

# NAKIVO Backup & Replication v7.3 for VMware, Hyper-V, and AWS EC2

Fast, reliable, and affordable solution for backup, replication, and recovery of private and public cloud environments

## Key Benefits

- **Install on a NAS server** to create an all-in-one VM backup appliance and boost VM backup speed by up to 2X
- **Protect** VMware, Hyper-V, and AWS EC2 environments with a single product
- **Save time** with a simple and intuitive Web interface and reliable product that does not require babysitting
- **Backup faster** with LAN-free and Network Acceleration features, up to 2X performance when installed on a storage server
- **Skip unnecessary data** with backups that automatically exclude swap files and partitions
- **Reduce storage space** with global deduplication and compression of backups
- **Recover faster** with instant VM, file and application objects recovery
- **Improve uptime** with RTO and RPO of just 10 minutes
- **Save budget** with affordable pricing

## Backup for VMware, Hyper-V, and AWS EC2

NAKIVO Backup & Replication provides image-based, application-aware, and forever-incremental backup for VMware, Hyper-V, and AWS EC2 VMs. This means that NAKIVO Backup & Replication can capture all VM data, ensure the consistency of applications and databases (such as Exchange, Active Directory, MS SQL, SharePoint) running in VMs, and transfer only changes to the backup repository. NAKIVO Backup & Replication uses native change tracking technologies (VMware CBT/Hyper-V RCT) to instantly identify changed data. For each VM backup, you can save up to 1,000 recovery points and rotate them on a daily, weekly, monthly, and yearly basis.

## Backup Copy Offsite and to Cloud

VM backups can be damaged, accidentally deleted, or become unavailable. Backup Copy jobs provide a simple and powerful way to create and maintain copies of your backups. You can configure backup copy jobs to suit your needs: run Backup Copy jobs on their own schedule, send backup copies offsite and to Azure/AWS clouds, maintain a mirrored copy of a backup repository or fine tune what, when, and how backups get copied.

## VM Replication

VM replication creates and maintains identical copies of source VMs on target hosts. If a disaster strikes, you can power on the VM replicas for near-instant disaster recovery. On top of that, you can save up to 30 recovery points for each replica and roll back to a good recovery point at any time.

## Screenshot Verification

NAKIVO Backup & Replication provides an automated way to near-instantly verify VMware VM backups. After a VM backup is completed, the product can instantly recover the VMs, wait until the OS has booted, make a screenshot of the OS, discard the test-recovered VM, and send you a report with the screenshot via email. This way you can not only trust that you have a good backup, but also see (and show to your management) that backups are good and VMs can be recovered.

## Time and Cost Savings

- Streamline deployment and scale out with pre-configured VMware VAs and AWS AMIs
- Create a high performance VM backup appliance by installing directly on an ASUSTOR, QNAP, Synology, or WD NAS
- Reduce footprint with modest system requirements
- Reduce management complexity with a simple and intuitive Web interface
- Reduce backup windows with LAN-free backup and Network Acceleration
- Protect backups by copying them to another backup repository onsite, offsite, Amazon or Azure cloud
- Save storage space with built-in global data deduplication and compression
- Reduce recovery time with instant recovery of VMs, files, and application objects
- Automatically verify backups and get email reports with OS screenshots of test-recovered VMs

## Automated VM Protection

You can ensure that important VMs are always backed up and replicated by protecting entire containers - such as resource pools, folders, hosts, and clusters. This way, all new VMs that are created in or moved to a protected container are automatically added to your VM backup and replication jobs.

## LAN-Free VM Backup and Replication

NAKIVO Backup & Replication automatically uses Hot Add and Direct SAN Access to bypass LAN, offload production networks, and significantly increase backup and recovery speeds.

## Network Acceleration

Because WAN and LAN links are often slow or have limited bandwidth, NAKIVO Backup & Replication can use compression and traffic reduction techniques to speed up data transfer. On average, this results in a network load reduction of 50% and a data transfer acceleration of 2X.

## Skip Swap Files and Partitions

Swap files and partitions serve as a temporary storage for data that is not currently used by RAM. The contents of the swap file change constantly, so each time you back up a VM, the swap file is included in the backup, which means that gigabytes of unnecessary data are processed, transferred, and stored in the backup repository each time you back up a VM. NAKIVO Backup & Replication automatically skips the swap file in VMware and Hyper-V VMs, which speeds up data transfer and saves storage space in a backup repository.

## Global Data Deduplication and Compression

NAKIVO Backup & Replication automatically deduplicates all VM backups across an entire backup repository. Data deduplication works at the block level and ensures that only unique data blocks are saved. On top of that, deduplicated blocks are compressed to ensure that the least amount of space is used.

## Support for Deduplication Appliances

NAKIVO Backup & Replication provides support for enterprise-grade deduplication appliances such as EMC Data Domain, HP StoreOnce, NEC Hydrastor, Quantum DXi, and other similar appliances, which can be used as a backup target. NAKIVO Backup & Replication provides a special backup repository type with an architecture optimized to work with leading deduplication appliances.

## Automatic SQL and Exchange Log Truncation

Microsoft SQL Server and Microsoft Exchange track and record all transactions in transaction log files, which grow over time and may fill up all of the available storage space. NAKIVO Backup & Replication can automatically remove (aka truncate) transaction log files after a successful VM backup or replica is made. This prevents log files from growing while you have a copy of log files in the backup or replica, should you need to restore your data.

## Deployment Options

- **Install on NAS:** Create a high-performance VM backup appliance by installing directly on an ASUSTOR, QNAP, Synology, or WD NAS
- **Deploy as a VMware VA:** Simply download and import a pre-configured VMware Virtual Appliance
- **Deploy as AWS AMI:** Instantly deploy in Amazon cloud from a pre-configured Amazon Machine Image
- **Install on Linux or Windows:** Install in a single click on Windows or by running a single command on Linux

## Instant VM Recovery

Flash VM Boot enables you to run (boot) VMware VMs directly from compressed and deduplicated VM backups. This way you can recover your VMs within seconds, without waiting for full restore from VM backup files. Using Flash VM Boot, you can also verify VM backups, run disaster recovery tests, and test system updates and application patches.

## Instant Granular Recovery

NAKIVO Backup & Replication enables browsing, searching, and recovering files, Microsoft Exchange objects, Microsoft SQL Server objects, and Microsoft Active Directory objects directly from compressed and deduplicated VM backups, without restoring the entire VM first. This feature is 100% agentless, works out of the box for all backups, and does not require creating a special lab or running a special VM backup type.

## Full VM Recovery from Backup

If a backed up VM is accidentally damaged or deleted, you can recover the VM from its backup in just a few clicks. The VM can be recovered in exactly the same state as it was during the backup and appear on the host you selected for recovery.

## Disaster Recovery with VM Replicas

Because VM replication creates identical copies of source VMs, recovering from a disaster is as simple as powering on the replicated VMs. If a source VM has been damaged and then replicated, you can roll it back to a previous recovery point.

## HTTP APIs for Automation

HTTP APIs enable you to automate and orchestrate VM backup, replication, and recovery. APIs enable you to integrate NAKIVO Backup & Replication with monitoring, automation, and orchestration solutions to reduce time spent on data protection management and decrease data protection costs.

## Calendar Dashboard and Flexible Job Scheduler

Calendar Dashboard displays all the past, current, and future backup jobs in a simple calendar view and allows for easy scheduling of backup jobs in large environments while avoiding schedule overlaps. Flexible Job Scheduler enhances job scheduling by allowing to add multiple schedules to a single job.

## Enterprise Scalability

NAKIVO Backup & Replication is a modular solution that can be fully installed on a single machine to protect small and mid-sized environments, or can be installed on distributed systems to protect enterprise environments. Our top customers protect 7,000+ VMs and span across 200+ locations.

## About NAKIVO

Headquartered in United States, NAKIVO Inc. is a privately-held company founded in 2012. NAKIVO develops a fast, reliable, and affordable data protection solution for virtualized and cloud environments. Over 10,000 companies worldwide are using NAKIVO Backup & Replication to protect and recover their data more efficiently and cost effectively, while over 150 hosting, managed, and cloud service providers are using NAKIVO's software to deliver VM BaaS and DRaaS to their customers. NAKIVO has a global presence with over 2,000 channel partners in 126 countries worldwide.

## Active Directory Integration

NAKIVO Backup & Replication provides integration with Microsoft Active Directory. You can easily map Active Directory groups to NAKIVO Backup & Replication user roles. With this feature, you can align NAKIVO Backup & Replication with your company's security policy and seamlessly provide Admin and Guest access to NAKIVO Backup & Replication.

## Multi-Tenancy and Self-Service

Multi-tenancy enables creating multiple isolated groups, departments or tenants within a single product deployment and manage them from a single pane of glass. This way, you can introduce backup-as-a-service to your clients more easily and cost-effectively. In the Multi-Tenant mode, tenants can access the self-service portal to offload backup, replication, and recovery tasks from the service provider.

## Supported Hypervisors and Clouds

NAKIVO Backup & Replication supports the following hypervisors and clouds:

- AWS EC2
- Microsoft Hyper-V 2016 – 2012
- VMware vSphere v6.5 – 4.1

## System Requirements

NAKIVO Backup & Replication requires 2 CPU cores and 4 GB RAM (except when installed on supported NAS models). In addition to pre-configured VMware VA and AWS AMI deployment options, the product can be installed on:

- **Windows:**
  - Windows Server 2016 Standard
  - Windows Server 2012 R2 Standard
  - Windows Server 2012 Standard
  - Windows Server 2008 R2 Standard
  - Windows 10 Professional (x64)
  - Windows 8 Professional (x64)
  - Windows 7 Professional (x64)
- **Linux:**
  - Ubuntu 16.04 Server (x64)
  - Ubuntu 12.04 Server (x64)
  - Red Hat Enterprise Linux 6.3 (x64)
  - SUSE Linux Enterprise 11 SP3 (x64)
- **NAS:** Refer to [System Requirements](#) for a list of supported NAS models by ASUSTOR, QNAP, Synology, and Western Digital.

Learn more at [www.nakivo.com](http://www.nakivo.com)

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