack started or when dealing with a sleeping malware.

☐ Scan content of all restore points in range
All restore points in range will be scanned sequentially. Use this option for backup content analysis with an applicable YARA rule, for example when looking for personally identifiable information (PII), personal health information (PHI) or payment card industry (PCI) data.

Scan engine:

☐ Scan restore points with Veeam Threat Hunter

☐ Scan restore points with the following YARA rule:

Select a YARA rule to use

Copy YARA rules location to clipboard

Scan range:

From:	To:
<input checked="" type="radio"/> Most recent restore point	<input checked="" type="radio"/> Oldest available restore point
<input type="radio"/> Start date: 11/16/2025	<input type="radio"/> End date: 11/15/2025

☐ Continue scanning all remaining files after the first occurrence

Hide Scan Range

OKCancel

Best Practices: Sicherheit & Resilienz

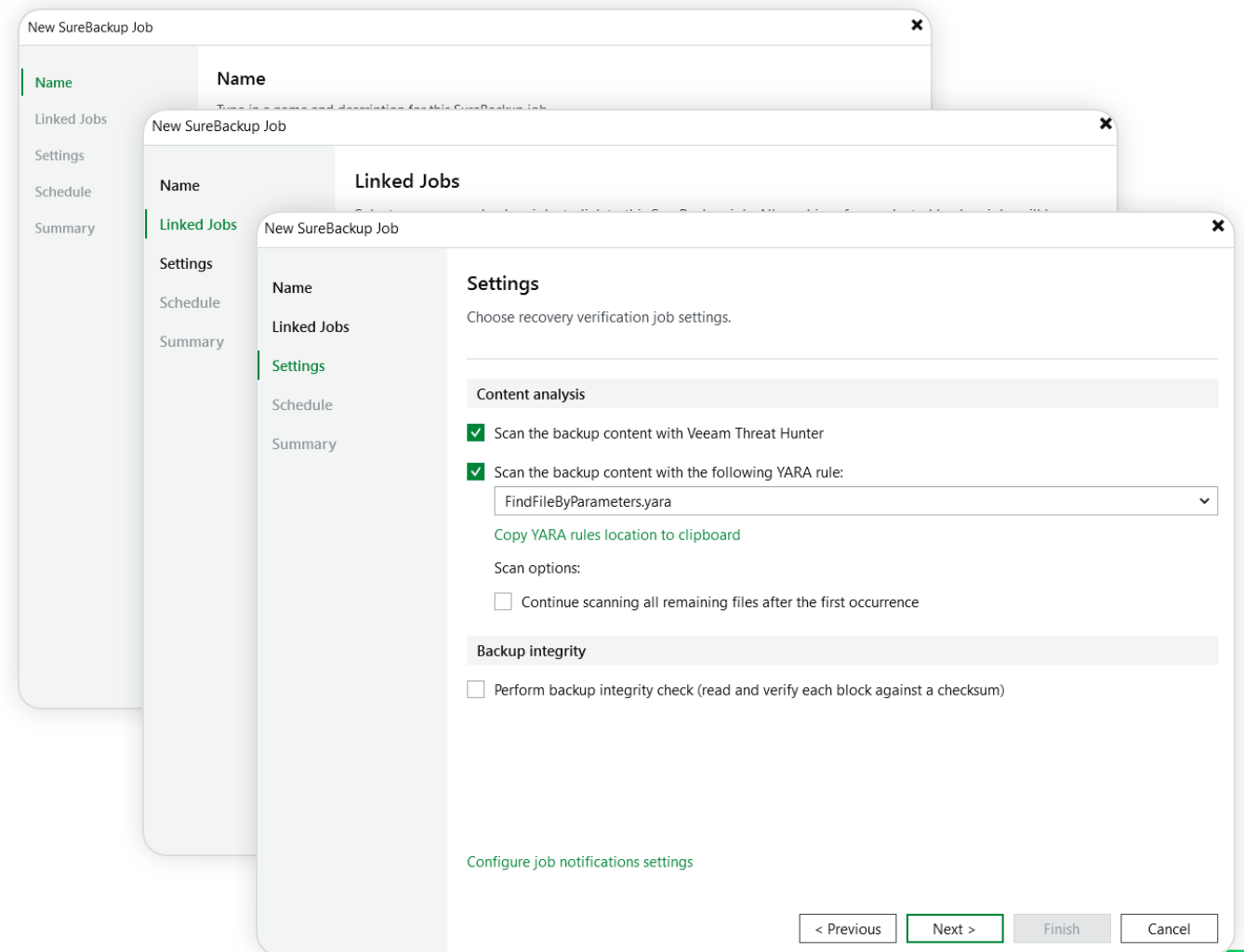
Malware-Erkennung. Automatisierte Malware- und Inhaltsprüfungen.

In einem **SureBackup-Job** aktivieren.

Nutzt **Antivirus-** und/oder **YARA-Scan**.

Scannt den **gesamten Backup-Auftrag**
(Ausschlüsse sind möglich).

Der Scan erfolgt auf dem **Mount-Server**.



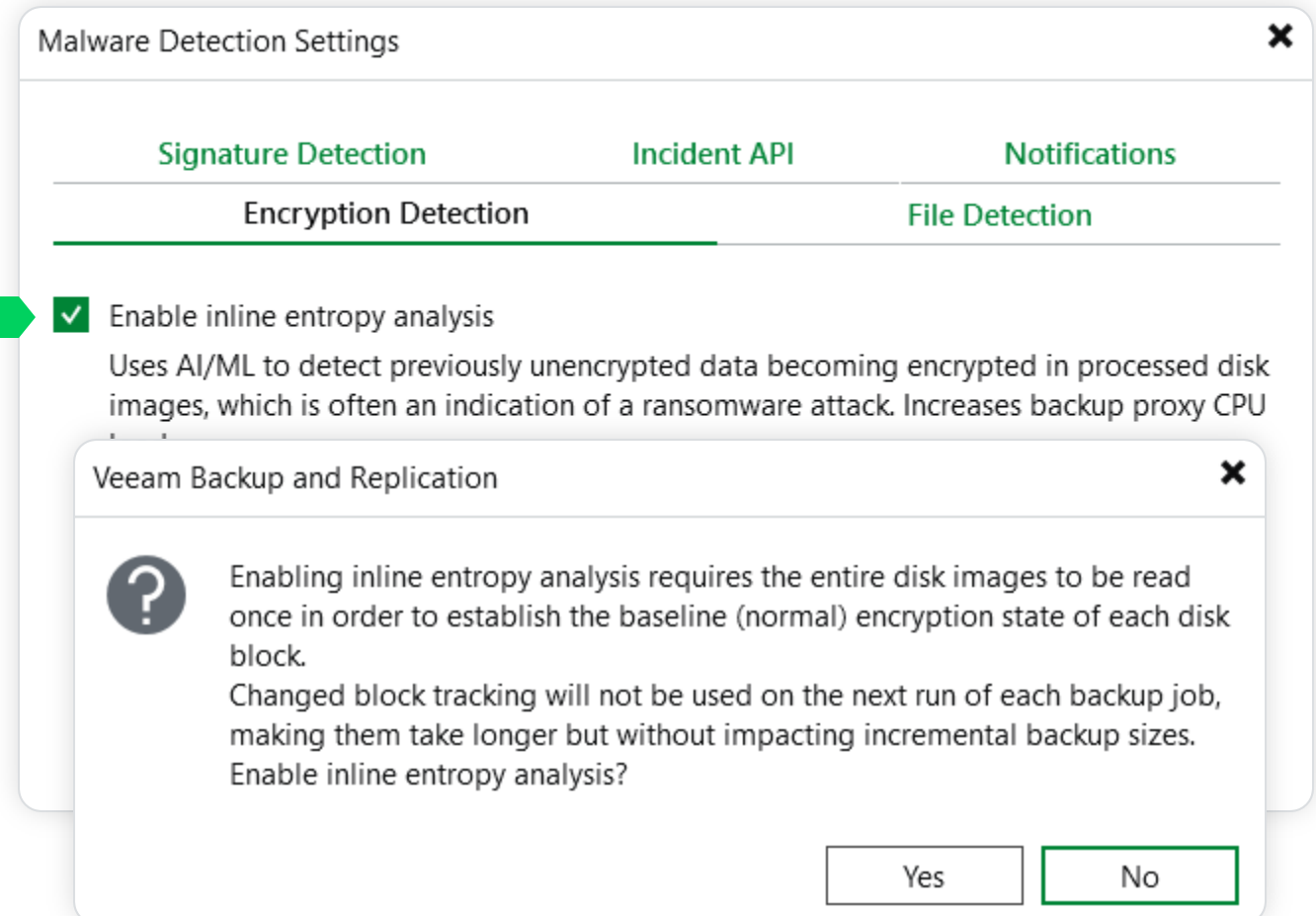
Best Practices: Sicherheit & Resilienz

Malware-Erkennung. Inline-Scan: Verschlüsselung und Textanalyse.

Analysiert Daten auf Blockebene während der Sicherung.

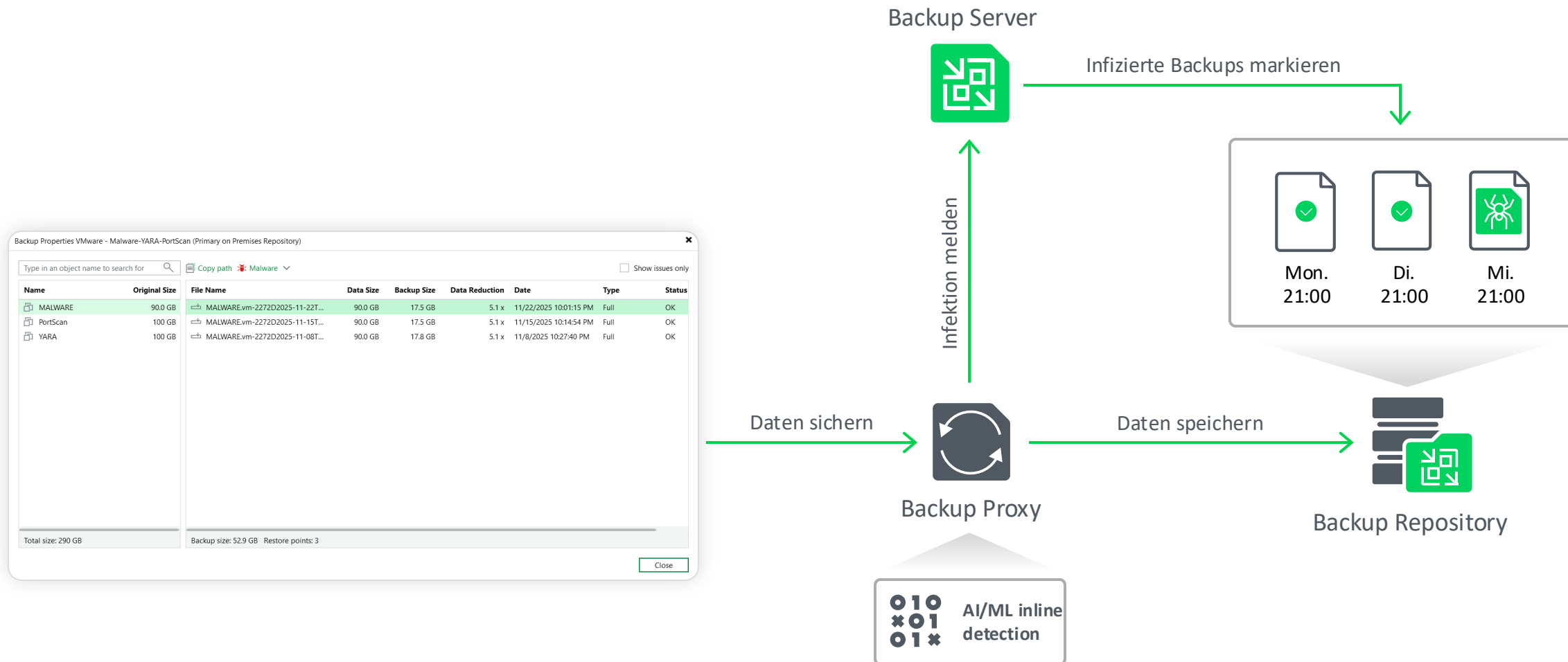
Mithilfe eines **trainierten Machine-Learning-Modells** und einer **Low-Impact-Entropieanalyse** kann Veeam durch Ransomware **verschlüsselte Daten erkennen**.

Die gleiche Engine erkennt **andere Anzeichen von Malware oder Cyberangriffen** wie Onion-Links direkt im Backup-Stream.



Best Practices: Sicherheit & Resilienz

Malware-Erkennung. So funktioniert Inline-Scan.



Best Practices: Sicherheit & Resilienz

Malware-Erkennung. Indikatoren für Kompromittierung.

Veeam nutzt die **Dateisystemindizierung**, um das **Auftreten von Hacker-Toolkit-Dienstprogrammen, Datenexfiltration, Befehls- und Kontrollfunktionen** sowie den **Zugriff auf Anmeldedaten** zu erkennen und zu melden. Die Liste der erkannten Tools wird von Veeam kontinuierlich aktualisiert.

Es sucht auch nach Dateien mit bekannten **Malware-Dateiendungen, Lösegeldforderungen** und **ähnlichen Anzeichen** für das **Vorhandensein von Malware**.

Malware Detection Settings

Signature Detection

Incident API

Notifications

Encryption Detection

File Detection

Detects suspicious activity on the file system based on guest-file indexing. This functionality requires guest file indexing enabled in the backup job settings.

☒

File system activity analysis

Detects the appearance of suspicious files and the deletion or renaming of a large number of existing files.

Suspicious files to monitor...

☒

Indicators of compromise detection

Detects the appearance of early indicators of compromise, such as tools commonly used by hackers to breach environment or exfiltrate data.

Attack tactics to monitor...

☒

Update malware definitions automatically

OK

Cancel

Best Practices: Sicherheit & Resilienz

Malware-Erkennung. Signaturerkennung.

Veeam Threat Hunter kombiniert die **Geschwindigkeit** von YARA mit den umfangreichen **Erkennungsfunktionen** von Antivirenlösungen.

Integriert in Veeam Backup & Replication bietet es eine **schnellere und umfassendere Malware-Erkennung** als eigenständige Antivirenlösungen.

Malware Detection Settings

Encryption Detection

File Detection

Signature Detection

Incident API

Notifications

Detection engine:

☒ Veeam Threat Hunter (recommended)

Leverages machine learning and heuristic analysis to detect advanced threats including malware with polymorphic capabilities. Malware signatures are updated a few times per day to include newly developing threats.

☐ Scan content of archive files (takes longer)

☐ Bring your own antivirus (slower)

Uses your existing antivirus software preinstalled on mount hosts. Command line integration triggers antivirus software scan and waits for it to return an error code to determine the scan result.

Proactive investigation

☒ Perform signature-based scan when malware event appears

Perform an automated signature-based scan of the backup whenever a potential malware activity has been detected.

☐ Mark backup as clean if no threats are detected by signature-based scan

OK

Cancel

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Tipps und Tricks

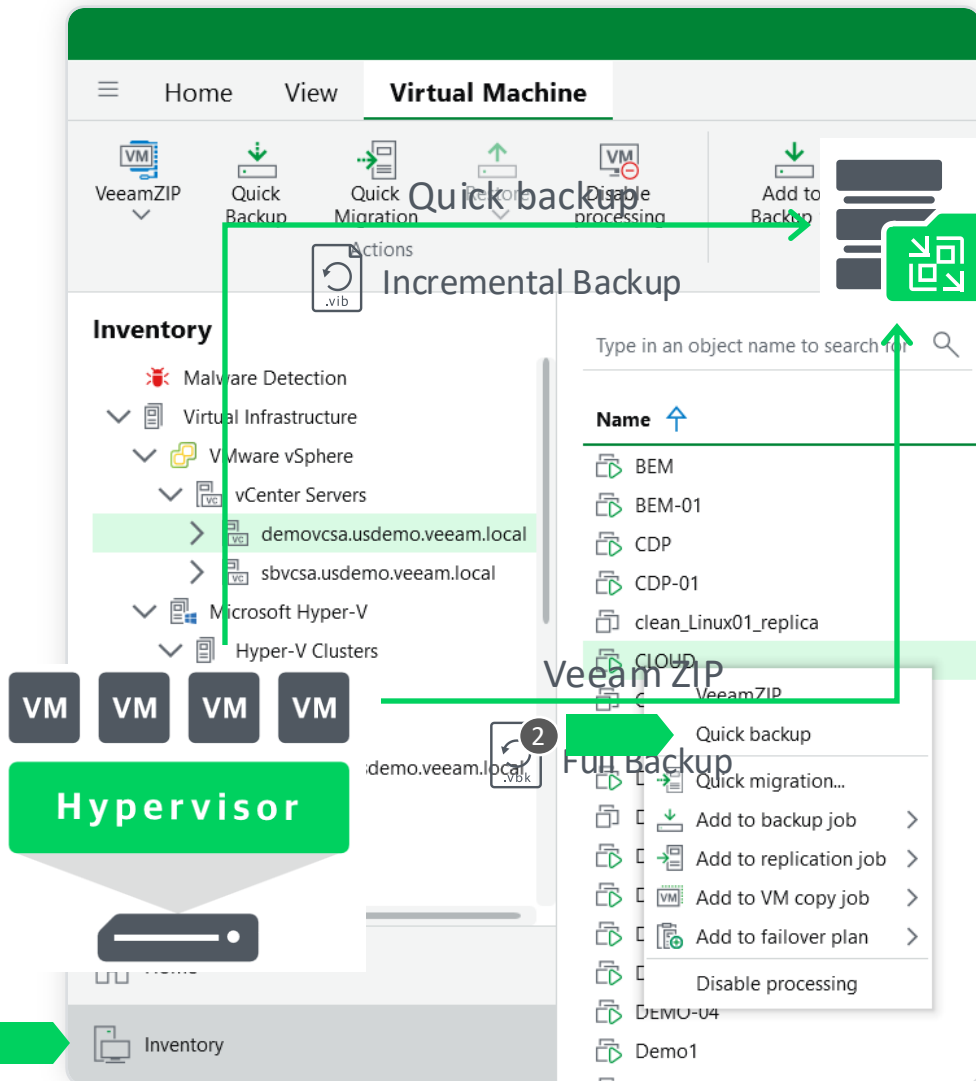


Quick Backup & VeeamZIP

Quick Backup bietet inkrementelle Backups für VMs auf Abruf, ohne dass ein neuer Auftrag eingerichtet werden muss. Es fügt einen zusätzlichen Wiederherstellungspunkt zu bestehenden Backup-Ketten hinzu, der sowohl für inkrementelle als auch für reverse inkrementelle Backups geeignet ist. Allerdings ist dafür ein zuvor erfolgreich durchgeführtes vollständiges Backup für die VMs erforderlich.

VeeamZIP funktioniert wie eine vollständige VM-Sicherung und erstellt eine unabhängige vollständige Sicherungsdatei (.vbk). Sie können diese Datei an verschiedenen Speicherorten ablegen, beachten Sie jedoch: VeeamZIP-Sicherungsdateien werden in der Startansicht unter „Sicherungen [?] Festplatte (exportiert)“ angezeigt.

Quick Backup und VeeamZIP können aus der **Inventaransicht** erstellt werden.



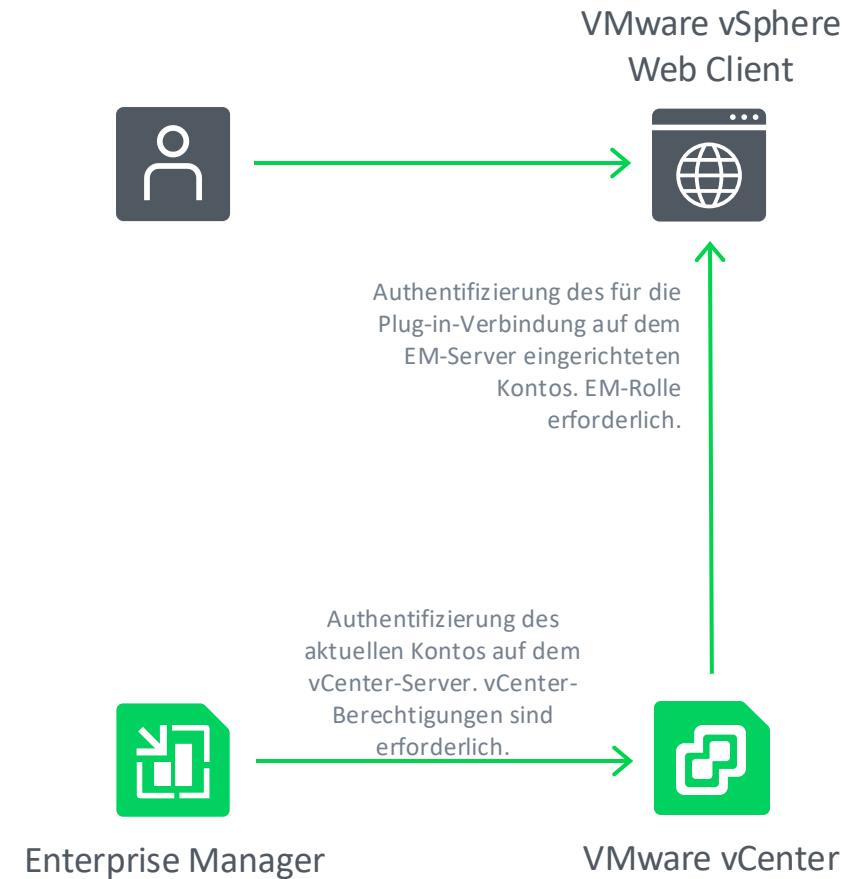
Enterprise Manager + vCenter

Das Veeam Plug-in für **VMware vSphere Client** optimiert die **Backup-Verwaltung für vSphere-Administratoren**. Damit können sie den Status von Veeam Backup & Replication überprüfen, Job-Ergebnisse überwachen und Speicherstatistiken direkt im vSphere Client anzeigen.

Administratoren können **ungeschützte VMs identifizieren**, **Kapazitäten planen** und **Wiederherstellungspunkte** mit VeeamZIP und Quick Backup **erstellen**.

Konfigurationsdetails:

- vSphere Client 7.0.0 oder früher – lokale Installation auf vCenter Server.
- vSphere Client 7.0.1 oder höher – Remote-Installation auf dem Veeam Backup Enterprise Manager-Server.



Kopieren und Verschieben von Backups

Mit Veeam Backup & Replication können Sie alle Backups eines Backup-Jobs in ein anderes Repository verschieben oder bestimmte Workloads und deren Backups in einen anderen Job verschieben.

Anwendungsbeispiele:

Backups in ein anderes Repository verschieben

Backups in einen anderen Job verschieben

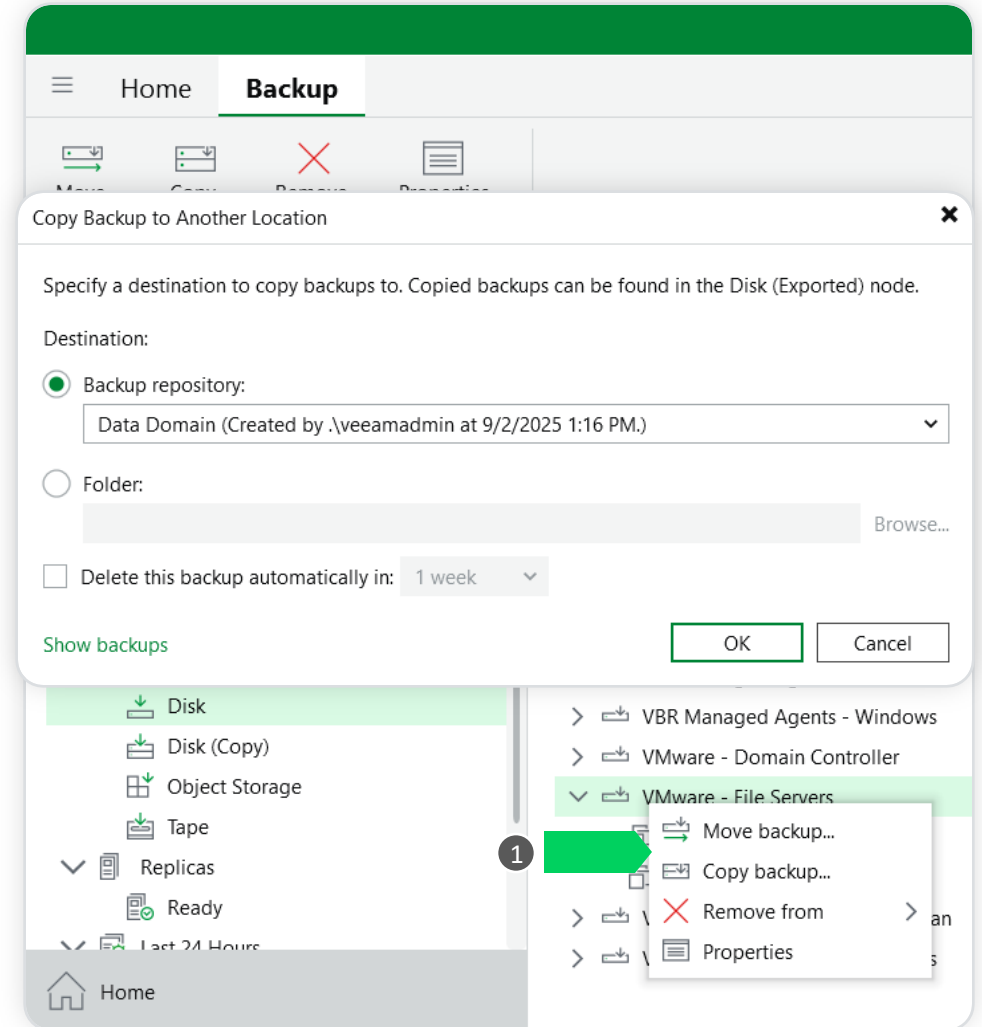
Backups in ein anderes Repository kopieren

ReFS für gehärtetes Repository auf XFS migrieren

NTFS auf ReFS migrieren

Scale-Out-Repository neu ausbalancieren

Scale-Out-Repository-Extent-Evakuierung



Veeam-Extraktionsdienstprogramm

- Unabhängiges Tool zur Wiederherstellung
- GUI oder CLI

Anwendungsfall:

Maschinen wiederherstellen, auch wenn Backups aus Veeam Backup & Replication entfernt wurden oder Veeam Backup & Replication nicht installiert ist.


Extract

Specify the backup file, machines to restore, and the target folder to place restored VM files to. Restoring from incremental backup files requires that all dependent backup files are available in the same location.

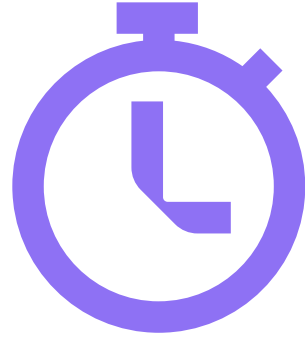
Backup file:
C:\Backup\ubuntusrv02.vm-7252D2023-04-21T170344_4A24.vbk Browse...

Target folder:
C:\VM Data Browse...

Machines:


Name	Size	Host
<input checked="" type="checkbox"/>  ubuntusrv02	16 GiB	vcenter01.tech.local

Select one or more virtual machines, and click Extract to continue. Extract Cancel




Wir sind fast fertig...


Möchten Sie praktische Erfahrungen sammeln?


**Test drive Veeam Software Appliance v13**

Explore the brand new Veeam Software Appliance.

**Test drive GenAI with Veeam Data Platform**

This hands-on lab introduces Veeam AI assistant


**Test drive Veeam cyber Resilience with Palo Alto Networks**


**Veeam Data Cloud for M365: Overview**


Get started with Veeam Data Cloud (VDC) SaaS platform to offload all data protection and recovery challenges when it comes to your Microsoft 365 (M365) workloads. This hands on lab showcases simplicity of VDC when it comes to protection & recovery needs to various M365 workloads such as Exchange online, OneDrive, SharePoint and Teams data. It guides you through how to create and manage simple backup policies, how to rapidly recover and how to leverage Role Based Access Control (RBAC) for granular delegation of responsibilities.

Product: Veeam Data Cloud
Use Cases: Data Recovery
Technical Level: Intermediate

[REQUEST LAB](#)

**Veeam Data Cloud for Microsoft Azure: Overview**


**Test drive Veeam Kasten for Kubernetes**

**Test drive Veeam Kasten & Red Hat Openshift Container Platform**

This hands-on lab covers configuring storage classes and snapshot classes, deploying both containers and virtual machines on RedHat OpenShift Container Platform (OCP), and implementing comprehensive data protection with Veeam Kasten. Learn how to manage storage, deploy diverse workloads, and protect both containerized applications and Virtual Machines on a single platform, enhancing skills in modern, hybrid infrastructure management.

Product: Veeam Kasten
Use Cases: Data Backup, Data Recovery
Technical Level: Advanced

[REQUEST LAB](#)

**Test Drive Veeam One Reporting & Threat Center**

Learn and understand how to effectively leverage Veeam ONE monitoring & Analytics to optimise your security posture. This hands on lab showcases Veeam Threat Center, Configuring Ransomware alerting, creating custom dashboards to assess security readiness to help combat cyber security requirements for your data estate as well as integrating with ServiceNow & SIEM solutions.

Product: Veeam ONE
Use Cases: Reporting, Monitoring and Threat Center
Technical Level: Beginner

[REQUEST LAB](#)



<http://vee.am/RnZrLWq>

Veeam Certified Engineer (VMCE)

- Ausbilder oder auf Abruf
- In 100 Ländern erhältlich
- Theorie und Labore
- Veeam University Pro: <http://vee.am/Gdg4Gwq>

Zusätzliche Ressourcen

- On-Demand-Schulung — <http://vee.am/VeeamUniversity>
- Rechner — <https://www.veeam.com/calculators>
- Help Center — <https://vee.am/5mylXwq>
- Bewährte Verfahren — <https://bp.veeam.com/vbr/>
- KB: Sicherheit — https://vee.am/uF_UZwq
- R&D Foren — <https://forums.veeam.com/>
- Community Ressourcen Hub — <https://community.veeam.com/>

Teilen Sie Ihre Veeam-Erfolgsgeschichte

- Beitrag auf unserer Website und unseren sozialen Kanälen
- Vortragsmöglichkeiten auf der VeeamON
- Präsentieren Sie Ihr Fachwissen innerhalb der Community
- Erhalten Sie KUDOS für Ihre Leistungen.

Interessiert?
Kontaktieren Sie uns unter

advocacy@veeam.com

Matt Elsberry
Lead Network Administrator, SGMC Health



The Veeam logo is displayed in white lowercase letters within a white-outlined rectangular box with rounded corners. The box is positioned in the center of the image, overlapping a large, light green, stylized 'V' shape that serves as a background element. The entire composition is set against a dark green gradient background.

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