NetBackup™ Release Notes

Release 11.1

VERITAS
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NetBackup™ Release Notes

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Legal Notice

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Technical Support

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You can manage your Cohesity account information at the following URL:

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Worldwide (except Japan)	CustomerCare@veritas.com
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Documentation

Make sure that you have the current version of the documentation. Each document displays the date of the last update on page 2. The latest documentation is available on the Cohesity website.

Cohesity Services and Operations Readiness Tools (SORT)

Cohesity Services and Operations Readiness Tools (SORT) is a website that provides information and tools to automate and simplify certain time-consuming administrative tasks. Depending on the product, SORT helps you prepare for installations and upgrades, identify risks in your datacenters, and improve operational efficiency. To see what services and tools SORT provides for your product, see the data sheet:

https://sort.veritas.com/data/support/SORT_Data_Sheet.pdf

Contents

Chapter 1

About NetBackup 11.1

This chapter includes the following topics:

About the NetBackup 11.1 release

The *NetBackup Release Notes* document is meant to act as a snapshot of information about a version of NetBackup at the time of its release. Old information and any information that no longer applies to a release is either removed from the release notes or migrated elsewhere in the NetBackup documentation set.

See "About new enhancements and changes in NetBackup" on page 10.

About EEBs and release content

NetBackup 11.1 incorporates fixes to many of the known issues that affected customers in previous versions of NetBackup. Some of these fixes are associated with the customer-specific issues. Several of the customer-related fixes that were incorporated into this release were also made available as emergency engineering binaries (EEBs).

Listings of the EEBs and Etracks that document the known issues that have been fixed in NetBackup 11.1 can be found on the Cohesity Operations Readiness Tools (SORT) website and in the *NetBackup Emergency Engineering Binary Guide*.

See "About Cohesity Services and Operations Readiness Tools" on page 42.

About NetBackup appliance releases

The NetBackup appliances run a software package that includes a preconfigured version of NetBackup. When a new appliance software release is developed, the

latest version of NetBackup is used as a basis on which the appliance code is built. For example, NetBackup Appliance 3.1 is based on NetBackup 8.1 This development model ensures that all applicable features, enhancements, and fixes that were released within NetBackup are included in the latest release of the appliance.

The NetBackup appliance software is released at the same time as the NetBackup release upon which it is based, or soon thereafter. If you are a NetBackup appliance customer, make sure to review the *NetBackup Release Notes* that correspond to the NetBackup appliance version that you plan to run.

Appliance-specific documentation is available at the following location:

http://www.veritas.com/docs/000002217

About NetBackup Late Breaking News

For the most recent NetBackup news and announcements, visit the NetBackup Late Breaking News website at the following location:

http://www.veritas.com/docs/000040237

Other NetBackup-specific information can be found at the following location:

https://www.veritas.com/support/en_US/15143.html

About NetBackup third-party legal notices

NetBackup products may contain third-party software for which Cohesity is required to provide attribution. Some of the third-party programs are available under open source or free software licenses. The license agreement accompanying NetBackup does not alter any rights or obligations that you may have under those open source or free software licenses.

The proprietary notices and the licenses for these third-party programs are documented in the *NetBackup Third-party Legal Notices* document, which is available at the following website:

https://www.veritas.com/about/legal/license-agreements

Chapter 2

New features, enhancements, and changes

This chapter includes the following topics:

About new enhancements and changes in NetBackup

In addition to new features and product fixes, NetBackup releases often contain new customer-facing enhancements and changes. Examples of common enhancements include new platform support, upgraded internal software components, interface changes, and expanded feature support. Most new enhancements and changes are documented in the *NetBackup Release Notes* and the NetBackup compatibility lists.

Note: The *NetBackup Release Notes* only lists the new platform support that begins at a particular NetBackup version level at the time of its release. However, Cohesity routinely backdates platform support to previous versions of NetBackup. Refer to the NetBackup Compatibility List for all Versions for the most up-to-date platform support listings.

See “About the NetBackup 11.1 release” on page 8.

See “About NetBackup compatibility lists and information” on page 50.

NetBackup 11.1 new features, changes, and enhancements

New features, changes, and enhancements in NetBackup 11.1 are grouped below by category. Select a link to read more information about the topic.

New features

- Enhanced WebSocket Server Credential Security with JWT Authentication
- New Reporting Enhancements in NetBackup Web UI
- Vault Management Enhancements in NetBackup Web UI
- Storage Unit Groups Overview
- Cross-Domain Backup Replication Support
- Storage server credentials

Secure communication features, changes, and enhancements

- **Note:** Before you install or upgrade to NetBackup 11.1 from a release earlier than 8.1, make sure that you read and understand the *NetBackup Read This First for Secure Communications* document. NetBackup 8.1 includes many enhancements that improve the secure communications of NetBackup components. The *NetBackup Read This First for Secure Communications* document describes the features and benefits of these enhancements:

  NetBackup Read This First for Secure Communications

Support changes and enhancements

- NetBackup 11.1 support additions and changes
- NetBackup 11.0.0.1 and earlier support additions and changes qualified in NetBackup 11.1
- Several shutdown commands to be deprecated in a future release
- New features and enhancements to the NetBackup web UI

Installation, upgrade, and configuration changes and enhancements

- Change in the NetBackup default path - application folder and setup logs

Cloud-related changes and enhancements

- Update cloud configuration file on the primary and media server immediately after install or upgrade to NetBackup 11.1

Other announcements

- See “Cohesity will no longer deliver the Java Admin Console for NetBackup after the 11.1 release” on page 18.

Changes in Cohesity terminology

To modernize our terminology, Cohesity has begun to replace certain outdated terms with more current terms.

Note: As Cohesity continues to update its terminology, the deprecated terms and the new terms may be used interchangeably.

Deprecated term	New term
Master	Primary
Slave	Secondary or media server
Whitelist or white list	Allowed list
Blacklist or black list	Blocked list
White hat	Ethical
Black hat	Unethical

Update cloud configuration file on the primary and media server immediately after install or upgrade to NetBackup 11.1

If you use cloud storage in your NetBackup environment, you may need to update your cloud configuration file on the NetBackup primary server immediately after you install or upgrade to NetBackup 11.1. If a cloud provider or related enhancement is not available in the cloud configuration file after you upgrade to NetBackup 11.1, related operations fail.

Cohesity continuously adds new cloud support to the cloud configuration files between releases. Updating your cloud configuration files is necessary only if your cloud storage provider was added to the cloud configuration package after version 2.13.6.

The following cloud support has been added to version 2.13.7 and later but was not included in the NetBackup 11.1 final build:

- HPE Alletra Storage MP X10000 - Object Lock (S3)
- Cloud Object store protection (COSP) - HPE Alletra Storage MP X10000
- Secsmart HyperProtect Data Lake Storage (S3)
- Cloud Object store protection (COSP) Nutanix Objects
- Cloud Object store protection (COSP) - PSPACE InfiniStor

- FortKnox for NetBackup AWS (S3) regions
  - Asia Pacific (Taipei)
  - Asia Pacific (Malaysia)
  - Asia Pacific (New Zealand)
  - Asia Pacific (Thailand)
- Amazon (S3) region
  - Asia Pacific (New Zealand)

https://www.veritas.com/content/support/en_US/downloads/update.UPD971796

For additional information on adding cloud storage configuration files, refer to the following technical article:

http://www.veritas.com/docs/100039095

RESTful APIs included in NetBackup 11.1

NetBackup 11.1 includes both updated and new RESTful application programming interfaces (APIs). These APIs are built on the Representational State Transfer (REST) architecture. They provide a web-service-based interface that lets you configure and administer NetBackup in your environments.

API documentation

You can find documentation for the NetBackup APIs in on SORT and on your primary server. Make sure to review the *Versioning* topic and the *What's New* topic in the *Getting Started* section.

- On SORT:
  NetBackup API documentation is available on SORT:
  HOME > KNOWLEDGE BASE > Documents > Product Version > 11.1
  Look under **API Reference**. A *Getting Started* document provides background information about using NetBackup APIs. The API YAML files are also available for reference, however, they are not functional. You cannot test the APIs from the documents on SORT.
- On your primary server:
  APIs are stored in YAML files on the primary server:
  `https://<primary_server>/api-docs/index.html`
  The APIs are documented in Swagger format. This format lets you review the code and test the functionality by making actual calls with the APIs. You must have the appropriate security permissions to access the primary server and APIs to use the Swagger APIs.

Caution: Cohesity recommends that you test APIs only in a development environment. Because you can make actual API calls from the Swagger files, you should not test the APIs in a production environment.

New features and enhancements to the NetBackup web UI

In this release the NetBackup web UI contains the following new features and enhancements:

- You can now update the credentials for a storage server from the NetBackup web UI. Previously this capability was only available with the `tpconfig` command.
- The default theme for the NetBackup web UI is now dark mode.
- The NetBackup web UI is updated to replace Veritas Alta View with Cohesity Alta View.
- The web UI is updated to support RBAC control on policies. RBAC permissions can be applied to all policies, policies of a specific type, or specific policies.
- The web UI adds support for SAN client. In the Media servers node, you can view the Fibre Transport devices and Fibre Transport connections, and you can enable or disable Fibre Transport services.
- The web UI adds support for summary of policies with attributes, schedules, and clients.

Several shutdown commands to be deprecated in a future release

A new, fully documented command for shutting down NetBackup processes and daemons will be provided in an upcoming release. At that point, the following commands will no longer be available:

- `bp.kill_all`
- `bpdown`
- `bpclusterkill`

Please plan accordingly. The new command will be announced in future release notes and in the *NetBackup Commands Reference Guide*.

Support to create instant access VM feature for Nutanix AHV

NetBackup 11.1 supports the create instant access VM feature using instant access for Nutanix AHV. This feature is only supported for BYO.

For more information, refer to the *NetBackup for Nutanix AHV Administrator's Guide*.

Support for Kernel-based Virtual Machine (KVM)

This release includes support for the KVM workload. No additional management application layer (for example, oVirt) is required.

NetBackup 11.1 support additions and changes

Note: This information is subject to change. See the NetBackup Compatibility List for all versions for the most recent product and services support additions and changes.

The following products and services are supported starting with NetBackup 11.1:

Platforms

- Primary, Media, and Client
  - Red Hat Enterprise Linux 10.0 [x86-64]
- Client
  - Red Hat Enterprise Linux 10.0 [POWER10]
  - AlmaLinux 10 [x86-64]
  - Debian 13 [x86-64]
- Cluster Primary Server
  - Red Hat Enterprise Linux Pacemaker 0.12.0 - Red Hat Enterprise Linux 10.0 [x86-64]

Database

- MySQL 9.x - Red Hat Enterprise Linux 10.0 [x86-64]
- MariaDB 11.x - Redhat Enterprise Linux 10.0 [x86-64]

Virtualization

- VMware Guest Operating System - Red Hat Enterprise Linux 10.0
- Hyper-V Guest Operating System - Red Hat Enterprise Linux 10.0

NetBackupSnapshotManager

- NetBackup Snapshot Manager - Red Hat Enterprise Linux 10.0

BMR Support

- Oracle Enterprise Linux 9.3 and 9.4

NetBackup 11.0.0.1 and earlier support additions and changes qualified in NetBackup 11.1

Note: This information is subject to change. See the NetBackup Compatibility List for all Versions for the most recent product and services support additions and changes.

The following products and services are supported for NetBackup 11.0.0.1 and earlier versions and qualified with NetBackup 11.1

Platforms

- Primary, Media, and Client
  - Red Hat Enterprise Linux 9.6 [x86-64]
  - Oracle Linux 9.6 Unbreakable Linux Kernel [x86-64]
  - Oracle Linux 9.6 Red Hat Compatible Kernel [x86-64]
  - SUSE Linux Enterprise Server 15 SP7 [x86-64]
- Client
  - SUSE Linux Enterprise Server 15 SP7 [POWER9]
  - SUSE Linux Enterprise Server 15 SP6 [POWER10]
  - AIX 7.3 TL3 [POWER10]
  - Red Hat Enterprise Linux 9.6 [POWER10]
  - AIX 7.2 TL5 [POWER10]

Database

- Oracle Database 23ai - Windows Server 2025 [x86-64]
- PostgreSQL 17.x - SUSE Linux Enterprise Server 15.x [x86-64]
- SharePoint SE - MS SQL 2022 - Windows Server 2025 [x86-64]

NDMP

- Dell EMC PowerStore OS 4.1 NDMP

OpenStorage

- Dell Data Domain OST plug-in 8.4

Virtualization

- Nutanix AOS 7.3 - Windows Server (Backup Host)
- Nutanix AOS 7.3 - Red Hat Enterprise Linux (Backup Host)

CloudStorage

- IDrive e2 Cloud storage
- HPE Alletra Storage MP X10000 (Private cloud) v1.2.x Object Lock
- Secsmart HyperProtect Data Lake Storage (Private Cloud)

CloudObjectStoreProtection

- HPE Alletra Storage MP X10000 (Private cloud) v1.2.x

Cluster Primary Server

- InfoScale 9.0 - Windows Server 2019
- InfoScale 9.0 - Windows Server 2025
- InfoScale 9.0.1 - Red Hat Enterprise Linux 9.6
- InfoScale 9.0.2 - Red Hat Enterprise Linux 8.10 [x86_64]

Kubernetes

- Kubernetes - Vanilla 1.33

SAPHANA

- SAP HANA 2.0 SPS 08 - Red Hat Enterprise Linux 9.6 [POWER10]
- SAP HANA 2.0 SPS 08 - SUSE Linux Enterprise Server 15 SP6 [POWER10]
- SAP HANA 2.0 SP 08 - Red Hat Enterprise Linux 9.6 [x86_64]

TapeLibraries

- Spectra Logic Spectra Cube Tape library with IBM LTO-8 Tape drive

TapeDrives

- IBM LTO-10 Tape drive

Cohesity will no longer deliver the Java Admin Console for NetBackup after the 11.1 release

End of Life (EOL) Statement

Cohesity is discontinuing the delivery of the Java Admin Console following the 11.1 release. This change is intended to streamline the user experience as all the configuration and management tasks will move to the Web UI. For the subsequent releases, the product and installation media for primary servers and media servers will not include the Java Admin Console. There will be no further updates or support for the Java Admin Console.

This End-of-Life statement does not apply to the BAR (Backup Archive and Restore) Java UI. The BAR UI will continue to be available and supported.

Cohesity will continue to support the Java Admin Console for all earlier releases and will follow the published End of Support for prior NetBackup version guidelines.

MSDP server evacuation in NetBackup

NetBackup 11.1 introduces MSDP server evacuation. MSDP server evacuation is the process of migrating images from one MSDP server to multiple other MSDP servers. This feature uses MSDP volume group (MVG) to manage the evacuation of an MSDP server. The system remains fully operational during the migration, and no additional changes to the NetBackup configuration are required.

For more information, see the *NetBackup Deduplication Guide*.

Cloud LSU consolidation support

Starting with NetBackup 11.1, you can now consolidate cloud LSUs from one MSDP media server to another. This enhancement simplifies cloud storage management and enables more flexible resource allocation across media servers.

For more information, see the *NetBackup Deduplication Guide*.

Object change tracking for Cloud object store protection

NetBackup introduces Object Change Tracking, a feature that uses native object store mechanisms to identify changed objects. One such mechanism is S3 Bucket Logging, which records operations such as create, update, and delete in protected buckets.

NetBackup analyzes these logs to detect changes and perform efficient incremental backups without scanning entire buckets. This approach significantly improves backup performance.

NetBackup 11.1 supports this mechanism for IBM Storage Ceph using S3's Bucket Logging feature.

For more information, refer to the *NetBackup for Cloud Object Store Administrator's Guide*.

Replication is now supported for HPE GreenLake for Block storage arrays

NetBackup 11.1 introduces support for replication on HPE GreenLake for Block Storage arrays using the SYNC replication configuration.

For more information, refer to the *NetBackup Snapshot Manager for Data Center Administrator's Guide*.

NetBackup Snapshot Manager for Data Center now supports cloud storage arrays

Starting from NetBackup version 11.1, using the same NetBackup Snapshot Manager for Data Center deployment, you can protect both on-premises NAS assets and cloud assets like VMs and databases. You can protect cloud assets using an on-premises deployment, or protect on-premises assets using a cloud-based deployment.

For more information, refer to the *NetBackup Snapshot Manager for Data Center Administrator's Guide*.

PaaS database support enhancements

Incremental backup support

Added incremental backup support for the following PaaS databases:

- AWS RDS PostgreSQL
- AWS Aurora PostgreSQL
- AWS RDS SQL Server
- AWS DynamoDB
- GCP PostgreSQL

Azure workload improvements

- Removed the temporary staging database requirement for Azure SQL and Azure Managed Instance incremental backups.
- Added elastic pool support for Azure SQL Database.

For more information, refer to the *NetBackup Web UI Cloud Administrator's Guide*.

Support for NextGen Malware Scanner tool

NetBackup 11.1 now provides support for NetBackup NextGen Malware Scanner tool. For more information, refer to the *NetBackup ™ Security and Encryption Guide*.

Responsive updates in Web UI for malware scan operations

In this release of NetBackup 11.1, improvements have been made to the Web UI to provide more responsive and detailed updates for Malware Scan jobs in the Activity monitor.

Previously, users reported limited visibility into scan progress, delayed status updates, and discrepancies between the Activity monitor and the malware detection screen. For more information, refer to the *NetBackup ™ Security and Encryption Guide*.

Abort malware scan on infection detection

NetBackup 11.1 now allows malware scans to abort immediately upon detecting an infection. The scan status updates to **Infected – Malware scan aborted**, with logs, notifications, and audit events. Users can view infected files, export them, and rescan the image. This provides faster threat visibility and saves time during recovery. For more information, refer to the *NetBackup™ Security and Encryption Guide*.

Multi-Account support in single provider plugin

Starting with NetBackup 11.1, assets across multiple cross-accounts can be protected using a single provider configuration created from the source account. This eliminates the need for multiple agent services—one for each AWS account in the NetBackup Snapshot Manager deployment—reducing unnecessary resource consumption and simplifying management. To use this feature, both the NetBackup Snapshot Manager and the NetBackup Primary Server must be upgraded to version 11.1.

Note: You cannot modify the configuration of an existing cross-account setup that is already protected using a different cross-account configuration.

For more information, refer to the *NetBackup™ Snapshot Manager Install and Upgrade Guide*.

Enhanced Cloud VM backup performance with multi-stream (parallel read) support

NetBackup 11.1 introduces multi-stream or parallel read support for Cloud VM backups, significantly improving performance for large virtual machines. With this enhancement, each virtual disk is backed up through an individual, parallel job, allowing multiple disks to be read and transferred simultaneously. All disk-level jobs

are managed under a single parent job and run independently, ensuring faster backup completion and greater resiliency—if one disk job fails, it can be retried separately without affecting other running jobs for the same VM.

With NetBackup 11.1, multi-stream Cloud VM protection is enabled by default. If the NetBackup primary server is upgraded and Cloud VM protection was previously configured, the Media Servers and NetBackup Snapshot Manager must also be upgraded to ensure compatibility.

For more information, refer to the *NetBackup Snapshot Manager for Cloud Install and Upgrade Guide*.

Cloud parallel stream job hierarchy for Cloud VM backups

With this release of NetBackup 11.1, a new parallel stream job hierarchy has been introduced to improve the efficiency and reliability of Cloud VM backups. When parallel read is enabled, each VM disk is backed up through its own stream, and a consolidated anchor stream manages the final synthesis of all disk data. This enhancement delivers faster backup performance, better job visibility, and more efficient handling of retries for multi-disk Cloud VMs.

With NetBackup 11.1, multi-stream Cloud VM protection is enabled by default. If the NetBackup primary server is upgraded and Cloud VM protection was previously configured, the Media Servers and NetBackup Snapshot Manager must also be upgraded to ensure compatibility.

For more information, refer to the *NetBackup Snapshot Manager for Cloud Install and Upgrade Guide*.

Cloud Scale document change, enhancements and deployment updates

In this release of NetBackup 11.1, Cloud Scale Technology includes changes related to document name change, enhancements and deployment updates.

For more information, refer to *Cohesity Cloud Scale Technology Manual Deployment Guide for Kubernetes Clusters*.

Documentation changes

With this release, the *NetBackup™ Deployment Guide for Kubernetes Clusters* has been renamed to *Cohesity Cloud Scale Technology Manual Deployment Guide for Kubernetes Clusters*.

Simplified Cloud Scale deployment and upgrade

This release simplifies Cloud Scale deployment and upgrades with a new `kubectl` plugin that automates and minimizes deployment steps, executing only the required upgrade actions. Additionally, multiple Helm charts have been consolidated into a smaller set, enabling Helm-based deployments and improving overall efficiency and maintainability.

NetBackup Database Manager as a StatefulSet in Cloud Scale

In Cloud Scale technology, the NetBackup Database Manager (BPDBM) is implemented as a StatefulSet deployed by the NetBackup operator. BPDBM capabilities, including catalog management and interfaces to policy, schedule, image, and media databases, are decoupled from the primary server and run in a separate Kubernetes service.

The BPDBM service relies on web services and consists of a single BPDBM pod, with all requests from other NetBackup components routed to this pod.

Enhanced Cloud Scale log collection performance

The Cloud Scale log collection system has been optimized for better performance by introducing compression to reduce network traffic and increasing parallel streaming to improve overall throughput.

Support for cloud key management service (KMS)

Along with NetBackup KMS and external KMS, NetBackup now supports cloud KMS to manage data-at-rest encryption keys.

The following cloud providers are supported for cloud KMS configuration in NetBackup:

- Amazon Web Services (AWS)
- Google Cloud Platform (GCP)
- Microsoft Azure

Backup images that are stored on MSDP storage servers can be encrypted using keys that are maintained in the respective cloud KMS server. NetBackup authenticates with the cloud KMS server using credentials that are configured in the NetBackup Credential Management System.

Optionally, you can configure an HTTP or HTTPS proxy server to communicate with cloud KMS. Proxy server credentials are managed through the NetBackup Credential Management System using the NetBackup web UI.

For more information, refer to the *NetBackup Security and Encryption Guide*.

Configuration of rotation for external CA-issued certificates

Rotation of external CA-issued (ECA) certificates can now be configured using the NetBackup web UI and APIs. A security administrator or a user with the required RBAC permissions can configure rotation of external CA-issued certificates for BYO, Flex (including WORM containers),NetBackup Appliances, NetBackup Snapshot Manager hosts, and clustered primary server setups.

ECA-issued certificates rotation is not supported on Cloud Scale and NetBackup Flex Scale.

For more information, refer to the *NetBackup Security and Encryption Guide*.

Support for network access control

The network access control option provides an additional security layer that restricts access to the NetBackup web APIs based on IP addresses. This option ensures that only trusted networks can interact with the NetBackup web APIs. By enabling this option with the NetBackup web UI or API, you can specify IP addresses or IP address ranges that can or cannot access web APIs.

For more information, refer to the *NetBackup Security and Encryption Guide*.

Freeze mode in NetBackup

In certain scenarios, you can enable freeze mode to prevent users from making changes to NetBackup for security reasons. In freeze mode, you cannot change NetBackup configurations and cannot use certain functionality based on the freeze mode options that are configured.

It is recommended that organizations identify scenarios (for example, malware attack) when they need to enable freeze mode, beforehand.

For more information, refer to the *NetBackup Security and Encryption Guide*.

Support for YARA scanning

NetBackup now supports YARA scanning for malware attacks.

YARA stands for 'Yet Another Ridiculous Acronym'.

YARA scanner is a tool that uses YARA rules to find and classify malware and other malicious artifacts within files or memory. YARA allows users to define textual or binary patterns to create rules that identify specific malware families or types of threats.

For more information, refer to the *NetBackup Security and Encryption Guide*.

Support for STIG compliance

Starting with 11.1, NetBackup supports Security Technical Implementation Guides (STIG) compliance through RPM verification of packaged files.

Selective Virtual Machine Restore for Kubernetes Workloads

Cohesity now supports selective restore of VirtualMachine resources within Kubernetes workloads, providing enhanced control and precision during recovery operations.

Previously, restoring the VirtualMachine resource kind resulted in all backed-up virtual machines within the selected namespace being restored, regardless of actual recovery needs. This behavior posed challenges in large-scale environments or scenarios requiring partial recovery.

With this update, administrators can now select specific virtual machines to restore from snapshots or backups, streamlining recovery workflows and minimizing unnecessary resource restoration.

For more information and process, see *NetBackup for Kubernetes Administrator's Guide > Recovering Kubernetes assets > Restore virtaul machines from Snapshot or backups* section.

Tape Media Preview for Restores in Cohesity with NetBackup Web UI

Cohesity now supports a preview option that allows users to view the list of tapes required for a restore operation.

In the NetBackup Web UI, the Recovery tab has been enhanced with a new **Preview Media** button. This feature helps users identify the exact tape media needed before initiating a restore, improving planning and reducing restore time.

For more information, see *NetBackup Web UI Administrator's Guide > Configuring backups > Performing restores > Performing restore from the NBU web UI > Restoring files and directories of tape media* section.

New Policy Type for RHV and OLVM Workloads in NetBackup Web UI

The NetBackup Web UI now supports a dedicated policy type for managing backup and recovery of Red Hat Virtualization (RHV) and Oracle Linux Virtualization Manager (OLVM) workloads.

This enhancement enables streamlined policy creation, VM selection, host assignment, and recovery work flows.

Key features are:

- Policy creation
- VM selection
- Host assignment
- Policy actions
- Activity monitor
- Recovery workflow

For more information, see NetBackup Web UI Administrative Guide

Cross-Hypervisor Restore from VMware to Nutanix

NetBackup now supports restoring VMware virtual machines (VMs) directly to Nutanix AHV, enabling seamless migration of VMware backups to Nutanix environments.

For detailed steps, prerequisite, and supported configuration, refer *NetBackup Vmware administrative guide > VM recovery > Cross-Hypervisor restore from VMware to Nutanix* section.

pgBackRest Support for PostgreSQL Backups

NetBackup now supports backups using the pgBackRest utility—an open-source tool that offers enhanced capabilities compared to the traditional `pg_basebackup` utility.

Key Benefits:

- Creates physical backups with advanced features such as compression, encryption, and parallel processing.
- Supports initial database copy for streaming replication using an existing backup.
- Enables standby rebuilds using the delta restore option.

For detailed steps and configuration guidance, refer to the *NetBackup for PostgreSQL Administrator's Guide: Protecting PostgreSQL Instances and Databases > Protect PostgreSQL Instances and Database* section.

Support for Percona `XtraBackup` Utility

NetBackup now supports backups using the Percona `XtraBackup` utility. `XtraBackup` is an open-source hot backup tool for MySQL-based servers, including InnoDB and XtraDB databases. It enables non-blocking backups, ensuring that the database remains fully available during maintenance windows.

This enhancement is designed to support both high-throughput production environments and low-transaction-volume servers without impacting performance.

For detailed instructions, refer to the *NetBackup for MySQL Administrator's Guide under Protecting MySQL Instances and Databases*.

SharePoint Recovery Support in Cohesity

NetBackup now supports recovery for Microsoft SharePoint (on-premises) environments, enabling both granular and database-level restore operations.

Key capabilities:

- Granular Recovery
- Database-level recovery
- Flexible restore options

For more information, see for *NetBackupMicrosoft SharePoint Server Administrator's Guide > Performing recovery using NetBackup Web UI* section

Enhanced WebSocket Server Credential Security with JWT Authentication

To strengthen the security of real-time communications, NetBackup now supports JSON Web Token (JWT) authentication for configuring client credentials on WebSocket servers.

This update helps mitigate risks such as unauthorized access, session hijacking, and data leakage.

For more information, see *NetBackup Web UI Administrator's Guide > Configuring Hosts > Managing Credentials for Workloads and Systems that NetBackup Accesses > Add a Credential for WebSocket Server* section.

New Reporting Enhancements in NetBackup Web UI

The NetBackup Web UI now includes expanded reporting capabilities for Tape, Disk, and Vault operations.

These enhancements introduce detailed reports covering:

- Backup Status: Overview of completed, failed, and in-progress backups.
- Client Backup Summaries: Per-client backup activity and success rates.
- Images on Media: Inventory of backup images stored across media types.

  Note: The **Path** parameter in the **Images on Media** report does not function as expected. While users can specify the parameter during report generation, it does not affect the report output. The report will still be generated successfully, but the specified path will not be considered in the filtering process.

- Media Logs: Historical logs for media usage and lifecycle events.

For detailed instructions and report navigation, refer to the *NetBackup Web UI Administrative Guide under Detection and Reporting > Reports*.

Vault Management Enhancements in NetBackup Web UI

The NetBackup Web UI now supports comprehensive Vault Management capabilities, eliminating the need for command-line operations and streamlining tape-based backup workflows.

Key Capabilities:

- Vault Creation & Configuration: Define and manage vaults directly from the Web UI.
- Profile Management: Create, edit, and assign vault profiles for automated tape handling.
- Robotic Tape Library Integration: Manage robots and associated media resources through an intuitive interface.
- Reporting & Monitoring: Access vault-related reports and status dashboards for improved visibility.

For more information, see *NetBackup Web UI Vault Administrator's Guide*

Storage Unit Groups Overview

NetBackup allows you to organize multiple storage units into a single storage unit group, enabling simplified policy management and improved backup flexibility. Instead of assigning individual storage units to a backup policy, you can reference a storage unit group, which acts as a logical container.

You can also define the execution order for storage units within a group, allowing precise control over how backup jobs are distributed and prioritized.

For detailed configuration steps, refer to the *NetBackup Web UI Administrator Guide* > *Configuring Storage* > *Storage Unit Groups* section.

Cross-Domain Backup Replication Support

NetBackup now supports creating a secondary copy of a backup image specifically for replication to a NetBackup storage device in a different domain.

This enhancement enables more flexible and resilient data protection across environments. You can configure replication targets on the storage server and initiate the creation of a replicated copy for any specified backup.

For detailed steps and configuration guidance, refer to the *NetBackup Web UI Admin Guide: Configuring Backups* > *Managing Backups* > *Replicate Copy of Backup Image to Target NetBackup Domain*

Storage server credentials

NetBackup now supports editing storage server credentials directly. If the credentials for a connected remote device change, you can update them within the storage server configuration to ensure uninterrupted communication.

For detailed procedure, see *NetBackup Web UI Administrator Guide* > *Configuring disk storage* > *Edit storage server credentials* section.

Change in the NetBackup default path - application folder and setup logs

The default application folder path for NetBackup has changed from `C:\Program Files\Veritas` to `C:\Program Files\Cohesity NetBackup` and remains customizable. Upgrades are not affected; the existing application folder of NetBackup is retained during upgrades.

The path for the setup logs has changed from `%ALLUSERSPROFILE%\Veritas\NetBackup\InstallLogs` to `%ALLUSERSPROFILE%\Cohesity\NetBackup\InstallLogs\` for install and upgrades.

Support for protecting vTPM enabled VMs with AHV backups

A Trusted Platform Module (TPM) is used to manage cryptographic keys for security services like encryption and hardware (and software) integrity protection. AHV Virtual Trusted Platform Module (vTPM) is software-based emulation of the TPM 2.0 specification that works as a virtual device.

Nutanix supports the following:

- Backup of vTPM enabled VMs for AOS 6.8.
- Backup and restore with Prism Central APIs.
- Virtual Trusted Platform Module (vTPM) only for machine type - Q35.

vTPM information is retrieved via Prism Central Get APIs.

Chapter 3

Operational notes

This chapter includes the following topics:

About NetBackup 11.1 operational notes

NetBackup operational notes describe and explain important aspects of various NetBackup operations that may not be documented elsewhere in the NetBackup documentation set or on the Cohesity Support website. The operational notes can be found in the *NetBackup Release Notes* for each version of NetBackup. Typical operational notes include known issues, compatibility notes, and additional information about installation and upgrade.

Operational notes are often added or updated after a version of NetBackup has been released. As a result, the online versions of the *NetBackup Release Notes* or other NetBackup documents may have been updated post-release. You can access the most up-to-date version of the documentation set for a given release of NetBackup at the following location on the Cohesity Support website:

NetBackup Release Notes, Administration, Installation, Troubleshooting, Getting Started, and Solutions Guides

NetBackup installation and upgrade operational notes

NetBackup can be installed and upgraded in heterogeneous environments using a variety of methods. NetBackup is also compatible with a mixture of servers and clients that are at various release levels in the same environment. This topic contains some of the operational notes and known issues that are associated with the installation, upgrade, and software packaging of NetBackup 11.1.

If NetBackup 11.1 upgrade fails on Windows, revert to previous log folder structure

The legacy log folder structure for non-root or non-admin invoked process logs has changed. The new folder structure is created under the process log directory name. For more information, refer to the *File name format for legacy logging* section from the NetBackup Logging Reference Guide.

For Windows, if the upgrade to NetBackup 11.1 fails and rollback occurs, run the following command to continue working on an earlier NetBackup version:

```
mklogdir.bat -fixFolderPerm
```

For more information, refer to the `mklogdir` command from the NetBackup Commands Reference Guide.

Native installation requirements

In NetBackup 8.2, a change was made to initial installs such that the answer file is now required. This change may have some negative effect on users who want to use the native packages to create VM templates or otherwise install the NetBackup packages without configuring the product. On Linux, one possible way of obtaining the previous behavior is with the `-noscripts` option of the RPM Package Manager. Providing this option when installing the `VRTSnbpck` package avoids the configuration steps. This option does not need to be provided when you install other packages. The answer file must still exist, but the only value that must be provided is the role of the machine, either a client or a media server. For example:

```
echo "MACHINE_ROLE=CLIENT" > /tmp/NBInstallAnswer.conf
rpm -U --noscripts VRTSnbpck.rpm
rpm -U VRTSpbx.rpm VRTSnbclt.rpm VRTSpddea.rpm
```

NetBackup servers must use a host name that is compliant with RFC 1123 and RFC 952

Starting with NetBackup 8.0, all NetBackup server names must use a host name that is complaint with RFC 1123 ("Requirements for Internet Hosts - Application and Support") and RFC 952 ("DOD Internet Host Table Specification") standards. These standards include the supported and unsupported characters that can be used in a host name. For example, the underscore character (_) is not a supported character for host names.

More information is available about these standards and about this issue:

RFC 952

RFC 1123

http://www.veritas.com/docs/000125019

These standards should be applied to all computing hosts, including all NetBackup hosts. To accommodate legacy environments and functionality, features of NetBackup that were implemented before 2010 continue to allow some non-compliant characters. But newer features, as well as more recently integrated 3rd-party components, are not tested with nor expected to be compatible with host names that do not adhere to the industry standards.

In some situations, it may be possible to configure name services with a network hostname alias that is standards-compliant, and then use the alias when you configure NetBackup. But using host names that are standards-compliant is the only way to ensure compatibility with all features.

About support for HP-UX Itanium vPars SRP containers

Hewlett-Packard Enterprise (HPE) introduced a new type of container for HP-UX Virtual Partitions (vPars)-enabled servers called Secure Resource Partitions (SRPs). As part of the security changes introduced by SRPs, native HP-UX install tools such as `swinstall` and `swremove` are disabled from being run within the SRP environment. The `swinstall` and `swremove` tools can only be called from the global host running vPars, which then pushes the native packages to the SRP containers.

NetBackup only supports installing into the global view. NetBackup installation fails if you try to install into an HPE Itanium SRP container (private file system, shared file system, or workload).

Change in the default path for NetBackup installation

Starting with NetBackup 11.1, the default path for NetBackup installation is as follows:

`C:\Program Files\Cohesity NetBackup\NetBackup`

The default installation path for NetBackup 11.0.0.1 and earlier versions is as follows:

`C:\Program Files\Veritas`

In a cluster, you must ensure that installation paths for all cluster nodes are the same. In case of an upgrade from NetBackup 11.0.0.1 or earlier to NetBackup 11.1, you must check the default installation path of the older cluster nodes and use the same path for the new node that you want to add.

For example, if old cluster nodes have the default installation path, you must use `C:\Program Files\Veritas` as installation path for the new node after the upgrade.

NetBackup administration interface operational notes

The NetBackup administrator has a choice of several interfaces to use to administer NetBackup. All of the interfaces have similar capabilities. This topic contains some of the operational notes and known issues that are associated with these interfaces in NetBackup 11.1.

For more information about the specific NetBackup administration interfaces, refer to the *NetBackup Web UI Administrator's Guide* or the *NetBackup Administrator's Guide, Volume I*.

For information about how to install the interfaces, refer to the *NetBackup Installation Guide*. For information about platform compatibility with the administration consoles, refer to the various NetBackup compatibility lists available on the Cohesity Support website.

See “About NetBackup compatibility lists and information” on page 50.

Intermittent issues with X forwarding of NetBackup Administration Console

Intermittent issues may occur with X forwarding of the NetBackup Administration Console. This behavior only occurs when you use X forwarding. This issue does not occur at the local console. The issue is most commonly seen on Linux servers, but not exclusively. The issue generally occurs when older versions of X viewers are used, such as Xming and XBrowser.

The use of MobaXterm seems to minimize or eliminate the issue. If you experience issues with X forwarding, consider upgrading your X viewer and retrying the operation or access the server from the local console.

NetBackup Administration Console fails in Simplified Chinese UTF-8 locale on Solaris SPARC 64-bit systems with Solaris 10 Update 2 or later

The NetBackup Administration Console may encounter a core dump issue when the Simplified Chinese UTF-8 locale is used on a Solaris SPARC 64-bit system with Solaris 10 Update 2 and later installed. For more information, refer to Bug ID 6901233 at the following URL on the Oracle Technology Network website:

http://bugs.sun.com/bugdatabase/view_bug.do?bug_id=6901233

If you encounter this issue, apply the appropriate Solaris patches or upgrades that Oracle provides for this issue.

NetBackup Bare Metal Restore operational notes

NetBackup Bare Metal Restore (BMR) automates and streamlines the server recovery process, making it unnecessary to reinstall operating systems or configure hardware manually. This topic contains some of the operational notes and known issues that are associated with BMR in NetBackup 11.1.

After PIT restore, "The host ID does not exist" error appears

After a point in time (PIT) restore operation (which may include either a **Full File System** restore or a **BMR restore**), the error message **The host ID does not exist** appears.

In this scenario, a full backup is taken when a SERVICE_USER as root/administrator account is configured. This account takes the backup of the NetBackup installed binaries with root/administrator ownership. Before a restore, SERVICE_USER is configured with an account other than root/administrator, and then an incremental backup is taken where the service user is backed up as part of `bp.conf`. In a PIT restore operation with the incremental backup, the SERVICE_USER entry gets restored. However, the binaries are restored in the root account ownership.

Workaround:

After changing the service user, you must take a full backup, whether it is a **MS-Windows\Standard Policy** for File System or **BMR** policy configuration.

AIX BMR Shared Resource Tree (SRT) creation fails in NetBackup 11.1

The following error message appears on the command-line console while creating the Shared Resource Tree (SRT):

```
lslpp: Fileset libc++.rte not installed.

ERROR:   Could not resolve major version level from [].

ERROR: Detected an attempt to install incorrect platform and/or
 operating system and version client binaries on
 falcna12c3.abcus.abc.com.
Required AIX OS libc++.rte runtime is not present.
 File /tmp/install_trace.xxxxxxxx contains a trace of this
 install. That file can be deleted after you are sure the
 install was successful.
Do you want to retry install of Veritas NetBackup Client? (y/n) [y] :
```

During AIX BMR SRT creation, when you install NetBackup 11.1 client, you must have libc++ runtime version 16.1.0.7 or later inside the SRT. If a libc++ runtime version is not present in the AIX BMR SRT when you create it, then the NetBackup 11.1 client installation fails, which leads to the SRT creation failure.

Workaround:

See this technical article for workaround details:

https://www.veritas.com/support/en_US/article.100060647

NetBackup services may not start automatically after BMR restore on a Linux client

NetBackup services may not start automatically after a Bare Metal Restore (BMR) restore operation is performed on the Linux client.

The NetBackup services may run for a while after a BMR restore operation, and the BMR post-restore scripts may complete successfully. Later, however, NetBackup services may stop.

This issue happens only if a service user is different than the root user that is defined on the NetBackup Linux client.

Workaround:

Start the NetBackup services manually on the Linux client. To start the services, run the following command:

```
/usr/openv/netbackup/bin/bp.start_all
```

NetBackup Bare Metal Restore on AWS hangs when restoring a Windows 2025 client

On AWS, Windows 2025 uses NVMe disks by default. Bare Metal Restore does not support NVMe disks.

Workaround:

No workaround for this issue.

NetBackup Cloud Object Store Workload operational notes

This topic contains some of the operational notes and known issues that are associated with the NetBackup Cloud Object Store Workload in version 11.1.

Full backup after upgrade to NetBackup 11.1

Amazon S3 is discontinuing support for the Display name parameter in the Owner object for some APIs and regions. This change may affect how NetBackup identifies backups. If the Display name parameter is missed from the previous backups, NetBackup treats the backup as new instead of incremental.

Workaround:

There is no workaround. After upgrade, NetBackup performs a full backup initially. The subsequent backups are incremental backups, if configured in the policy.

Note the following:

- Plan for this behavior when you upgrade from an earlier NetBackup versions.
- Review backup schedules and storage capacity to accommodate a potential full backup post-upgrade.

Supported version of RHEL media server as backup host

The supported RHEL media server version as backup host for the Cloud Object Store workload in NetBackup 11.1 is RHEL 9.5 or earlier.

Auto Image Replication (AIR) from NetBackup version 11.1 requires NetBackup 10.2 or later

You cannot run Auto Image Replication (AIR) from a computer with NetBackup version 11.1 to a target computer with a NetBackup version that is earlier than version 10.2.

Workaround:

None. Upgrade the target computer to NetBackup version 10.2 or later.

Backup jobs become unresponsive and consume significant space on the temporary staging location.

NetBackup Cloud object store data protection feature uses the `ListObjects S3` API to iterate over the list of objects to further read and back up the objects in a bucket. The `ListObjects S3` API returns up to 1000 objects per request in lexicographical order, based on their key names and the NextContinuationToken. This NextContinuationToken is used for pagination. For example, for a `ListObjects S3` API call, to get the next set of 1000 objects and a new NextContinuationToken is used to get the subsequent page.

For certain Cloud object store providers, like Hitachi, the NextContinuationToken does not work correctly if the object names contain certain special characters, potentially hinders backup performance.

This behavior disrupts the `cos_sqllite` database that NetBackup uses in the temporary staging area. This database stores the object list for a backup job that is in progress. Because of this disruption, the `cos_sqllite` database drastically grows in size, filling up the disk space in the temporary staging area. This leads the NetBackup jobs to slow down and eventually fail.

Workaround:

1. Reconfigure the NextContinuationToken in the `ListObjects S3` API calls to return the proper value for each batch.
2. Cancel the existing backup job and retry backup.

NetBackup NAS operational notes

NetBackup Snapshot Manager and NDMP V4 snapshot extension can make snapshots of client data on a NAS host. A NAS snapshot is a point-it-time disk image. You can retain the Snapshots on the disk for any duration. Using the Instant Recovery feature in NetBackup, you can efficiently restore the data from the disk. Broadly, in NetBackup, snapshot-based data protection for NAS can be performed using NAS-Data-Protection policy and NDMP policy. This topic contains some of the operational notes and known issues that are associated with NetBackup NAS in NetBackup 11.1.

Parent directories in the path of a file may not be present in an NDMP incremental image

An issue can occur if a NetBackup Network Data Management Protocol (NDMP) backup policy is configured with the directive `set type=tar` in the backup selection. Parent directories in the path of a file that an incremental NDMP backup saves may not be present in the backup image. For more information on this issue, refer to the following tech note on the Cohesity Support website:

http://www.veritas.com/docs/000095049

NetBackup Cloud workload operational notes

This topic contains some of the operational notes and known issues that are associated with the NetBackup Cloud workload in version 11.1.

VMs and other OCI assets with CMK-encrypted disks are marked as deleted in NetBackup UI.

If the KMS service at the OCI provider is down, the VMs and other assets with CMK-encrypted disks are marked as deleted in NetBackup UI. Once the KMS service is restored, the deleted status is cleared after a successful plug-in level discovery, and the assets or VMs become eligible for backup. No further action is required.

Workaround:

Ensure that the KMS service at the OCI provider-end is running.

NetBackup internationalization and localization operational notes

This topic contains some of the operational notes and known issues that are associated with internationalization, localization, and non-English locales in NetBackup 11.1.

Support for localized environments in database and application agents

Non-ASCII characters are supported in the following fields for NetBackup database and application agents.

- Oracle:

Datafile path, Tablespace name, TNS path

- DB2:
  Datafile path, Tablespace name
- SAP:
  English SAP runs on localized OS. (No specific SAP fields are localized.)
- Exchange:
  Mailboxes, Mails, Attachment names and contents, Public folders, Contacts, Calendar, Folders and Database paths
- SharePoint:
  Site Collection Names, Libraries and lists within the site collection
- Lotus Notes:
  Emails data /.nsf files
- Enterprise Vault (EV) agent:
  Vault store, Partitions, Data
- VMWare:
  Username, Password, VM display name, DataCenter, Folder, Datastore, Resource pool, VApp, Network name, VM disk path

Certain NetBackup user-defined strings must not contain non-US ASCII characters

The following NetBackup user-defined strings must not contain non-US ASCII characters:

- Host name (primary server, media server, Enterprise Media Manager (EMM) server, volume database host, media host, client, instance group)
- Policy name
- Policy KEYWORD (Windows only)
- Backup, Archive, and Restore KEYWORD (Windows only)
- Storage unit name
- Storage unit disk pathname (Windows only)
- Robot name
- Device name
- Schedule name
- Media ID

- Volume group name
- Volume pool name
- Media description
- Vault policy names
- Vault report names
- BMR Shared Resource Tree (SRT) name
- Token name
- Storage lifecycle policy (SLP) names

FIPS compliance operational notes

When the Federal Information Processing Standards (FIPS) option is enabled on NetBackup clustered primary server with MSCS cluster, the NetBackup Authorization service fails to start that results in NetBackup server role being offline.

Workaround

To workaround this issue, do one of the following:

- Remove the NetBackup Authorization service as an MSCS managed service, from the cluster manager.
- Remove the NetBackup Authorization service. Run the following commands:
  - *Install_Path*\NetBackup\bin\bpclusterutil -disableSvc nbazd
  - *Install_Path*\NetBackup\bin\bpclusterutil -deleteSvc nbazd

---

Note: If NetBackup Accesss Control (NBAC) is enabled, FIPS mode cannot be enabled and is not supported.

Appendix A

About SORT for NetBackup Users

This appendix includes the following topics:

About Cohesity Services and Operations Readiness Tools

Cohesity Services and Operations Readiness Tools (SORT) is a robust set of standalone and web-based tools that support enterprise products. For NetBackup, SORT provides the ability to collect, analyze, and report on host configurations across UNIX/Linux or Windows environments. This data is invaluable when you want to assess if your systems are ready for an initial NetBackup installation or for an upgrade.

Access SORT from the following webpage:

https://sort.veritas.com/netbackup

Once you get to the SORT page, more information is available as follows:

- **Installation and Upgrade Checklist**
  Use this tool to create a checklist to see if your system is ready for a NetBackup installation or an upgrade. This report contains all the software and the hardware compatibility information specific to the information provided. The report also includes product installation or upgrade instructions, as well as links to other references.
- **Hot fix and EEB Release Auditor**
  Use this tool to find out whether a release that you plan to install contains the hot fixes that you need.

- **Custom Reports**
  Use this tool to get recommendations for your system.
- **NetBackup Future Platform and Feature Plans**
  Use this tool to determine what items you can expect to see replaced with newer and improved functionality. The tool also provides insight about what items you can expect to see discontinued without replacement. Some of these items include certain NetBackup features, functionality, 3rd-party product integration, other product integration, applications, databases, and the OS platforms.

Help for the SORT tools is available. Click **Help** in the upper right corner of the SORT home page. You have the option to:

- Page through the contents of the help similar to a book
- Look for topics in the index
- Search the help with the search option

Appendix B

NetBackup installation requirements

This appendix includes the following topics:

About NetBackup installation requirements

This release of NetBackup may contain changes to the minimum system requirements and procedures that are required for installation. These changes affect the minimum system requirements for both Windows and UNIX platforms. Much of the installation instructional information in the *NetBackup Release Notes* is provided for convenience. Detailed installation instructions are found in the *NetBackup Installation Guide* and the *NetBackup Upgrade Guide*.

See "NetBackup installation and upgrade operational notes" on page 32.

- Before you upgrade the NetBackup server software, you must back up your NetBackup catalogs and verify that the catalog backup was successful.
- Before upgrading to NetBackup 11.1, you must ensure that you have the free disk space that is twice the size of the NetBackup relational database. That means for default installations of the primary server, you are required to have that amount of free space on the file system containing the `/usr/openv/db/data` (UNIX) or `<install_path>\Veritas\NetBackupDB\data` (Windows) directories. If you have changed the location of some of the files in either of these directories, free space is required in those locations equal to or greater than the size of the

files in those locations. Refer to the *NetBackup Administrator's Guide, Volume I* for more information about storing NBDB database files in alternate locations.

Note: This free disk space requirement assumes that you have already performed the best practice of completing a successful catalog backup before you begin the upgrade.

- Primary and media servers must have a minimum soft limit of 8000 file descriptors per process for NetBackup to run correctly.
  For more information about the effects of an insufficient number of file descriptors, refer to the following articles on the Cohesity Support website:
  http://www.veritas.com/docs/000013512
- NetBackup primary and media servers exchange server version information at startup, and every 24 hours. This exchange occurs automatically. During startup after an upgrade, the upgraded media server uses the `vmd` service to push its version information to all of the servers that are listed in its server list.
- Cohesity recommends that you have the primary server services up and available during a media server upgrade.
- All compressed files are compressed using gzip. The installation of these files requires gunzip and gzip, so make sure that they are installed on the computer before you attempt to install NetBackup. For all UNIX platforms except HP-UX, the binaries are expected to be in `/bin` or `/usr/bin` and that directory is a part of the root user's `PATH` variable. On HP-UX systems, the `gzip` and `gunzip` commands are expected to be in `/usr/contrib/bin`. Installation scripts add that directory to the `PATH` variable. These commands must be present to have successful UNIX installations.

Required operating system patches and updates for NetBackup

NetBackup server and client installations are only supported on a defined set of operating systems (OSs) that are listed in the NetBackup Compatibility Lists for All Versions. Most OS vendors provide patches, updates, and service packs (SPs) for their products. The best practice of NetBackup Quality Engineering is to test with the latest SP or update level of the OS when a platform is tested. Therefore, NetBackup is supported on all vendor GA updates (n.1, n.2, and so on) or SPs (SP1, SP2, and so on). However, if a known compatibility issue exists on a specific SP or updated OS level, this information is identified in the compatibility lists. If no

such compatibility issues are noted, Cohesity recommends that you install the latest OS updates on your servers and clients before you install or upgrade NetBackup.

The most up-to-date required OS patch information for NetBackup 11.1 and other NetBackup releases can be found on the Cohesity Services and Operational Readiness Tools (SORT) website and in the NetBackup Compatibility Lists for All Versions. The compatibility lists include information about the minimum OS level that is required to support a minimum NetBackup version in the latest major release line. In some cases, new releases of NetBackup may require specific vendor OS updates or patches.

See "About NetBackup compatibility lists and information" on page 50.

See "About Cohesity Services and Operations Readiness Tools" on page 42.

NetBackup 11.1 binary sizes

The following table contains the approximate binary sizes of the NetBackup 11.1 primary server, media server, and client software for the various supported operating systems. These binary sizes indicate the amount of disk space occupied by the product after an initial installation. Note that for the sizes listed in the table, 1 MB equals 1024 KB.

Note: The table lists only the supported operating systems. For up-to-date information about the specific operating system versions that NetBackup currently supports, check the Installation and Upgrade Checklist on the Services and Operations Readiness Tools (SORT) website, or the NetBackup Compatibility List for all Versions.

Table B-1 NetBackup binary sizes for compatible platforms

OS	CPU Architecture	64-bit client	64-bit server	Notes
AIX	64-bit client	1499 MB	No longer supported	
Alma Linux		2095 MB		
Amazon Linux		2095 MB		
BC-Linux		2095 MB		
Canonical Ubuntu	x86-64	2095 MB		

Table B-1 NetBackup binary sizes for compatible platforms *(continued)*

OS	CPU Architecture	64-bit client	64-bit server	Notes
CentOS	x86-64	2095 MB	7493 MB	
Debian GNU/Linux	x86-64	2095 MB		
Kylin Linux Advanced Server 10.0		2095 MB		
NeoKylin Linux Advanced Server		2095 MB		
Oracle Linux	x86-64	2095 MB	7493 MB	
Red Hat Enterprise Linux Server	POWER 8/9 client	504 MB		
Red Hat Enterprise Linux Server	x86-64	2095 MB	7493 MB	
Red Hat Enterprise Linux Server	z/Architecture	964 MB	No longer supported	Media server or client compatibility only.
Rocky Linux client		2095 MB		
Solaris	SPARC	1084 MB	No longer supported	
Solaris	x86-64	1042 MB	No longer supported	
SUSE Linux Enterprise Server	POWER 8/9 client	504 MB		
SUSE Linux Enterprise Server	x86-64	1490 MB	6726 MB	

Table B-1 NetBackup binary sizes for compatible platforms *(continued)*

OS	CPU Architecture	64-bit client	64-bit server	Notes
SUSE Linux Enterprise Server	z/Architecture	483 MB	No longer supported	Media server or client compatibility only.
Windows	x86-64	1193 MB	4800 MB	Covers all compatible Windows x64 platforms.

Appendix C

NetBackup compatibility requirements

This appendix includes the following topics:

About compatibility between NetBackup versions

You can run mixed versions of NetBackup between primary servers, media servers, and clients. This back-level support lets you upgrade NetBackup one server at a time, which minimizes the effect on overall system performance.

NetBackup supports only certain combinations of servers and clients. In mixed version environments, certain computers must be the highest version. Specifically, the version order is: NetBackup Snapshot Manager computer, primary server, media server, and then clients. For example, the scenario that is shown is supported: 11.0 NetBackup Snapshot Manager > 10.2 primary server > 10.0 media server > 9.1.0.1 client.

All NetBackup versions are four digits long. The NetBackup 11.0 release is the 11.0.0.0 release. Likewise, the NetBackup 10.2 release is the NetBackup 10.2.0.0 release. For the purposes of supportability, the fourth digit is ignored. A 10.2 primary server supports a 10.2.0.1 media server. An example of what is not supported is a 10.2.0.1 primary server with a 11.0 media server.

The NetBackup catalog resides on the primary server. Therefore, the primary server is considered to be the client for a catalog backup. If your NetBackup configuration

includes a media server, it must use the same NetBackup version as the primary server to perform a catalog backup.

For complete information about compatibility between NetBackup versions, refer to the Cohesity SORT website.

Review the End of Support Life information available online.

About NetBackup compatibility lists and information

The *NetBackup Release Notes* document contains a great deal of the compatibility changes that are made between NetBackup versions. However, the most up-to-date compatibility information on platforms, peripherals, drives, and libraries can be found on the Cohesity Operations Readiness Tools (SORT) for NetBackup website.

See "About Cohesity Services and Operations Readiness Tools" on page 42.

For NetBackup, SORT provides an Installation and Upgrade Checklist report as well as the ability to collect, analyze, and report on host configurations across your environments. In addition, you can determine which release contains the hot fixes or EEBs that you may have installed in your environment. You can use this data to assess whether your systems are ready to install or upgrade to a given release.

NetBackup compatibility lists

In addition to SORT, Cohesity has made available a variety of compatibility lists to help customers quickly reference up-to-date compatibility information for NetBackup:

NetBackup Compatibility Lists for All Versions

Note: For information about which versions of NetBackup are compatible with each other, select a **Software Compatibility List (SCL)**, and then select **Compatibility Between NetBackup Versions** from within the SCL.

About NetBackup end-of-life notifications

Cohesity is committed to providing the best possible data protection experience for the widest variety of systems: platforms, operating systems, CPU architecture, databases, applications, and hardware. Cohesity continuously reviews NetBackup system support. This review ensures that the proper balance is made between maintaining support for existing versions of products, while also introducing new support for the following:

- General availability releases

- Latest versions of new software and hardware
- New NetBackup features and functionality

While Cohesity continually adds support for new features and systems, it may be necessary to improve, replace, or remove certain support in NetBackup. These support actions may affect older and lesser-used features and functionality. The affected features and functionality may include support for software, OS, databases, applications, hardware, and 3rd-party product integration. Other affected items may include the products that are no longer supported or nearing their end-of-support life with their manufacturer.

Cohesity provides advance notification to better help its customers to plan for upcoming changes to the support status of the various features in NetBackup. Cohesity intends to list older product functionality, features, systems, and the 3rd-party software products that are no longer supported in the next release of NetBackup. Cohesity makes these support listings available as soon as possible with a minimum of 6 months where feasible before major releases.

Using SORT

Advance notification of future platform and feature support including end-of-life (EOL) information is available through a widget on the Cohesity Services and Operations Readiness Tools (SORT) for NetBackup home page. The NetBackup Future Platform and Feature Plans widget on the SORT for NetBackup home page can be found directly at the following location:

https://sort.veritas.com/nbufutureplans

NetBackup end-of-support-life (EOSL) information is also available at the following location:

https://sort.veritas.com/eosl/show_matrix

See “About Cohesity Services and Operations Readiness Tools” on page 42.

About changes in platform compatibility

The NetBackup 11.1 release may contain changes in support for various systems. In addition to using SORT, you should make sure to review the *NetBackup Release Notes* document and the NetBackup compatibility lists before installing or upgrading NetBackup software.

See “About new enhancements and changes in NetBackup” on page 10.

http://www.netbackup.com/compatibility

Appendix D

Other NetBackup documentation and related documents

This appendix includes the following topics:

About related NetBackup documents

Cohesity releases various guides that relate to NetBackup software. Unless otherwise specified, the NetBackup documents can be downloaded in PDF format or viewed in HTML format from the NetBackup Documentation Landing Page.

Not all documents are published with each new release of NetBackup. In the guides, you may see references to other documents that were not published for NetBackup 11.1. In these cases, refer to the latest available version of the guide.

Note: Cohesity assumes no responsibility for the correct installation or use of PDF reader software.

All references to UNIX also apply to Linux platforms unless otherwise specified.
