



# Ransomware Protection

## with NAKIVO Backup & Replication

As a solution for ransomware protection and recovery for physical, virtual, cloud and SaaS environments, NAKIVO Backup & Replication can strengthen your incident response plan and disaster recovery strategy. The solution can deliver the functionality that you need to overcome a ransomware incident and limit data loss, downtime and financial repercussions for your company.

### Business Challenges

Even the best anti-ransomware software can fail as cybercriminals find new ways of infiltrating protected systems. With ransomware attacks hitting companies daily, incident response plans are now developed to include operational and disaster recovery capabilities to minimize RTOs and RPOs. However, there are challenges specific to ransomware protection that can complicate data protection efforts. These challenges include protecting backup data from getting infected and having enough restore options to meet short- and long-term recovery needs.

### Solution Overview

When all else fails, what you need is a reliable backup solution to ensure that your data is recoverable without paying the ransom. NAKIVO Backup & Replication can help you prevent data loss and ensure that your critical systems are up and running immediately after any ransomware incident. The solution addresses all the challenges presented by modern ransomware, offering a variety of backup targets, immutability for backups stored in the cloud, instant recovery options and disaster recovery orchestration functionality.

### How It Works

#### Reliable Backups

Perform image-based, application-aware, incremental backups for virtual, physical, cloud, SaaS and mixed workloads

#### Instant VM Recovery

Boot your VMware vSphere and Microsoft Hyper-V VMs from deduplicated and compressed backups in minutes and migrate to production if needed.

#### Instant Granular Recovery

Recover files and objects in applications like Microsoft Exchange, Active Directory, Microsoft SQL Server, Microsoft 365 and Oracle Database.

#### Replication for Automated Failover

Replicate VMs to a secondary site to power on the replica when needed with automated failover, incorporating network mapping and re-IP rules.

Incident responses are complex, requiring a sequence of actions to work as planned: from detection, containment and eradication to data recovery and restoration of affected systems. NAKIVO Backup & Replication delivers all the automation and testing tools to ensure a hassle-free, fail-safe return to normal.



#### One Centralized Web Interface

With different production workloads and the large amount of data necessary for ensuring smooth daily business operations, data protection may add unnecessary complexity. With NAKIVO Backup & Replication, you get a centralized web interface for full visibility and control of all protected workloads and all data protection activities.



#### Support for Multiple Platforms

Protect all your workloads with one comprehensive solution: VMware vSphere, Microsoft Hyper-V, Nutanix AHV, Amazon EC2, Windows/Linux servers and workstations, Microsoft 365 and Oracle Database. The solution also offers advanced integration with a variety of cloud storage platforms, deduplication appliances and NAS devices.



#### Ransomware-Proof Backups

As ransomware attackers expand the scope to infect backups, you need to ensure that backup data in the cloud remains available when you need it. Ensure data availability with the integrated S3 Object Lock functionality in NAKIVO Backup & Replication. Enable this feature to make your backups in Amazon S3 immutable for as long as you need and hence immune to modification.



#### Advanced Automation

Preparing for cybersecurity threats in an ever-evolving landscape is complicated and time-consuming. That is why NAKIVO Backup & Replication delivers different automation features for every step of the data protection process to ensure rapid, effective backups and recoveries. With features like rule-based policies, Job Chaining, Site Recovery for disaster recovery orchestration and automated failover/failback, you free up time to focus on detecting and identifying threats.



#### Recovery Verification

NAKIVO Backup & Replication can automatically verify backups and replicas to provide you with proof of VM recoverability. Choose to check recoverability by verifying hypervisor tools availability or by taking a screenshot of the test recovered VM. Receive the results to your inbox or view them in the web interface.



#### Disaster Recovery Orchestration

Orchestrate disaster recovery workflows to minimize the disruptive impact of ransomware and resume your workflows in minutes. Perform disaster recovery testing with impacting the production environment to achieve 24/7 data availability and business continuity.

## Features

### Backup Copy Offsite

Send backup copies to offsite storage (like tape) or directly to the cloud (Amazon S3, Azure or Wasabi Hot Cloud Storage).

### Job Chaining

Automate backup copies so that primary backups are automatically copied to a secondary repository, allowing for a speedy recovery.

### Instant P2V Recovery

Recover physical machines by booting VMware vSphere VMs from physical machine backups.

### Flexible Retention Policies

Rotate thousands of recovery points using the GFS scheme to ensure that you have the version you need for ransomware recovery.

### Role-Based Access Control

Prevent unauthorized access to your ransomware protection activities using the role-based access control (RBAC).

### Global Deduplication

Global deduplication across an entire repository – regardless of the source of data – improves VM backup performance and lowers costs for long-term data retention.

### Replication from Backup

Perform replication directly from VM backups to avoid consuming production resources.

**Create multiple backup copies of your physical, virtual, cloud and SaaS environments for safe storage onsite, offsite and in the cloud**



**Instantly recover entire VMs, individual files, folders and objects to the original or custom location**

## Get More with NAKIVO Backup & Replication

- **Performance-boosting features** — Built-in tools for higher backup speeds, shorter backup windows and maximum storage savings, including Global Data Deduplication across the entire backup repository.
- **Backup for Microsoft 365** — Backup Exchange Online, OneDrive for Business and SharePoint Online data and recover files, folders, emails, contacts, calendars, lists and document libraries in minutes.
- **24/7 Support** — Our highly skilled technical support team is available around the clock by phone, email and built-in chat.

## System Requirements

### Supported Environments

NAKIVO Backup & Replication can protect the following platforms:

#### Physical

- Windows Server 2008R2–2019
- Windows 10 Pro, 64-bit
- Ubuntu v16.04–18.04 Server LTS, 64-bit
- Ubuntu 18.04–20.04 (Desktop) LTS, 64-bit
- RHEL v7.0–7.5, 64-bit
- SLES v12.0–12.4 64-bit
- CentOS v7.0–7.6, 64-bit

#### Virtual

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

#### Cloud

- Amazon EC2

#### Applications

- Oracle Database 11g R2–19c

#### SaaS

- Microsoft 365
- Exchange Online

### 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

### Deployment Options

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

#### Windows

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

#### Linux

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

#### NAS

- ASUSTOR ADM v3.0–v3.2
- FreeNAS 11.3
- NETGEAR ReadyNAS v6.9– v6.10
- Synology DSM v6.0–v6.2
- QNAP QTS v4.3, v4.4, v4.5.1
- WD MyCloud OS v3

### Storage Integration

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

- HP 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

## About NAKIVO

NAKIVO is a US-based corporation 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 virtual, physical, cloud and SaaS environments.

