

# #1 Backup, Ransomware Protection and Site Recovery for Virtual, Physical, Cloud, and SaaS Environments

A fast, reliable, and affordable solution that delivers backup, replication, instant restore, and disaster recovery in a single pane of glass.

## Backup

With NAKIVO Backup & Replication, you can reliably protect your virtual, physical, cloud, and SaaS environments, ensure the consistency of application data, increase backup performance, and reduce backup size.

- **VM Backup:** Create image-based, incremental backups of VMware, Hyper-V, and Nutanix AHV VMs.
- **Microsoft 365 Backup:** Protect Microsoft 365 data, such as mailboxes (including user, shared, and group<sup>NEW</sup>), contacts, calendar events, sites, lists, drives, files, folders, and more.
- **Physical Machine Backup:** Create image-based, incremental backups of Windows-based and Linux-based physical servers and workstations.
- **NAS Backup<sup>NEW</sup>:** Back up file share folders on NAS devices and Windows/Linux machines using the NFS and SMB (CIFS) protocols.
- **Amazon EC2 Backup:** Create image-based, incremental backups of Amazon EC2 instances.
- **Oracle Backup:** Create backups for Oracle databases via RMAN.
- **VMware Cloud Director Backup:** Back up VMware Cloud Director objects, such as vApps, individual VMs, and storage policies.
- **Backup from Storage Snapshots:** Create backups for VMware VMs hosted on HPE 3PAR and Nimble Storage<sup>NEW</sup> devices directly from storage snapshots.
- **Backup to Cloud:** Send backups or backup copies to public clouds, including Amazon S3, and Wasabi.
- **Ransomware-Resilient Backups:** Enable immutability for backups sent to Amazon S3 (with S3 Object Lock enabled) and hardened Linux-based local repositories deployed as part of a pre-configured virtual appliance or Amazon Machine Image.
- **Backup to Tape:** Send backup copies to physical tape libraries and AWS VTL; easily manage tape devices, cartridges, and backups.
- **Backup Copy:** Create copies of your backups and send them to a remote site or a public cloud.
- **Global Deduplication:** Deduplicate backups across the entire backup repository, regardless of the platform.
- **Instant Backup Verification:** Instantly verify VMware and Hyper-V VM backups; get a report with screenshots of test-recovered machines.
- **Application Support:** Ensure the consistency of applications and databases, such as Microsoft Exchange, Microsoft Active Directory, Microsoft SQL Server, and Oracle Database.
- **Deduplication Appliance Support:** Send backups to deduplication appliances such as HPE StoreOnce, Dell EMC Data Domain, and NEC HYDRAsTOR.

**20,000+**

paid customers across the Americas, Europe and Asia

**98%**

customer satisfaction with support

**5-star**

online community reviews

Largest customers protect

**8 000+**

VMs

**300+**

Sites

## NAS Backup<sup>NEW</sup>

- **File Share Backup:** Back up network CIFS/NFS shares hosted on NAS devices as well as Windows and Linux machines.
- **Backup Copy:** Easily create backups and backup copies of shares or specific share folders and send them offsite.
- **File-level Recovery:** Along with the entire file shares, recover specific files and folders inside shares.
- **Multiple recovery options:** Recover data to a custom location on CIFS/NFS shares, send via email or download to a browser.

## Instant Recovery

With NAKIVO Backup & Replication, you can instantly recover VMs, files, and application objects directly from deduplicated backups.

- **Instant VM Recovery:** Boot VMware and Hyper-V VMs directly from deduplicated backups; migrate booted VMs to production if necessary.
- **Instant Physical to Virtual (P2V):** Instantly boot VMware VMs from physical machine backups.
- **Instant File Recovery:** Browse, search, and instantly restore files and folders to their original location, to a local folder, CIFS or NFS share, download to your browser, or forward via email as an attachment.
- **Instant Object Recovery for Microsoft Exchange:** Browse, search, and recover individual emails and other Exchange objects to the original location, to a custom location, or export to a local folder or CIFS share.
- **Instant Object Recovery for Microsoft Active Directory:** Browse, search, and recover individual users, user groups and other AD objects to the original location, or export to a local folder or CIFS share.
- **Instant Object Recovery for Microsoft SQL:** Browse, search, and restore individual tables and databases to the original location, to a custom location, or export to a local folder or CIFS share.
- **Universal Object Recovery:** Instantly recover individual objects by mounting VM disks from a backup directly to your production machines.
- **Cross-Platform Recovery:** Export VM disks across platforms to recover VMware VMs to a Hyper-V environment and vice versa.

## Ransomware Protection

With NAKIVO Backup & Replication, you can ensure proper ransomware protection, improve backup reliability and provide instant recovery in case of a ransomware attack.

- **Air-gapped backups:** Keep backups and backup copies offline (tape, detachable NAS, USB drives, etc.) for ultimate ransomware protection.
- **Immutable Amazon S3 backups:** Make backups and backup copies stored in Amazon S3 buckets immutable for as long as needed to protect them from ransomware and unwanted changes.
- **Immutable Repository:** Enable immutability for backups and backup copies sent to Linux-based local repositories.

## Our Customers



- **Hardened VA/AMI<sup>NEW</sup>:** Deploy the solution as a pre-configured VA or AMI running Ubuntu Server and protect backup data from deletion and encryption by ransomware.
- **Two-Factor Authentication:** Enable two-factor authentication (2FA) for NAKIVO Backup & Replication to prevent hackers from accessing your data protection activities.

## Disaster Recovery

With NAKIVO Backup & Replication, you can perform near-real-time VM replication and orchestrate the disaster recovery process with Site Recovery.

- **VM Replication:** Create and maintain VMware and Hyper-V VM replicas, which are identical copies of your source VMs.
- **Replication from backup:** Replicate VMs directly from backups to reduce the load on the host, free up valuable resources, and save time.
- **Amazon EC2 Instance Replication:** Create and maintain Amazon EC2 instance replicas, which are identical copies of your source instances.
- **Site Recovery:** Create disaster recovery workflows and perform scheduled non-disruptive recovery testing, planned failover, emergency failover, failback, and datacenter migration with one click.
- **Application Support:** Ensure the consistency of applications and databases, such as Microsoft Exchange, Microsoft Active Directory, Microsoft SQL Server, and Oracle Database.
- **Replica Verification:** Instantly verify VMware and Hyper-V VM replicas; get a report with screenshots of test-recovered machines.

## Performance

With NAKIVO Backup & Replication, you can boost backup, replication, and recovery speeds by up to 2x and reduce network load by as much as 50%.

- **Native Change Tracking:** Use native change tracking technologies (VMware CBT, Hyper-V RCT, Nutanix AHV CRT) to instantly identify modified data and send only changed data to the destination.
- **LAN-Free Data Transfer:** Use the HotAdd or Direct SAN Access modes to increase data transfer speed while offloading production networks.
- **Network Acceleration:** Increase performance in busy LAN and WAN networks with built-in network acceleration.
- **Bandwidth Throttling:** Limit the speed of data transfer by configuring global or per-job bandwidth rules.

## Administration

NAKIVO Backup & Replication provides a simple web interface and comes with great features to help you save time and money.

- **Versatile Deployment:** Deploy as a VA, install on Linux or Windows OS, or on a NAS to create an all-in-one backup appliance.
- **Policy-Based Protection:** Automatically back up and replicate machines that match policy rules based on specified parameters (name, size, location, tag, etc.).

## Customer Quotes

“NAKIVO Backup & Replication is simple and intuitive, it took me a little time to learn how to use it, and I didn't have to read manuals.”

**Andrew Arensburger, IT Manager,  
The University of Maryland**

“The amount of storage space reduction we got with NAKIVO Backup & Replication was truly awesome. We achieved 3X reduction in storage space!”

**Roland Kalijurand, IT Manager,  
Radisson Park Inn**

“NAKIVO Backup & Replication installed on a Synology NAS provides us with reduced deployment time, minimized complexity, and improved VM backup speed for the whole district.”

**Jeong-Hyun Cho, Systems Manager,  
Seoul City Gas**

“NAKIVO Backup & Replication has saved us a tremendous amount of time and money. NAKIVO Backup & Replication provided us with a robust and cost-effective VM backup solution for protecting our virtual environment.”

**Tony Burrus, CTO,  
Compton Unified School District**

“With NAKIVO Backup & Replication, we have saved more than 50% vs. maintenance of our previous VM backup solution, and have additionally saved 25% more in storage space costs with better deduplication, lowering our backup expenses by 75% overall.”

**Rick Braddy, Founder and CEO/CTO,  
SoftNAS, Inc.**

- **Calendar Dashboard:** View all past, current, and future jobs in a simple calendar view.
- **Role-Based Access Control:** Assign preset and custom roles and associated rights and permissions to users.
- **Microsoft Active Directory Integration:** Integrate with Microsoft Active Directory and map user groups to NAKIVO Backup & Replication user roles.
- **Global Search:** Instantly find VMs, backups, replicas, jobs, repositories, Transporters, and other objects; act on search results.
- **Job Chaining:** Link jobs so they run one after another. For example, a successful VM backup job to a local storage destination can start a Backup Copy job to copy the newly created backups to a public cloud.
- **API:** Integrate NAKIVO Backup & Replication with monitoring, automation, and orchestration solutions via HTTP API.
- **Self-Backup:** Back up and recover system configuration (jobs, inventory, logs, settings, etc.).
- **Live Chat with Tech Support:** Get help without leaving the web interface.

## VMware Monitoring

NAKIVO Backup & Replication provides a powerful set of tools for monitoring the VM infrastructure:

- **Complete visibility:** Monitor CPU, RAM, and disk usage of your VMware vSphere hosts and VMs, as well as disk usage of VMware vSphere datastores.
- **Comprehensive analytics:** Get accurate and relevant results with real-time and historical data.
- **Efficient administration:** Detect bottlenecks, investigate issues and anticipate future needs.
- **User-friendly interface:** Readable layout for all the data available in the same console where you manage backup activities.

## BaaS and DraaS

NAKIVO Backup & Replication provides a simple way to deliver backup and disaster recovery as a service.

- **Multi-Tenancy:** Create multiple isolated tenants within one product instance and manage them from a single pane of glass.
- **Self-Service:** Offload data protection and recovery tasks to tenants via the self-service portal.
- **Tenant Resource Allocation:** Allocate data protection infrastructure resources (hosts, clusters, individual VMs, Backup Repositories) to tenants.
- **Direct Connect for MSPs:** Access remote environments via a single port connection without requiring a VPN connection.

### NAKIVO Awards



5-star rating backup



Top Performer - Server Backup Software 2021



Leader Summer 2021



5-star rating backup



Software Informer Editor's Pick



Techgenix Gold Award



Gold Award Data Protection



5-star rating backup



Category Leaders 2022

# System Requirements

## Supported Environments

NAKIVO Backup & Replication can protect the following platforms:

### Virtual

- VMware vSphere v5.5– v7.0.3
- Hyper-V 2012, 2012R2, 2016, 2019, 20H2, 2022
- Nutanix AHV 5.10–5.20 (LTS)
- VMware Cloud Director v.10.2.1

### Microsoft 365

- Exchange Online, SharePoint Online, OneDrive for Business

### Physical

- Windows Server 2008R2–2022 (21H2) (x64)
- Windows 10 Pro (20H2-21H2) (x64)
- Windows 11 (21H2) (x64)
- Ubuntu (Server) v16.04–20.04 LTS (x64)
- Ubuntu (Desktop) 18.04–20.04 LTS (x64)
- Red Hat Enterprise Linux v7.0–9.0 (x64)
- SUSE Linux Enterprise 15 SP1–SP2 (x64)
- SUSE Linux Enterprise 12 SP1–SP5 (x64)
- CentOS v7.0–8.4 (x64)

### Amazon Elastic Compute Cloud (EC2)

- All AWS regions
- All instance types
- Virtual private cloud (VPC) and Classic

### Applications

- Oracle Database 11g R2–19c

## Storage Integration

NAKIVO Backup & Replication provides advanced integration with the following deduplication appliances:

- HPE StoreOnce system v3: version 3.18.18 and newer
- HPE StoreOnce system v4: version 4.2.3
- Dell EMC Data Domain 6.1–7.0
- NEC HYDRAsTOR 5.5.1 and newer
- NEC Storage HS Universal Express I/O Module Version 1.8.0 and newer

## Deployment Options

NAKIVO Backup & Replication can be installed on the following operating systems and devices:

### Windows

- Windows Server 2008 R2–2022
- Windows 11 (x64) (21H2)
- Windows 10 Pro (x64) (20H2 / 21H1 / 21H2)
- Windows 10 Home (x64) (20H2/21H1/21H2)
- Windows 8 Professional (x64)
- Windows 7 Professional (x64)

### Linux

- Ubuntu (Server) 16.04–20.04 (x64)
- Red Hat Enterprise Linux 7.4–9.0 (x64)
- SUSE Linux Enterprise 15 SP1–SP2 (x64)
- SUSE Linux Enterprise 12 SP3–SP5 (x64)
- CentOS Linux 7.0–8.4 (x64)
- CentOS Stream 8 (x64)

### NAS

- QNAP QTS v4.3 –v4.5.1; v5.0
- QNAP QuTS hero h4.5.3
- Synology DSM v6.0–v7.0.1
- ASUSTOR ADM v3.5–v.4.0
- FreeNAS 11.3
- TrueNAS CORE 12
- NETGEAR ReadyNAS OS v6.9–v6.10.x
- WD MyCloud OS v5

## Hardware

NAKIVO Backup & Replication requires the following hardware configuration:

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

## About NAKIVO

NAKIVO is a US-based corporation dedicated to delivering the ultimate backup, ransomware protection and disaster recovery solution for virtual, physical, cloud and SaaS environments. As one of the fastest-growing backup and ransomware recovery software vendors in the industry, NAKIVO boasts 23 consecutive quarters of double-digit growth, 5-star online community reviews, 98% customer satisfaction with support and a network of over 6,800 partners worldwide. Over 20,000 customers in 166 countries trust NAKIVO with protecting their data, including major companies like Coca-Cola, Honda, Siemens and Cisco.