

Veeam Availability Suite V11 Veeam Backup Microsoft Office 365 v5

Webinar | 01.04.2021 | Benoit Henriot - Christian Bocquet

Vos interlocuteurs



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Agenda



- Veeam Availability Suite V11
- Veeam Backup for Microsoft Office 365 v5
- Questions et réponses

Veeam Backup & Replication



- **4-in-1** solution
- Combining storage snapshots, backup, replication and Continuous Data Protection under a single platform
- **150+** enhancements
- including powerful backup, cloud, security and automation capabilities

Veeam Backup & Replication v11



Continuous Data Protection



Reliable Ransomware Protection



Amazon S3 Glacier and Azure Archive



Expanded Instant Recovery



Expanded Agent Support



Near-zero RPOs

Continuous Data Protection

Resiliency for critical workloads with near-zero recovery point objectives (RPOs), minimizing data loss and recovering to the latest state or point in time.

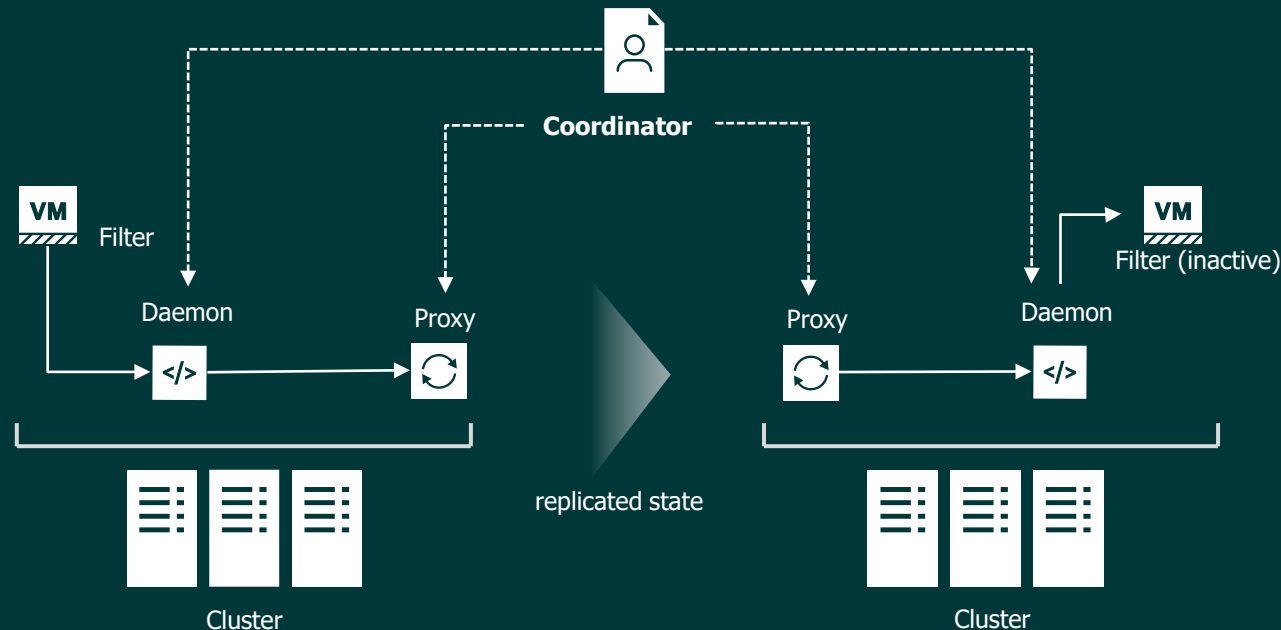
CDP : What is it?



A new way to replicate VMware virtual machines without snapshots



Meet short RPOs as low as 2 seconds



CDP : How does it work?



Uses VMware's vSphere APIs for I/O Filtering (VAIO)



No VMware snapshots – I/O Filter certified by VMware



No distance limit and reduced bandwidth requirements



No workload or hardware dependency – Replicate any to any



Failover to use replicas like classic Veeam replication

CDP : When To Use?



Critical workloads needing lowest RTO and RPO

The "top 5%"

Instead of Veeam replication

Instead of asynchronous storage replication



Support for CDP is included in Veeam DR Orchestrator v4

CDP - Requirements?



Veeam Backup Server (job control)

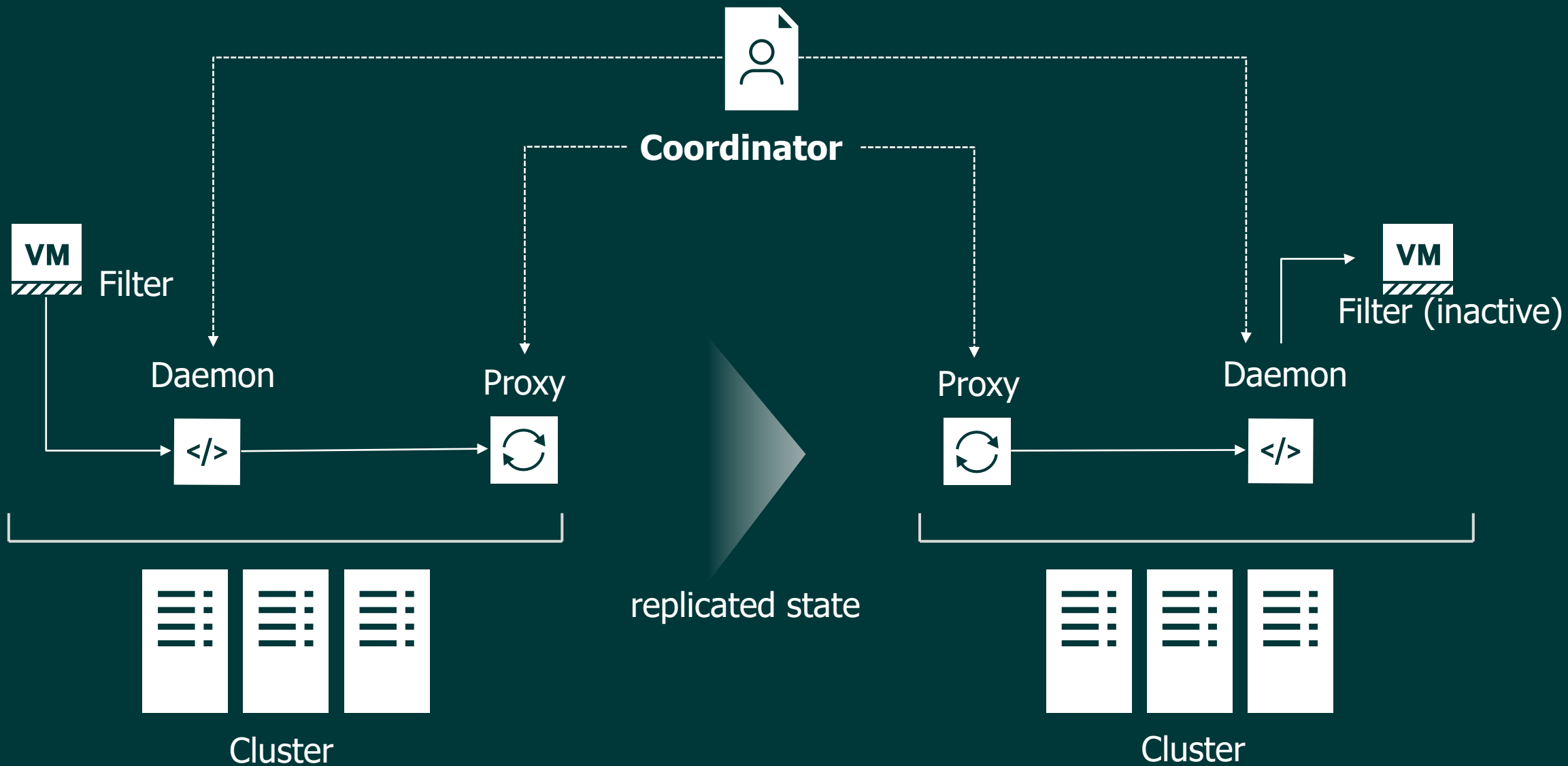


VMware vCenter Server and two clusters (6.5, 6.7 or 7.0)



Veeam CDP Proxy on source and target clusters (data movement)

Technical Overview



CDP - Feature comparison with replica



Feature	Replica	CDP
Failover & failback	+	+
Planned failover	+	-
Failover plan	+	+
SureReplica (DataLabs)	+	-
File-level recovery	+	-
Network throttling	+	+
Preferred networks	+	+
Automation (PS, REST)	+	+
Cloud Connect	+	-



Native immutable backups

Hardened Linux repository

Keep your data safe with immutable and malware-safe storage repositories for your backups and prevent malicious encryption and deletion.

Hardened Linux repository overview



Why?

Malware-safe repositories

If set up properly: insider protection

What

Deny deletion of backups

How

Use "immutable flag" in Linux

Single-use credentials

Removing backup

Name: Backup Deletion Job Status: Warning
Action type: Backup Deletion Start time: 29.10.2020 11:32:48
Initiated by: LAB\administrator End time: 29.10.2020 11:33:18

Log

Message	Duration
✓ Starting backup deletion job	
✓ [TBD] Preparing entities for deletion	
✓ [TBD] Building deletion tasks	
✓ [TBD] Processed 1 of 1 entities (100% done)	0:00:26
⚠ [BJ-hard1-7d-per-vm] Backup deleted with warning	0:00:23
⚠ [TBD] Failed to delete immutable storages. Count: 4.	
⚠ [TBD] Backup can be deleted after 09.11.2020 11:22	
✓ hard1-per-vm-chains-7days: 0 deleted, 0 skipped, 1 warned, 0 failed	
⚠ Job finished with warning at 29.10.2020 11:33:18	

```
172.21.239.13 - KITTY
root@multistorage:/mnt/nfs/backups/BJ-immutable# lsattr -a
----- ./.
----- ./..
-i----- ./HK-Nano.vm-5636D2020-06-18T142332_7FC7.vbk
-i----- ./HK-Nano.vm-5636D2020-06-24T145659_5C3E.vib
-i----- ./veeam.0.lock
----- ./BJ-immutable.vbm
root@multistorage:/mnt/nfs/backups/BJ-immutable#
```

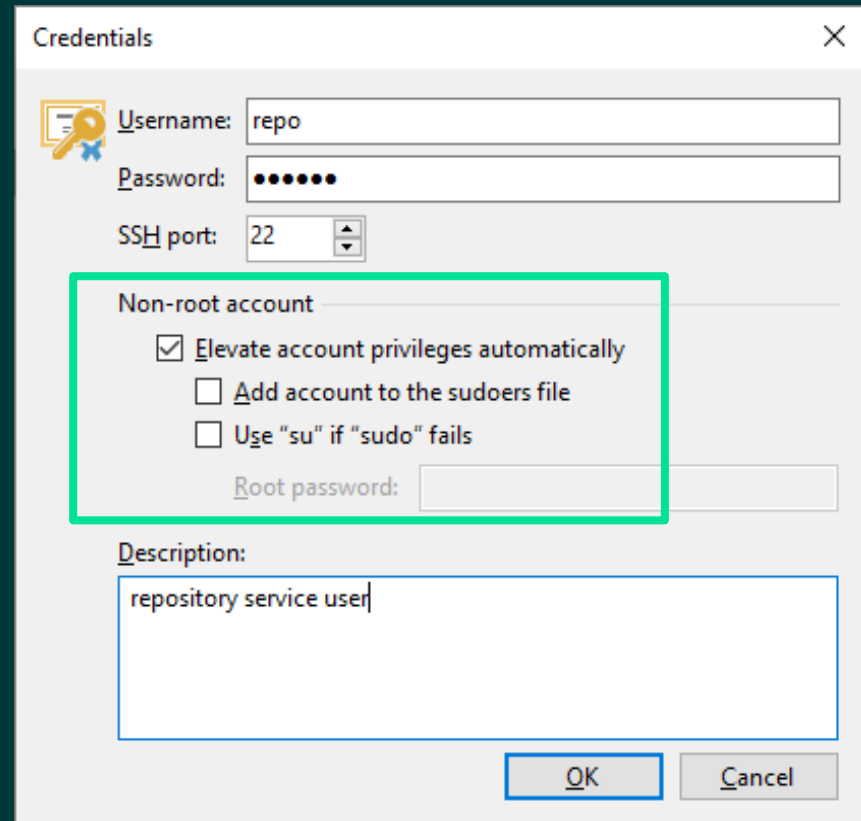
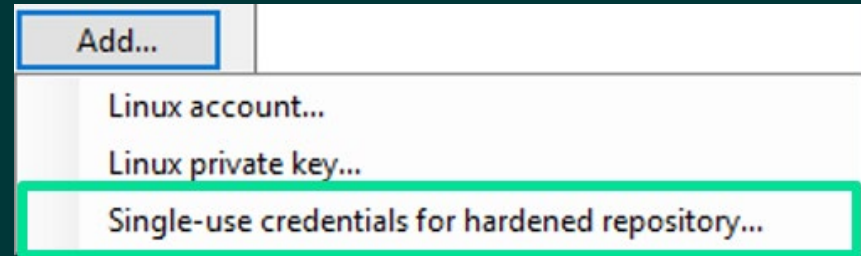
How to secure ?

1. Create low-privileged Linux user that can elevate to root

2. Add Linux standalone repository with low-privileged user account, single-use credentials.

Root password not stored!

3. Once setup, remove "Elevate to root" permissions



How to lock ?



4. Make repository immutable for a specific amount of days

New Backup Repository

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

Name

Server

Repository

Mount Server

Review

Apply

Location

Path to folder: /mnt/xfs Browse...

Capacity: 50 GB

Free space: 49,6 GB Populate

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

Make recent backups immutable for: 7 days
Protects backups from modification or deletion by ransomware or hackers. GFS full backups are made immutable for the entire duration of their retention policy.

5. Check Linux flag "i"

```
172.21.239.13 - KITTY
root@multistorage: /mnt/nfs/backups/BJ-immutable# lsattr -a
----- ./.
----- ./..
-i----- ./HK-Nano.vm-5636D2020-06-18T142332_7FC7.vbk
-i----- ./HK-Nano.vm-5636D2020-06-24T145659_5C3E.vib
-i----- ./veeam.0.lock
----- ./BJ-immutable.vbm
root@multistorage: /mnt/nfs/backups/BJ-immutable#
```


And done !

Removing backup

Name: **Backup Deletion Job** Status: **Warning**

Action type: Backup Deletion Start time: 01.02.2021 15:31:25

Initiated by: LAB\administrator End time: 01.02.2021 15:31:50

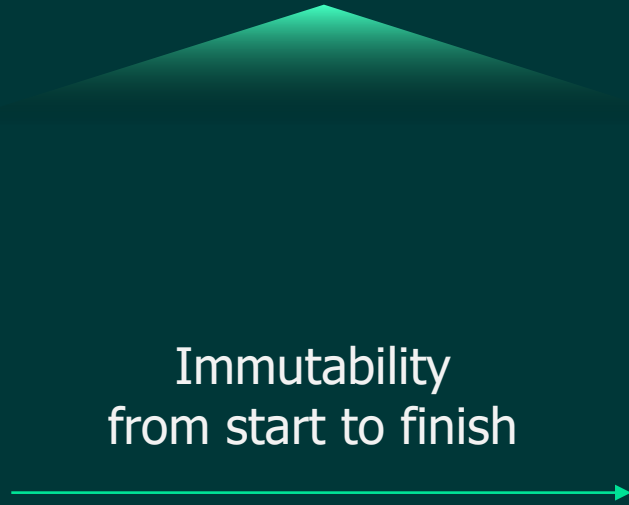
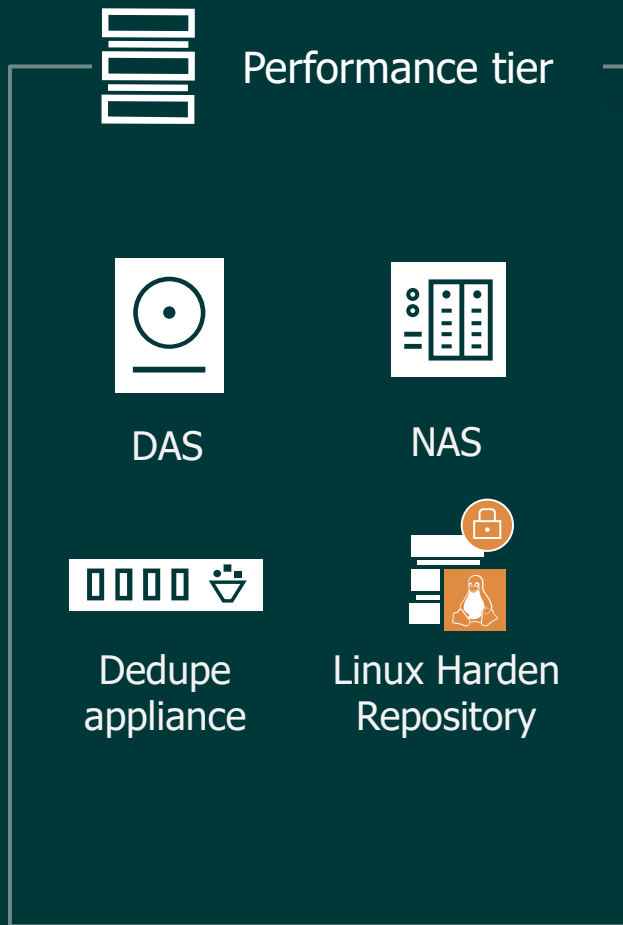
Log

Message	Duration
✓ Starting backup deletion job	
✓ Preparing objects for deletion	
✓ Building tasks list	
✓ Processing backup 1 out of 1 (100% done)	0:00:20
✓ [HK-Nano] Backup has been removed successfully	0:00:17
⚠ Unable to delete 1 immutable backups for VM: HK-Nano.	
⚠ Backups can be deleted after 05.02.2021 15:27	
✓ Hard-810: 0 deleted, 0 skipped, 1 warned, 0 failed	
⚠ Job finished with warning at 01.02.2021 15:31:50	

Immutability for all stages of backup

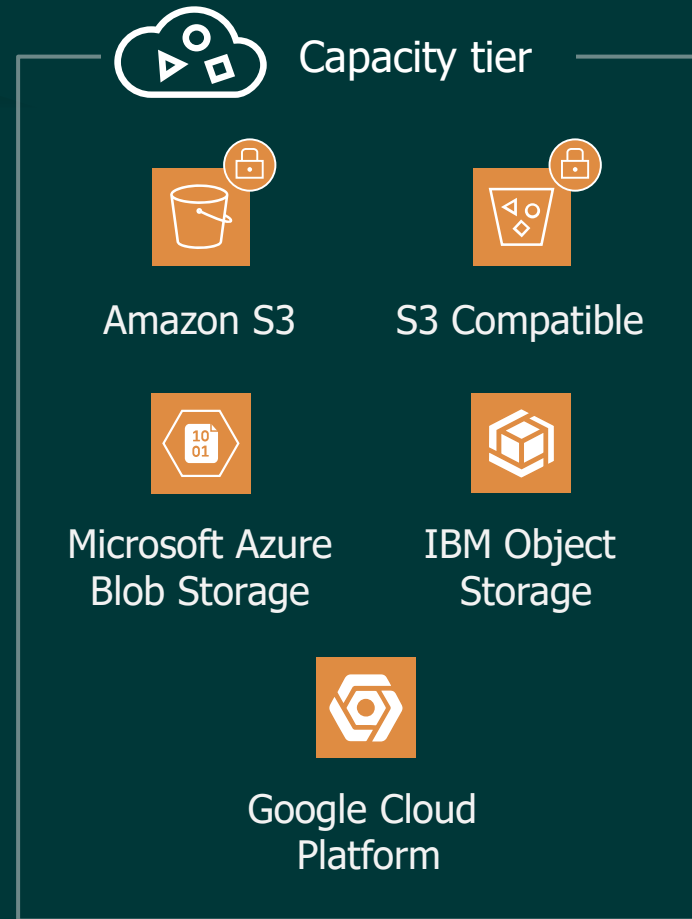


Scale-out Backup Repository



Immutability from start to finish

- Policy-based
- Transparent
- Space efficient
- Self-sufficient
- No extra costs



Improved Linux Backup Proxy Modes



Why?

- Hot-add only in V10
- Popularity of Linux Backup proxies

What we added:

- Network mode (NBD)
- Direct SAN (NFS, iSCSI and FC)
- Backup from storage snapshot (iSCSI, FC)



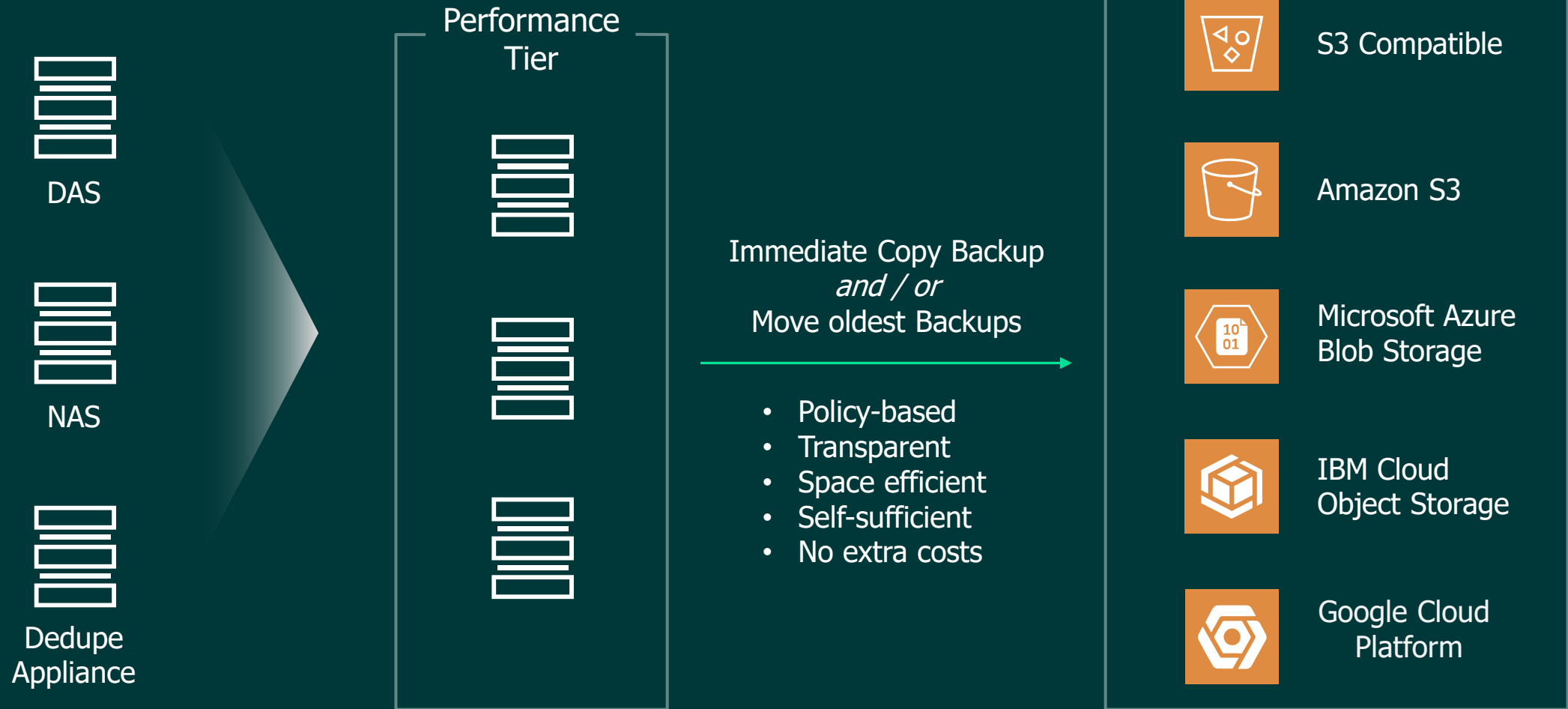


Object Storage

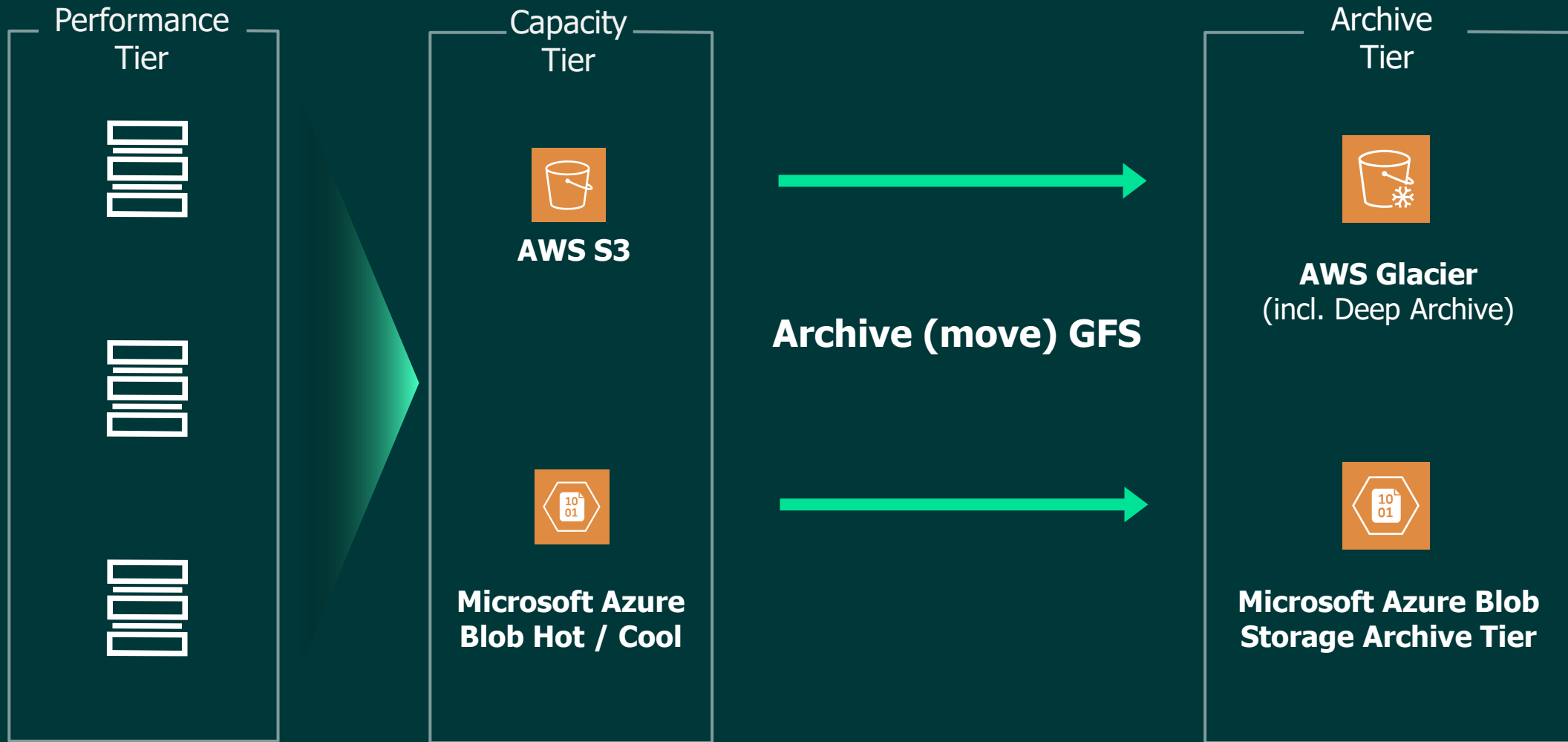
Amazon S3 Glacier and Azure Archive

Up to 20x cost savings using Amazon S3 Glacier or Azure Archive cold storage to achieve secure lifecycle management of your backups.

Veeam Capacity Tier



Archive Tier: Write Once /(Almost) Never Read



Add Archive Tier To SOBR

- New “Archive Tier”
- Move old GFS restore points
- Avoid moving data to archive if retention is too low (higher costs)

Edit Scale-out Backup Repository

Archive Tier
Specify object storage to archive your backup files to. This reduces your long-term retention costs, while increases restore costs.

Name

Performance Tier

Placement Policy

Capacity Tier

Archive Tier

Summary

Archive GFS backups to object storage:

Amazon Glacier Add...

Archive backup files older than 90 days (your archive window) Advanced...

Storage Settings

Store archived backups as standalone fulls
To reduce storage costs, we store each backup as a delta from the previous one. For the long-term archive reliability considerations, you may instead choose to store each backup as a standalone full, without any dependencies on previous backups.

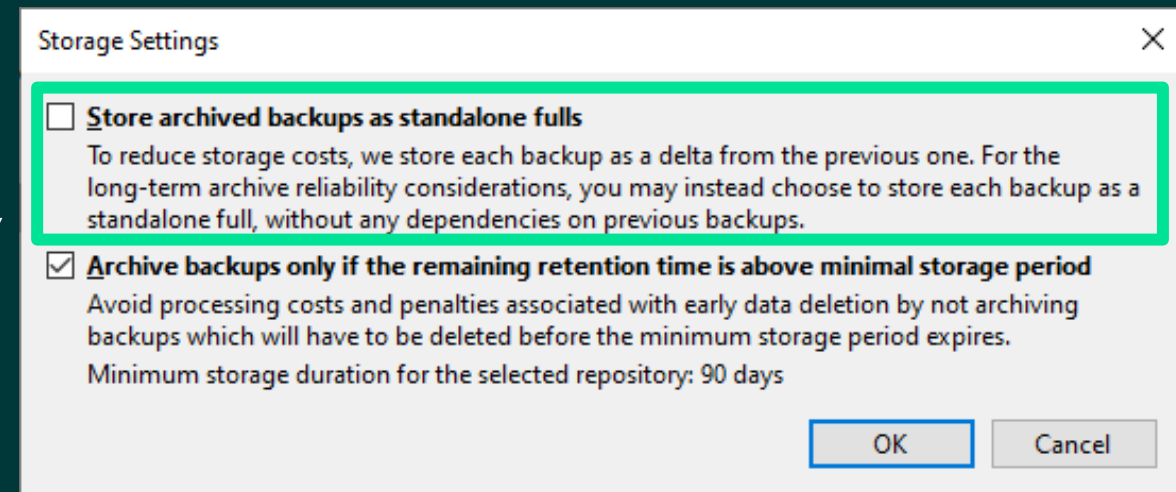
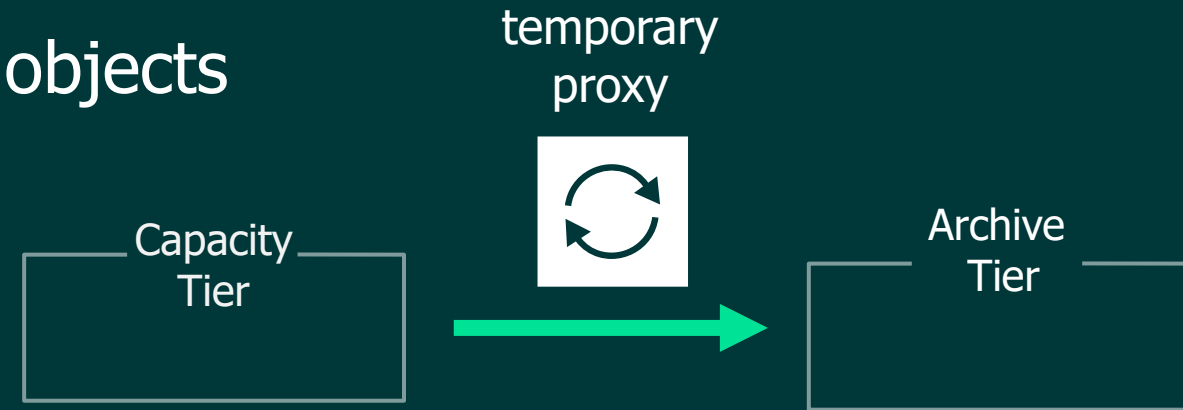
Archive backups only if the remaining retention time is above minimal storage period
Avoid processing costs and penalties associated with early data deletion by not archiving backups which will have to be deleted before the minimum storage period expires.
Minimum storage duration for the selected repository: 90 days

OK Cancel

< Previous Apply Finish Cancel

Move Data To Archive Tier

- Temporary proxy converts to larger objects
- One temporary proxy per backup chain (up to 64 per default)
- Data removed from Capacity Tier
- Independent Fulls – “Blocks cloned”





Ultra-low RTOs

Instant Recovery

Instant Recovery of Microsoft SQL and Oracle Databases

Instant Recovery of ANY backup to Microsoft Hyper-V

Instant Publish of NAS backup as a file share

SQL / Oracle Instant Recovery



Why?

Be online with your database again in seconds

What

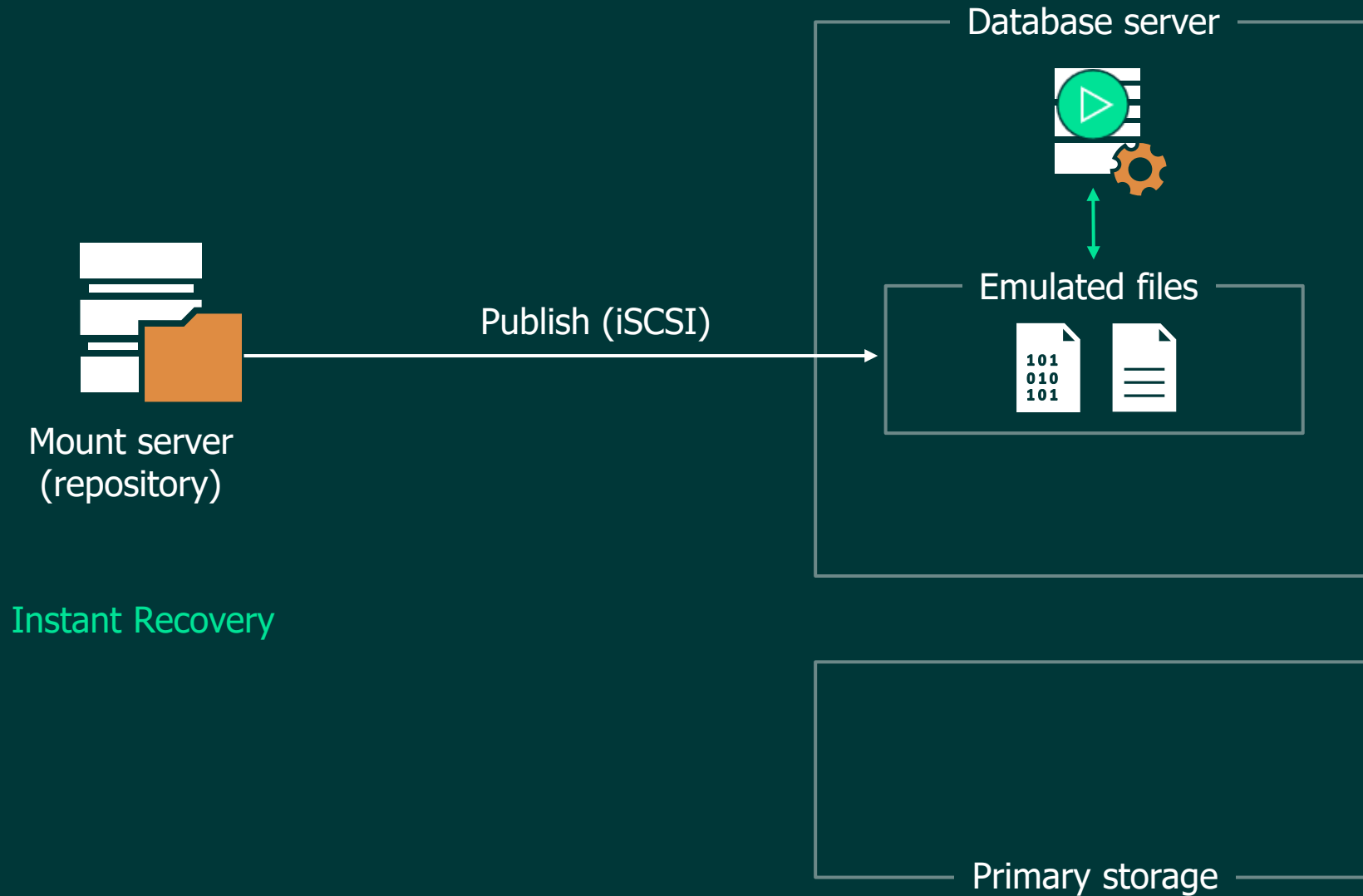
Physical and virtual servers
Instant Recovery for production databases

Keep in mind

Small downtime on switchover

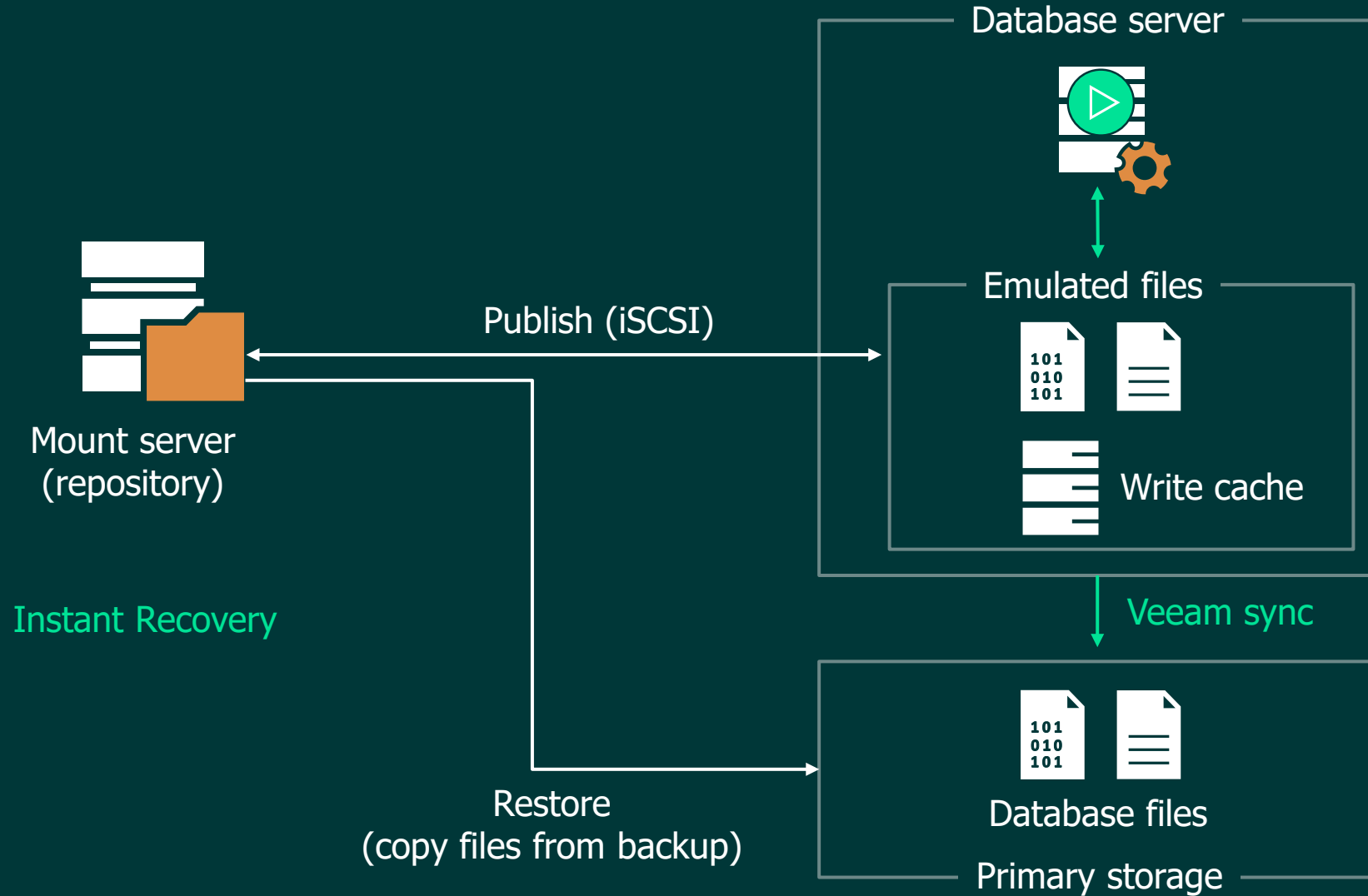


How it works 1: Publish database

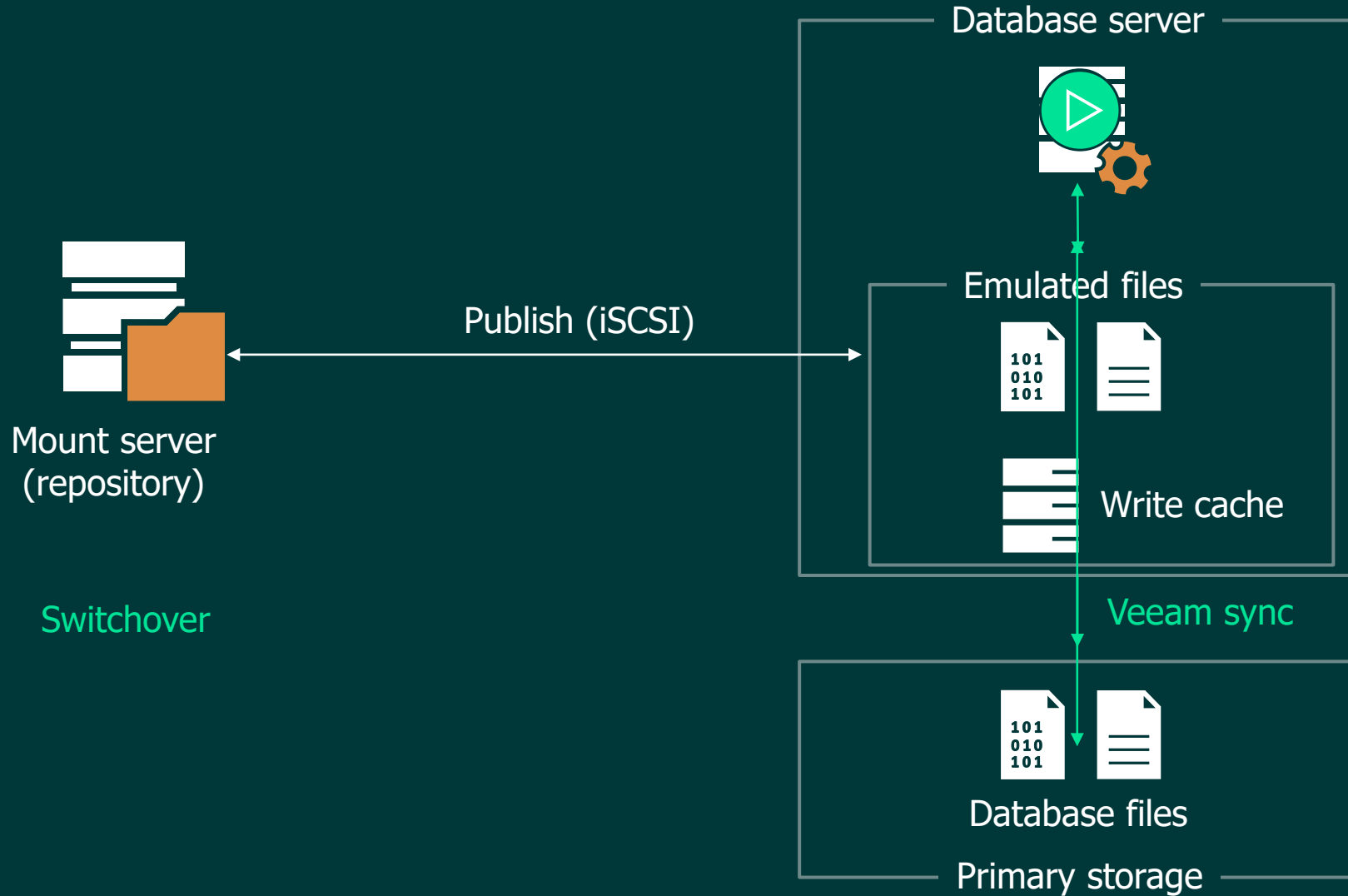


Instant Recovery

How it works 2: Cache, restore & sync



How it works 3: Database switch

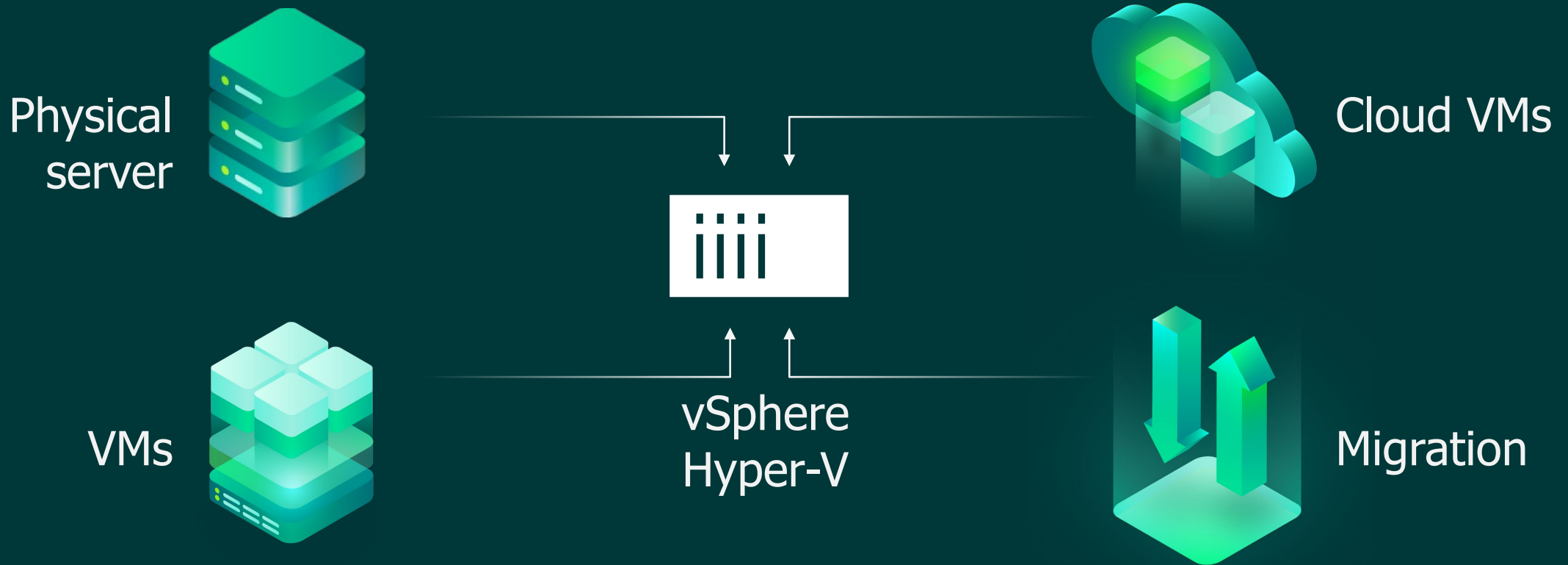


Instant VM Recovery For Hyper-V









The Instant VM Recovery Solution



Enhanced! Instant VM Recovery®



Instantly recover from ANY Veeam backup to VMware vSphere, and Hyper-V — even simultaneously

From / To		vSphere	Hyper-V	AHV	Azure	AWS
vSphere		✓	✓ NEW	✓	✓	✓
Hyper-V		✓	✓	✓	✓	✓
AHV		✓	✓ NEW	✓	✓	✓
Windows Agent		✓	✓	✓	✓	✓
Linux Agent		✓	✓ NEW	✓	✓	✓
Azure VMs		✓	✓ (1)		✓	✓
AWS EC2		✓	✓ (1)		✓	✓
Other Clouds (agent based)		✓	✓ NEW	⊙	✓	✓

✓ Directly from UI

⊙ Bare Metal Recovery

(1) From Backup Copy

Instant File Share Recovery For SMB Protocol

Instant file share recovery



Why?


Grant users the ability to access files fast after disaster

What

Publish SMB shares instantly

Restore from File Backup

Select the type of restore you want to perform.

 **Instant file share recovery**
Publishes a point-in-time file share state as a read-only SMB file share to enable users to instantly access all protected files.

Instant File Share Recovery

File Shares
Select one or more file shares to be published.


File Shares

Mount Servers

Reason

Summary

File shares to publish:

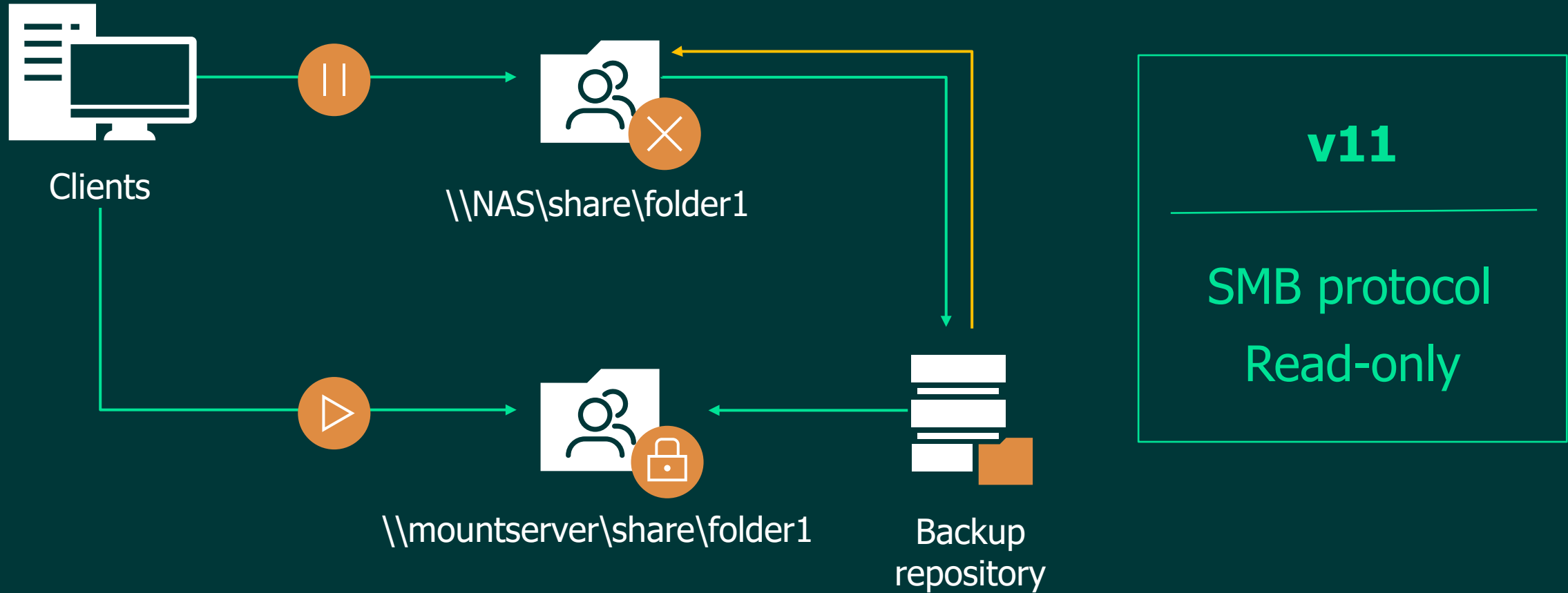
Name	Source	Restore point
 SVM_CIFS:\share1	cluster1	less than a day ago (17:10 Dienstag 02.0...

Add...

Point...

Remove

Instant file share publish for SMB





Server and endpoint management

Expanded support for Veeam Agents

Backup From Storage Snapshots, and more

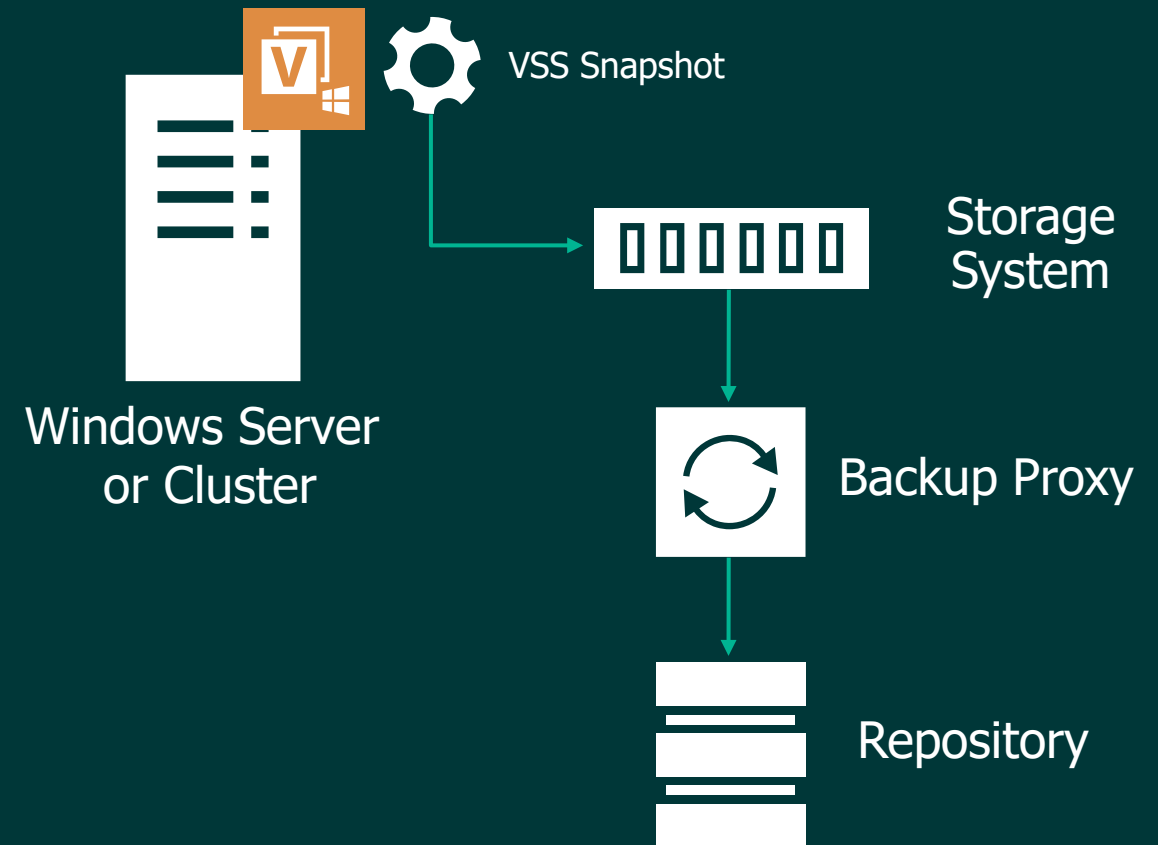
Backup from Storage Snapshots

Why?

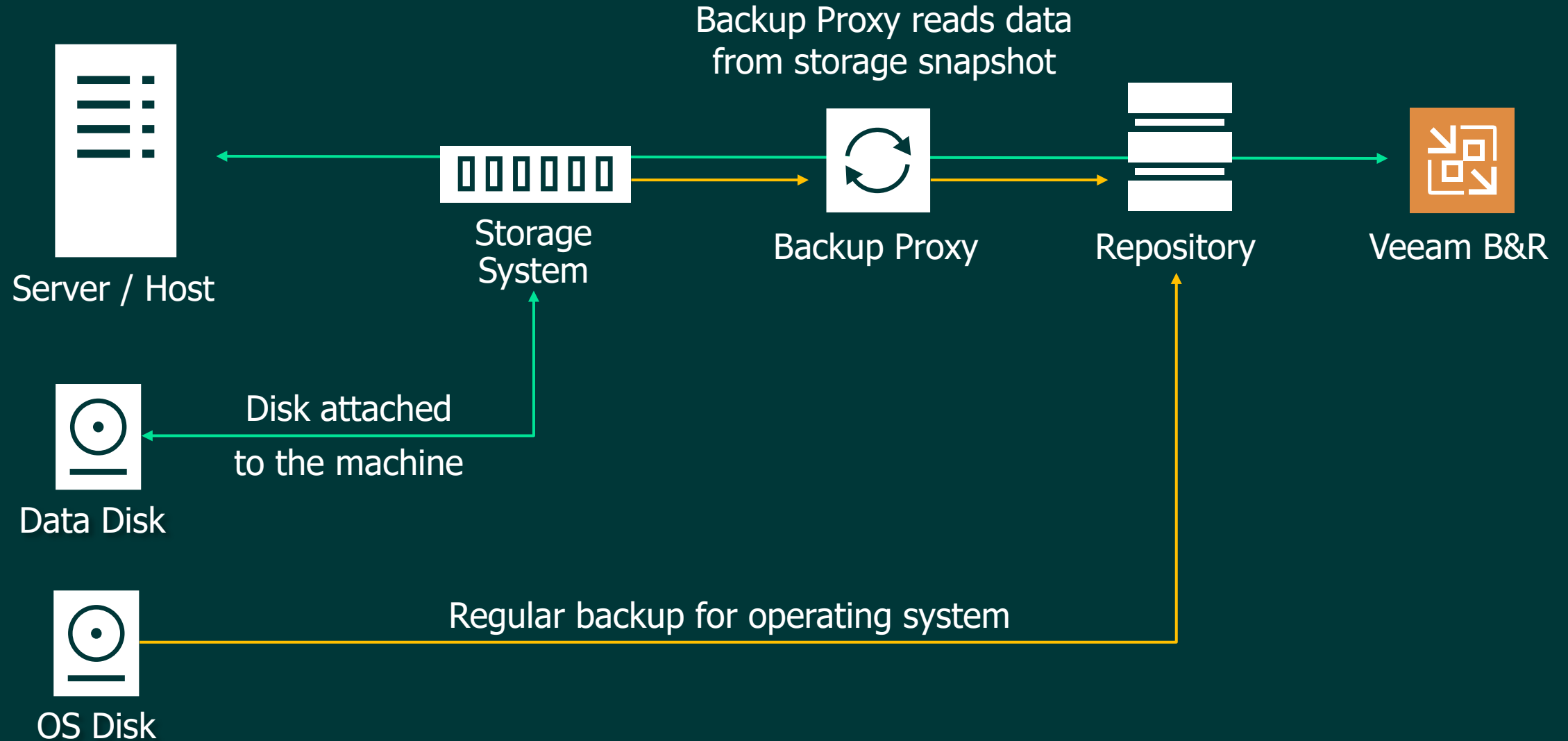
- Offload processing from source machine
- Isolate network traffic

What?

- Same systems supported like for VMware integration



How It Works



And more ...

Veeam Backup *for Microsoft Azure* v2



VBR
Integration



Tiered
GFS



Application
Consistency

Veeam Backup *for Microsoft Office 365* v5



What's new?

Microsoft Teams support

NEW Veeam Backup *for Microsoft Office 365 v5* has added **purpose-built backup and recovery for Microsoft Teams**, making it easier than ever for users to quickly find and restore Teams data, including entire teams, specific channels and settings.

Version 5 of Veeam Backup *for Microsoft Office 365* now includes:

Purpose-built Teams backup:
full control and protection over Teams data

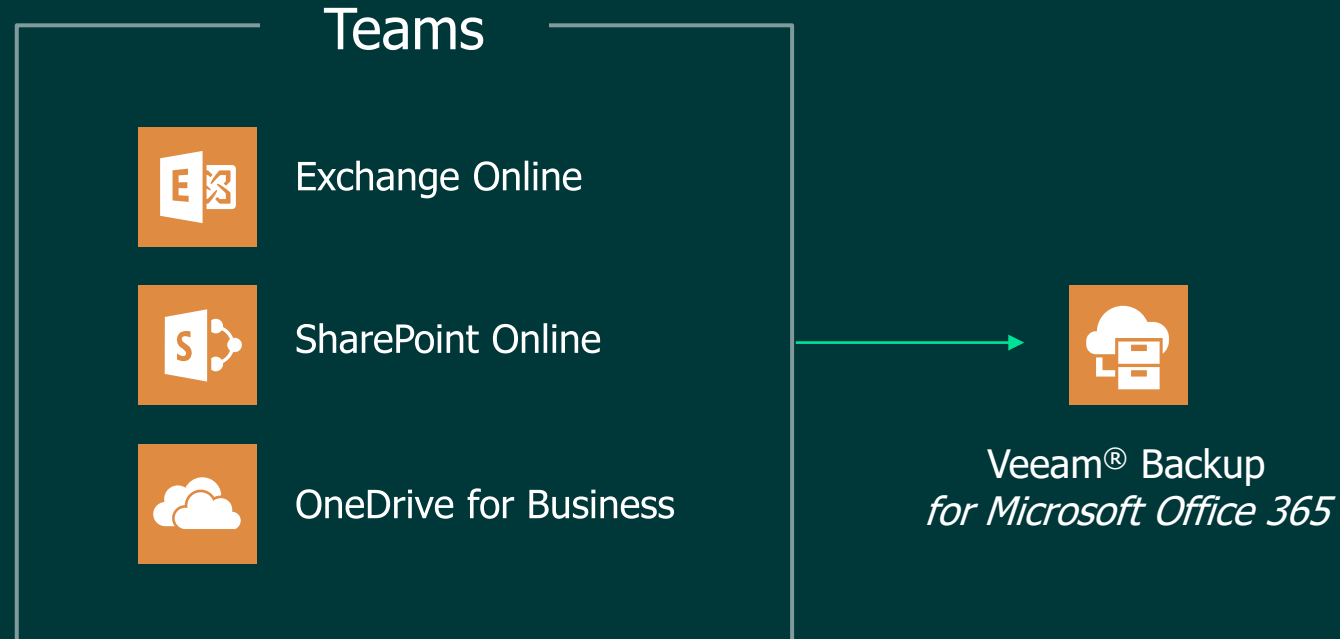
Faster and easier recovery:
industry-leading restore options built for Teams

Unmatched eDiscovery:
enables granular search and find across Teams components

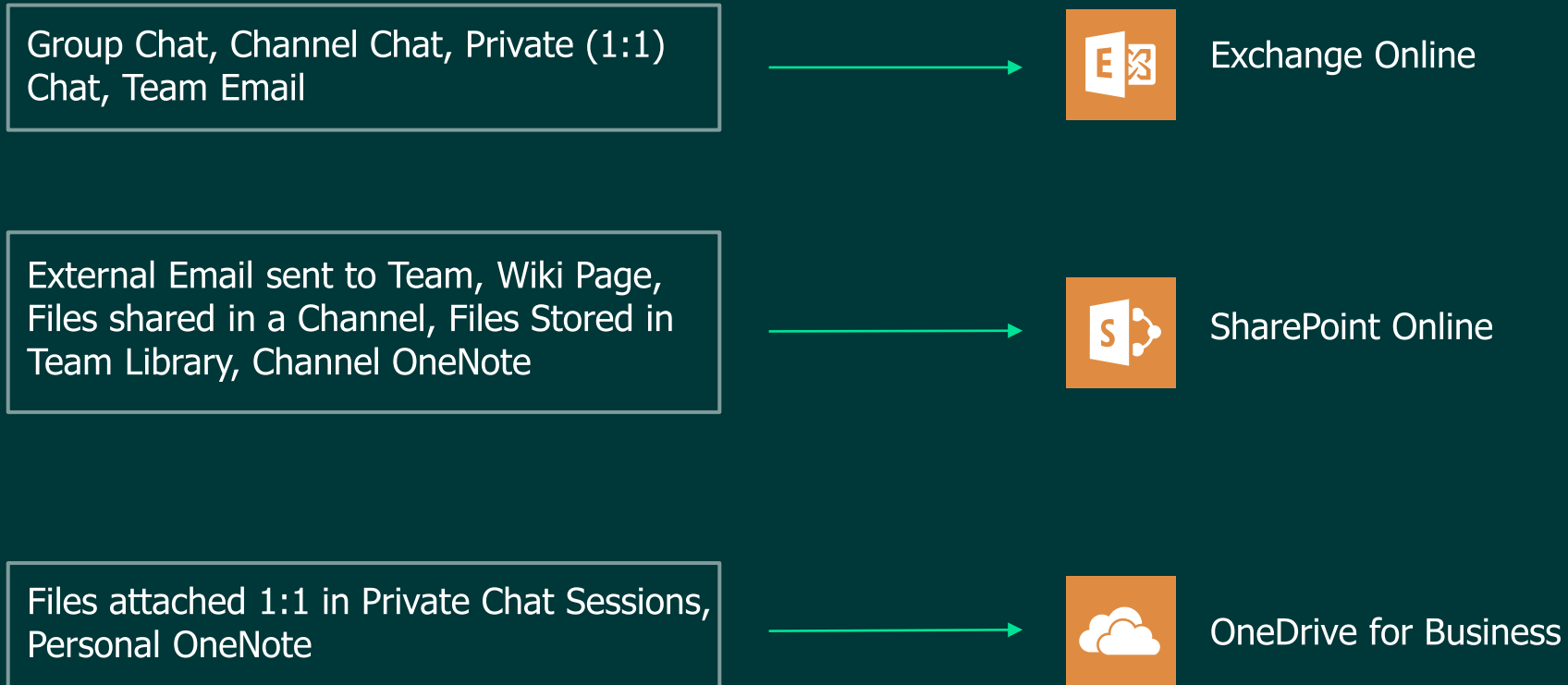


Method of protection of Teams data

Legacy method of protecting Teams is conducted via the sources:

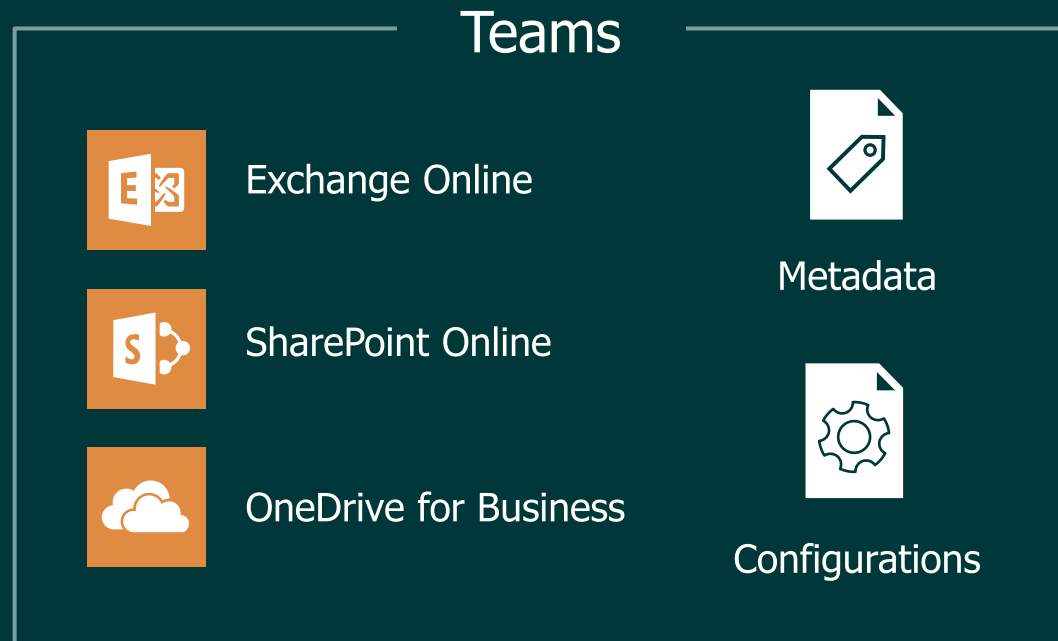


Method of protection of Teams data



What you can do with Veeam

In Veeam Backup *for Microsoft Office 365* v5, you can protect your metadata/configurations in addition to your already protected data and restore it back efficiently.



In v5, you can:

- ✓ Backup Teams configurations (i.e., settings, members, team structure)
- ✓ Restore with granularity, including teams, channels and tabs
- ✓ Allow for restore efficiency (i.e., automation)

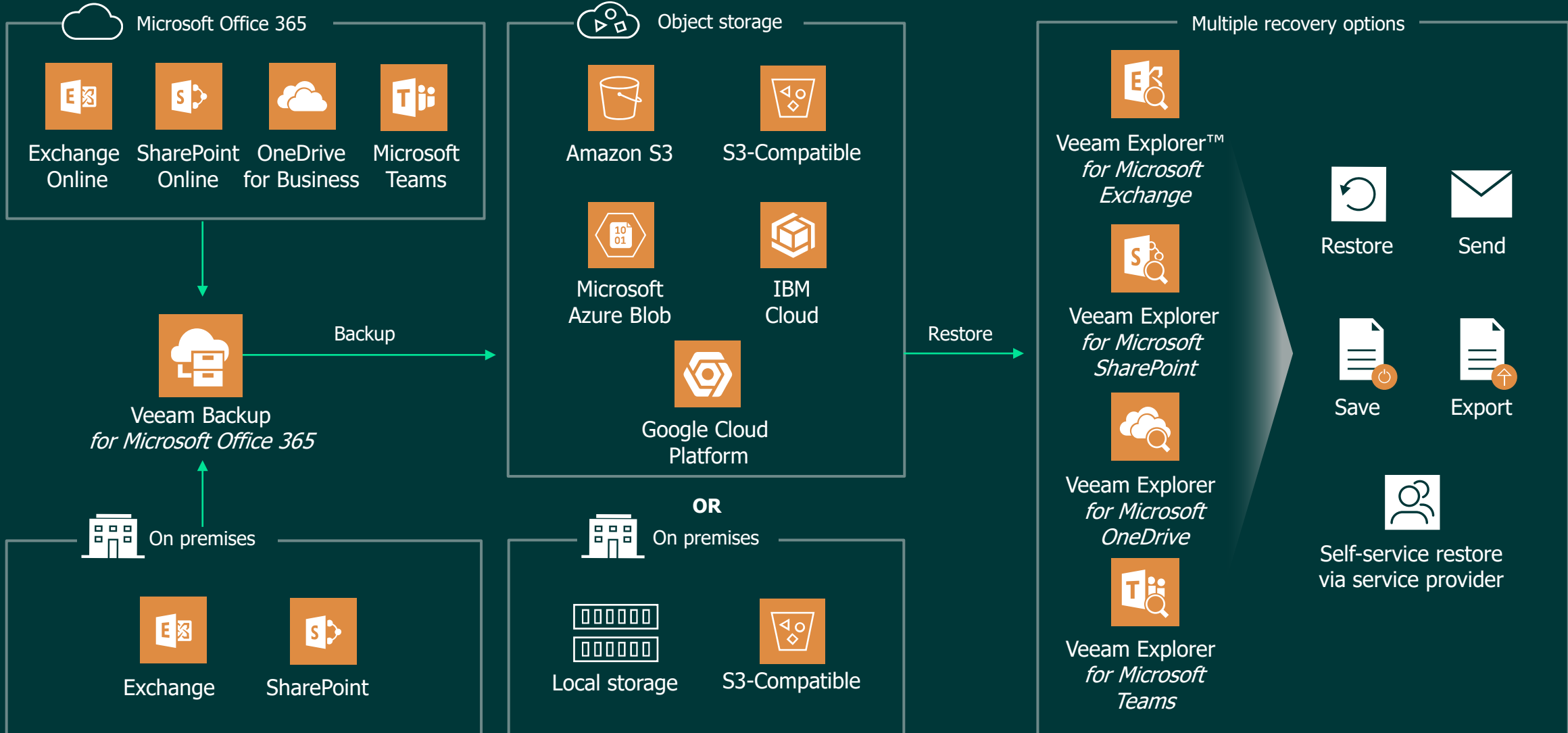
NEW Veeam Backup for Microsoft Office 365 v5



Protect

Store

Recover



Pour conclure

File-level recovery (Windows)	V2V conversion to vSphere/Hyper-V	Full VM restore	VM files restore	Multi-VM Instant Recovery	VM hard disk restore
Failover to a replica VM	File-level recovery (Multi-OS)	Quick Rollback	U-AIR restore	Restore from a replica VM	Replicate VM from a backup
General options		Instant VM disk recovery	Staged Restore	Secure Restore	Data Integration API

Veeam Explorers

Active Directory		Exchange		Teams	
Export container/object	Restore system objects/GPO	Save data	Send data	Save file/as ZIP	Send post/file
Restore a deleted container/object	Restore a changed container/object	Restore folder/item/mailbox	Export to PST file	Restore team/channel/tab/post/file	Export post
SharePoint		OneDrive		Oracle	
Save library/document	Send library/document	Save folder/document	Send document	Restore the latest state	Restore to a specific point in time
Restore library/list/document/site	Export library	Restore folder/document	Copy data to same/different user	Restore to a specific transaction	Restore from Oracle RMAN backup
SQL					
Restore the latest point	Restore to specific time/transaction	Restore/export DB schema	Export latest or point-in-time state	Publish latest or point-in-time state	Export as MDF/BAK

Agents

Agent Backup to a Hyper-V VM	Guest OS files/folders/volumes	Agent Linux	Agent Windows
Agent Mac	Export a point as a virtual disk	P2C conversion	Application-level restore

Network Shares

Restore entire file share	Rollback to a point in time
Restore files and folders	Restore permissions and security attributes
Instant share publishing	

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veeam

Recovery scenarios with Veeam Backup & Replication v11

Backup Enterprise Manager

1-click VM/file restore	Virtual disk restore	Launch failover plan	Restore of vCD infrastructure
Exchange item restore	SQL/Oracle DB restore	Self-service Restore Portal	Restore via RESTful API

vCloud Director

Instant VM Recovery into vApp/vSphere	Full restore into vApp/vSphere	vCloud vApp restore	Linked Clone VMs to vCD
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Tape

Full VM to infrastructure	Files from tape	Backup from tape	Tenant restore
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</> Extra

Restore via PowerShell	Extract utility	File restore audit	Restore under user context
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Cloud

Restore from "deleted" VCC backups	Restore from object storage	Restore from the VCC Provider	C2V conversion via "external" repo
		Partial/full site failover	Restore to Azure VM/AWS EC2

Explorer for Storage Snapshots

Guest files (Windows/Multi-OS)	Instant VM/disk Recovery	SQL/Oracle DB restore	Exchange/SP/AD item restore
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Restore Exchange item to Exchange Online mailbox or calendar

Restore Exchange item to on-premises Exchange mailbox or calendar

Email Exchange item as an attachment

Save Exchange item as a .MSG

Export folder, item or mailbox as a .PST

Service Provider restore of an Exchange item for a tenant



Entire folder/mailbox compare and restore of missing/changed items

Exchange Online and Exchange on-premises



OneDrive for Business

Restore users, folders or files (including OneNote notes) to the OneDrive for Business

Email as an attachment

Save files or folders

Save multiple files or folders as a ZIP

Restore any file to a prior version

Restore and overwrite users, folders or files

Restore but keep original users, folders or files

Restore with extended attributes and custom access controls

Restore without extended attributes and custom access controls

Service Provider restore of a OneDrive file, folder, or user for a tenant

40 Recovery options in Veeam Backup for Microsoft Office 365



Restore site, library, document to SharePoint Online

Restore site, library, document to-premises SharePoint

Email SharePoint object as an attachment

Save SharePoint object as a file

Save multiple SharePoint objects as a ZIP

Restore an object to a prior version



Service Provider restore of a SharePoint object for a tenant

SharePoint Online and SharePoint on-premises



Microsoft Teams

Service Provider restore of Teams items for their tenant

Restore missing/changed Team membership

Restore posts back to the original Team

Restore any file to its prior version

Restore file to original location

Export or restore posts within the specified time period

Save multiple or individual files

Save or send posts as MSG files

Restore a Team with its membership and settings

Restore a tab to original location

Restore changed or missing items and files

Restore channel to original location

Export or save selected posts

Export post as HTML

Save multiple files as ZIP

Send file as attachment

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- VMWARE
- ...

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