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**: Back up Microsoft 365 data, such as Exchange Online mailboxes (including Contacts and Calendar items), OneDrive for Business files, and SharePoint Online sites.
- **Physical Machine Backup**: Create image-based, incremental backups of Windows-based and Linux-based physical servers and workstations.
- **Amazon EC2 Backup**: Create image-based, incremental backups of Amazon EC2 instances.
- **Oracle Backup**: Create backups of Oracle databases via RMAN.
- **VMware Cloud Director Backup**: Back up VMware Cloud Director objects, such as vApps, individual VMs and vApp metadata.
- **Backup from Storage Snapshots**: Create backups of VMware VMs hosted on HPE 3PAR storage devices directly from storage snapshots.
- **Backup to Cloud**: Send backups or backup copies to public clouds, including Amazon S3, Wasabi, and Azure. Apply S3 Object Lock to protect your backups stored in Amazon S3 against ransomware.
- **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.
- **Backup Encryption**: Protect your data in flight and at rest with AES 256 encryption.
- **Application Support**: Ensure the consistency of applications and databases, such as Microsoft Exchange, AD, SQL, Oracle, SharePoint, and so on.
- **Log Truncation for Microsoft Exchange and SQL**: Truncate application log files after a successful machine backup.
- **Deduplication Appliance Support**: Send backups to deduplication appliances such as HPE StoreOnce, Dell EMC Data Domain, and NEC HYDRAstor.
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 to Source**: Browse, search, and instantly restore files and folders back to source.
- **Instant Object Recovery for Microsoft Exchange**: Browse, search, and recover individual emails and other Exchange objects back to the original location.
- **Instant Object Recovery for Microsoft Active Directory**: Browse, search, and recover individual users, user groups and other AD objects back to the original location.
- **Instant Object Recovery for Microsoft SQL**: Browse, search, and restore individual tables and databases back to the original location.
- **Universal Application Object Recovery**: Instantly recover objects of any application by mounting 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.

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, Active Directory, SQL, Oracle, SharePoint, and so on.
- **Log Truncation for Microsoft Exchange and SQL**: Truncate application log files after a successful machine replication.
- **Replica Verification**: Instantly verify VMware and Hyper-V VM replicas; get a report with screenshots of test-recovered machines.
- **Encryption**: Protect your data in flight with AES 256 encryption.

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 Hot Add 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, which can be based on machine name, tag, size, location, and so on.

• **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:** Protect system configuration including all of your jobs, inventory, settings, and so on.

• **Live Chat with Tech Support:** Get help without leaving the web interface.

### BaaS and DraaS

NAKIVO Backup & Replication provides a simple way to deliver data protection 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 the remote environments via single port connection without requiring a VPN connection.

### 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.
### System Requirements

#### Supported Environments

NAKIVO Backup & Replication can protect the following platforms:

**Virtual**
- VMware vSphere v4.1–v7.0.2
- Hyper-V 2012–2019
- Nutanix AHV 5.10 (LTS)
- VMware Cloud Director 10.2.1

**SaaS**
- Microsoft 365

**Physical**
- Windows Server 2008R2–2019
- Windows 10 Pro (x64)
- Ubuntu v16.04–18.04 Server LTS (x64)
- Ubuntu 18.04–20.04 (Desktop) LTS (x64)
- RHEL v7.0–7.5 (x64)
- SLES v12.0–12.4 (x64)
- CentOS v7.0–7.6 (x64)

**Cloud**
- Amazon EC2

**Applications**
- Oracle Database 11g R2–19c

#### Deployment Options

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

**Windows**
- Windows Server 2008 R2–2019
- Windows 7–10 Professional (x64)

**Linux**
- Ubuntu 16.04–18.04 Server (x64)
- Red Hat Enterprise Linux 7.6 (x64)
- Red Hat Enterprise Linux 7.5 (x64)
- Red Hat Enterprise Linux 7.4 (x64)
- SUSE Linux Enterprise 12 SP3 (x64)
- CentOS Linux 7.6 (x64)
- CentOS Linux 7.5 (x64)
- CentOS Linux 7.4 (x64)
- CentOS Linux 7.3 (x64)
- CentOS Linux 7.2 (x64)
- CentOS Linux 7.1 (x64)
- CentOS Linux 7.0 (x64)

**NAS**
- ASUSTOR ADM v3.2
- ASUSTOR ADM v3.1
- ASUSTOR ADM v3.0
- FreeNAS 11.3
- NETGEAR ReadyNAS v6.10
- Synology DSM v6.2
- Synology DSM v6.1
- Synology DSM v6.0
- QNAP QTS v4.5.1
- QNAP QTS v4.4
- QNAP QTS v4.3
- WD MyCloud OS v3

#### 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

#### Storage Integration

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

- HPE StoreOnce 3.18.18 and 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
- HPE 3PAR 3.1.2 and higher

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### About NAKIVO

NAKIVO is dedicated to delivering the ultimate backup and site recovery solution. With 21 consecutive quarters of double-digit growth, 5-star online community reviews, 98% customer satisfaction with support, and more than 18,000 paid customers worldwide, NAKIVO provides an unprecedented level of protection for physical, virtual, and cloud environments.