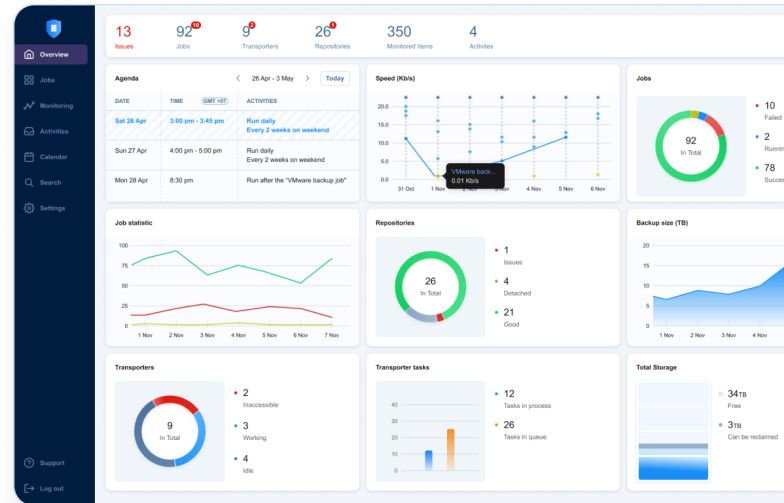


Real-Time Replication for VMware

With the continuous threat of cyberattacks, natural disasters and technical failures, ensuring uninterrupted access to critical data is more important than ever.

NAKIVO's Real-Time Replication ensures critical VMware VMs remain continuously protected and instantly recoverable. Every change is captured and synced in real time, enabling 1-second RPOs and seamless failover—whether from a cyberattack, outage or disaster.



ENSURE AVAILABILITY

and near-zero downtime with continuous replication and automated failover.

UP TO 2X FASTER REPLICATION

via I/O filter technology, replicating only changed data while skipping unused and deleted blocks.

TIGHT RTOs AND RPOs

as low as 1 second to keep critical VMware workloads available.

AUTOMATED, TESTED FAILOVER

to real-time replicas within the Site Recovery workflow—in a single click.

ALWAYS IN SYNC

By replicating every change the moment it's made, so replicas stay production-ready.

REAL-TIME VMWARE VM REPLICATION

Ensure continuous availability and minimize the risk of data loss and downtime for critical VMware vSphere VMs during and after a disaster.

Instantaneous replication: Achieve near-zero Recovery Point Objectives (RPO) by replicating VMware VMs in real time, including application data and configuration files.

Asynchronous replication: Gradually transfer data changes to the target VM with pre-configured RPO, ensuring data consistency and meeting recovery objectives.

Incremental replicas: Utilize I/O filter technology to create incremental VMware VM replicas, sending only the changed data since the initial replication job, cutting replication windows and reducing network load.

Continuous updates: Keep VM replicas up to date in real time, providing update rates as low as 1 second with minimal data loss.

Flexible storage options: Maintain replicas either onsite for immediate access or offsite for large-scale recovery.

Flexible RPO management: Customize your recovery point objective (RPO) settings to align with your specific recovery and compliance requirements, from 1 second to 1 hour.

Resource changes replication: Automatically replicate changes of source VM resources, such as disks, CPUs, or memory, to ensure identical data and hardware configurations.

AES-256 encryption: Secure traffic over untrusted or public WAN connections with end-to-end AES-256 encryption.

Datastore support: Replicate data efficiently across a range of supported datastores, including VMFS, vSAN, WWOL, and NFS, for compatibility in diverse environments.

Network resilience: Maintain data integrity during connection interruptions by caching and storing replication data locally until the connection is restored.

Effective resource utilization: Exclude unused blocks and blocks occupied by deleted files to reduce storage space and processing time.

Customizable journal file size: Set an optimal journal file size to avoid excessive storage use and cover all important changes.

BENEFITS

2X FASTER
with I/O Filter technology.

49% LOWER TCO
than competitors.

4.8 RATING
on top IT communities.

≥ 1 SECOND
recovery point objective.

≤ 5 MINUTES
recovery time objective.

GARTNER® PEER INSIGHTS

Named in the Honorable Mention Section in the 2024 Gartner® Magic Quadrant™ Enterprise Backup and Recovery Software Solutions again*

4.8 out of 5

★★★★★

Overall rating

97%*

Willingness to recommend

FAST RTOs AND RPOs

Uninterrupted availability with instant recovery capabilities to minimize downtime and meet the specific RPO and RTO requirements of your organization.

Automated failover orchestration: Automatically fail over to real-time replicas directly within the Site Recovery workflow during a failure or incident, eliminating manual steps and reducing risk.

Seamless failover: Failover to real-time replicas almost instantly during a failure or incident for the shortest RTOs and minimal data loss during failover scenarios.

Test failover workflow: Verify recovery plans with non-disruptive test failover to ensure systems can be recovered as expected in real-world scenarios.

Near-zero data loss (RPO): Achieve near-zero Recovery Point Objectives (RPOs) by maintaining continuously updated replicas, ensuring recovery with minimal to no data loss and disruption.

Granular recovery points: Choose a replica with sub-minute increments as low as 1 second to restore workloads to just before the disruption.

Quick recovery times (RTO): Restore operations rapidly with fully synced and ready replicas, in just a few minutes, ensuring minimal disruption to critical business processes.

I/O FILTER AND JOURNAL SERVICE

Real-Time Replication for VMware relies on a purpose-built architecture that combines the I/O Filter and Journal Service to capture and transfer VM disk changes the moment they occur.

Automated setup: Save time and eliminate manual configuration with automatic installation of the I/O Filter on the source host and the Journal Service on the target host.

Continuous data transfer: The I/O Filter monitors disk changes on the source VM and instantly transfers them to the Journal Service on the destination host to maintain an up-to-date replica.

Real-time synchronization: Replicas remain continuously synchronized with source VMs, maintaining an RPO as low as 1 second.

Granular recovery points: The Journal Service records every disk write and update, allowing granular recovery to any exact moment before a disruption.

TOP RATED ON BIGGEST REVIEW PLATFORMS



System Requirements

Supported VMware versions for Real-Time Replication

- VMware vSphere 7.0 - 8.0 - 8.0U2 - 8.0U3a

Full solution deployment requirements

- **Server:** 2 CPU cores, 4 GB RAM
- **NAS:** Refer to [System Requirements](#)

PRICING FOR NAKIVO's Real-Time Replication

Two license types to fit any budget

- **Perpetual:** Licensed per CPU socket.
- **Subscription:** Licensed per VMware VM.

Refer to [NAKIVO pricing](#) for more information.

Deployment Options

Virtual Appliance

- Pre-configured VMware v5.5–v9
- Pre-configured Nutanix AOS v6.5-7.0.1.5

NAS

- QNAP QTS v4.3–v5.2.3
- QNAP QuTS Hero h4.5.3–h5.2.0
- QNAP QuTScloud v4.5.1–c5.1.0
- Synology DSM v6.0–v7.2.2
- ASUSTOR ADM v3.5–v5.0.0
- TrueNAS CORE v13.0-U6.2–v13.3-U6.3
- Netgear ReadyNAS OS v6.9–v6.10.10
- WD MyCloud v5

Windows

- Windows Server 2012–2025 (x64)
- Microsoft Windows 11 (21H2–24H2) (x64)
- Windows 10 (1809–22H2) (x64)

Linux

- Ubuntu Server and Desktop 16.04–24.04 LTS (x64)
- Red Hat Enterprise Linux 7.4–9.5 (x64)
- SUSE Linux Enterprise v12 SP3–v15 SP6 (x64)
- CentOS Linux 7.0–8.5 (x64)
- CentOS Stream 8–10 (x64)
- Debian 10.1–12.10 (64-bit)
- AlmaLinux 8.7–9.5 (x64)
- Oracle Linux 7.4–9.5 (64-bit)
- Rocky Linux 8.3–9.5 (64-bit)

For more information, refer to [Deployment Requirements](#).

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