Quest® NetVault® Backup Plug-in *for SAP HANA* 12.4, Revision 1

User's Guide

Legend

■ **WARNING: A WARNING icon indicates a potential for property damage, personal injury, or death.**

! **CAUTION: A CAUTION icon indicates potential damage to hardware or loss of data if instructions are not followed.**

i **IMPORTANT NOTE**, **NOTE**, **TIP**, **MOBILE**, or **VIDEO:** An information icon indicates supporting information.

Contents

Introducing NetVault Backup Plug-in *for SAP HANA*

- NetVault Backup Plug-in *for SAP HANA: at a glance*
- Target audience
- Recommended additional reading

NetVault Backup Plug-in *for SAP HANA*: at a glance

Quest® NetVault® Backup Plug-in *for SAP HANA* (Plug-in *for SAP HANA*) increases application availability by providing fast, online backup of your SAP HANA Database. The plug-in integrates with existing SAP HANA tools, such as SAP HANA Studio, SAP HANA cockpit, and SAP HANA HDBSQL, which let you run backups directly from SAP HANA tools. The plug-in supports features such as:

- Backups of the database components, including the tenant and the system database. The plug-in supports:
  - Full Backups
  - Incremental Backups
  - Differential Backups
  - Automatic Log Backups
- Restores of the backups, including:
  - Recovery to the most recent point in time
  - Recovery to a specific point in time
  - Recovery of data only
- Inquiries that let you search for specific information in a backup
- Deletion of backups
- Support for scaling up and scaling out

Target audience

Most operations used with the plug-in require SAP HANA administrator skills, including the initial configuration and defining an efficient backup-and-recovery strategy.

Recommended additional reading

The following documentation is also available:

- *Quest NetVault Backup Installation Guide*: This guide provides details on installing the NetVault Backup Server and Client software.

- *Quest NetVault Backup Administrator's Guide*: This guide explains how to use NetVault Backup and describes the functionality common to all plug-ins.

- *Quest NetVault Backup CLI Reference Guide*: This guide provides a description of the command-line utilities.

You can download these guides from https://support.quest.com/technical-documents.

Installing and removing the plug-in

Installation prerequisites

Before installing the Plug-in *for SAP HANA*, verify that the following software is installed and configured:

* **NetVault Backup Server or Client software**: At a minimum, the Client version of NetVault Backup software must be installed on the machine hosting the SAP HANA database. For an example of a suitable environment, see Reviewing the recommended configuration.

* **SAP HANA software**: This database software must be installed and properly configured on the machine serving as the SAP HANA Server.

* **Client added to the NetVault Backup Server for access**: If the machine that hosts the targeted SAP HANA database is not the NetVault Backup Server, this machine must be added to the NetVault Backup Server as a NetVault Backup Client. For more information, see the *Quest NetVault Backup Administrator's Guide*.

Reviewing the recommended configuration

While you can set up a single machine as both the NetVault Backup Server and the SAP HANA Server, that is, all software installation and configuration requirements are performed on a single machine, Quest recommends that these two entities exist on *separate* machines. The following table displays an ideal setup for use with the Plug-in *for SAP HANA*, including the software and configuration requirements to establish this type of environment.

Table 1. Recommended configuration
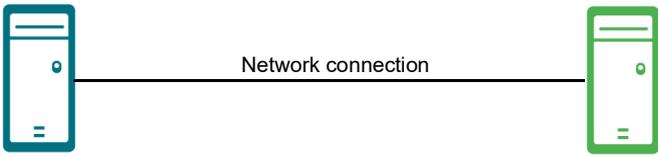
SAP HANA Server machine	NetVault Backup Server machine
Software installed/configuration	**Software installed/configuration**
• **SAP HANA software**	• **NetVault Backup Server software**
• **NetVault Backup Client software**	• **Plug-in** *for SAP HANA*
• **Plug-in** *for SAP HANA*	
• **SAP HANA Server added as a NetVault Backup Client**	

Installing or upgrading the plug-in

1 Access the **NetVault Configuration Wizard** or **Manage Clients** page.

- To access the **NetVault Configuration Wizard** page:

   a In the Navigation pane, click **Guided Configuration**.

   b On the **NetVault Configuration Wizard** page, click **Install Plugins**.

   c On the next page, select the applicable clients.

- To access the **Manage Clients** page:

   a In the Navigation pane, click **Manage Clients**.

   b On the **Manage Clients** page, select the machine that contains the SAP Backint database, and click **Manage**.

   c On the **View Client** page, click the **Install Plugin** button ( ).

2 Click **Choose Plug-in File**, navigate to the location of the **".npk"** installation file for the plug-in, for example on the installation CD or the directory to which the file was downloaded from the website.

Based on the OS in use, the path for this software may vary on the installation CD.

3 Select the file entitled **"hana-x-x-x-x.npk,"** where **xxxxx** represents the version number and platform, and click **Open**.

4 To begin installation, click **Next**.

After the plug-in is successfully installed, a message is displayed.

> **i** | **IMPORTANT:** The Plug-in *for SAP HANA must exist* on the NetVault Backup Server, regardless of the configuration in use. Therefore, if you are using a single machine configuration, installation is complete. If you are using the recommended Client/Server configuration, *repeat the installation process*, this time installing the plug-in on the NetVault Backup Server.
>
> The plug-in installation file depends the OS in use. The same installation file cannot be used for different operating systems. Therefore, if you are using the recommended configuration *and* the NetVault Backup Server and SAP HANA Server are each running a **different** OS, the proper installation files must be obtained and used; that is, from the plug-in installation CD or from the Quest website.

5 Install the license for Plug-in *for SAP HANA*.

6 After the plug-in is installed, on the NetVault Backup Server, locate and open the **"allowdupjobname.cfg"** file in a text editor.

This file is located in the **config** directory of your NetVault Backup installation directory.

7 Locate the **[plugins to allow duplicate job name]** section, and add **SapHana** under this section.

8 Save and close the "allowdupjobname.cfg" file.

9 Create a symbolic link for **hdbbackint**.

To do so:

a Open a PuTTY session to the SAP HANA Server, and log in using the **<SID>adm** user.

Do *not* use the root user to create a symbolic link.

b Use the change directory—`cd`—command to go to the **/usr/sap/<SID>/SYS/global/hdb/opt** directory.

c Run the following command to create the link:

```
ln -s <NetVaultBackupInstallDirectory>/bin/hdbbackint hdbbackint
```

10 Update the backup settings for backups of data, logs, and catalogs to use Backint.

You can use SAP HANA Studio or you can update the **"global.ini"** file to update these settings. For more information, see your SAP HANA Administration Guide.

11 If you are using a multiple-host SAP HANA environment, install the NetVault Backup Client software and the plug-in software on each additional host.

> **i** | **IMPORTANT:** Ensure that you use the same path for the NetVault Backup installation directory on each host so that creating a symbolic link from one host works for all other hosts in the environment.

12 Ensure that you use the same path for the NV installation directory on each host so that creating a symbolic link from one host works for all other hosts in the environment.

Removing the plug-in

1 In SAP HANA, reset the backup settings for backups of data, logs, and catalogs.

For more information, see your SAP HANA Administration Guide.

2 In the Navigation pane, click **Manage Clients**.

3 On the **Manage Clients** page, select the applicable client, and click **Manage**.

4 In the **Installed Software** table on the **View Client** page, select **Plug-in** *for SAP HANA*, and click the **Remove Plugin** button ( ).

5 In the **Confirm** dialog box, click **Remove**.

Configuring the plug-in

- Entering configuration information
- Creating the parameter file
- Updating the parameter file

Entering configuration information

The plug-in lets you specify name of the NetVault Backup Server that you have installed. You must also create a parameter file with the permissions of the SAP HANA Admin user.

1 In the Navigation Pane, click **Create Backup Job**, and click **Create New** next to the **Selections** list.

2 In the selection tree, open the applicable client node.

3 Click **SapHana**, and select **Configure** from the context menu.

4 For **Server Name**, enter the name of the NetVault Backup Server. This is the name of the NetVault Backup Server that has device control, which is used to process backups.

5 To save the settings, click **OK**.

Creating the parameter file

Previous releases of the Plug-in *for SAP HANA* included an optional parameter. Now to avoid issues with restoring when two databases on different servers have the same name, you must create the parameter file and assign it the permissions of the SAP HANA Admin user.

1 In the SAP HANA environment, create a parameter file and add the following entry in the parameter:

```
UniqueTagForDB=<Any String for DB unique for database and on netvault server>
```

2 Save the parameter file to the following location:

```
/usr/sap/<SID>/SYS/global/hdb/opt/init<SID<.utl
```

3 In the SAP HANA Configuration, assign the parameter value to the following parameters:

```
data_backup_parameter_file
log_backkup_parameter_file
catalog_backup_parameter_file
```

4 Configure the recommended values for the following parameters:

Table 2. Recommended values for parameter file

Parameter	Value
Data_backup_parameter_file	location of init<SID>.utl
Log_backup_parameter_file	location of init<SID>.utl

Table 2. Recommended values for parameter file

Parameter	Value
`Catalog_backup_parameter_file`	`location of init<SID>.utl`
`Log_backup_using_backint`	`True`
`Catalog_backup_using_backint`	`True`

For more information about the use of parameter files, see the relevant SAP HANA documentation.

Updating the parameter file

As noted previously,when the parameter file is configured using SAP HANA Studio or Cockpit, the plug-in uses the parameter file specified in the SAP HANA tools. The following table lists the available NetVault Backup and Plug-in *for SAP HANA* options, valid entries, and default values that are used.

Table 3. Entries for the parameter file

NetVault Backup or Plug-in *for SAP HANA* option	Value to enter	Default setting
Advanced Options Set	*<AdvanceOptionsSetName>*	Not applicable (n/a)
Auto Label Media	true|false	TRUE
Backup Job Count	*<count>*	30
Backup Target Set	*<NameOfBackpTargetSet>*	n/a
Device	*<DeviceName>*[,*<DeviceName>*[,…]]	
Dont Reuse Media	true|false	FALSE
Duplicate	true|false	FALSE
Duplicate Schedule Set	*<setNameOfScheduleSetToUse>*	Immediate
Duplicate Target Set	*<setNameOfTargetSetToUse>*	Any Device
First on Media	true|false	FALSE
Group Label	*<NameOfTapeGroup>*	n/a
Max Restore Jobs	*<count>*	1
MID	*<TapeLabel>*	n/a
Migrate	true|false	FALSE
Migration Life	<# days|weeks|years>	n/a
Minimum Space on Media	*<SpaceInMB>*	n/a
Network Compression	true|false	FALSE
Post Script	*<nameOfScriptFile>*	n/a
Post script args	*<userArgumentsForPostScript>*	n/a
Pre Script	*<nameOfScriptFile>*	n/a
Pre script args	*<userArgumentsForPreScript>*	n/a
Reuse Media	never|any|by_group	Never
Title		-Command line backup -Command line restore
UniqueTagForDB	*<uniqueNameForServer>*	Empty
Verify	true|false	FALSE

Backing up and restoring data

Backing up and restoring data for SAP HANA is performed using SAP HANA utilities, such as SAP HANA Studio, Cockpit, or HDBSQL; backups and restores are *not* performed using the NetVault Backup WebUI.

> **ⓘ IMPORTANT:** NetVault relies on SAP HANA utilities to perform maintenance and housekeeping operations, such as deleting obsolete data backups and log backups. For best performance, complete these maintenance and housekeeping operations regularly. For more information, refer to the SAP HANA documentation.

When a backup job is triggered in SAP HANA, **hdbbackint** creates the job in NetVault Backup. You can use the NetVault Backup WebUI to monitor the status of each job that **hdbbackint** initiates. After the job is finished, you can continue to use the WebUI to review pertinent information.

For more information on any of the SAP HANA utilities, see your SAP HANA Administration Guide.

About us

Quest provides software solutions for the rapidly-changing world of enterprise IT. We help simplify the challenges caused by data explosion, cloud expansion, hybrid datacenters, security threats, and regulatory requirements. We are a global provider to 130,000 companies across 100 countries, including 95% of the Fortune 500 and 90% of the Global 1000. Since 1987, we have built a portfolio of solutions that now includes database management, data protection, identity and access management, Microsoft platform management, and unified endpoint management. With Quest, organizations spend less time on IT administration and more time on business innovation. For more information, visit www.quest.com.

Technical support resources

Technical support is available to Quest customers with a valid maintenance contract and customers who have trial versions. You can access the Quest Support Portal at https://support.quest.com.

The Support Portal provides self-help tools you can use to solve problems quickly and independently, 24 hours a day, 365 days a year. The Support Portal enables you to:

- Submit and manage a Service Request.
- View Knowledge Base articles.
- Sign up for product notifications.
- Download software and technical documentation.
- View how-to-videos.
- Engage in community discussions.
- Chat with support engineers online.
- View services to assist you with your product.