# WASABI ACADEMY

**Product Documentation**

# Veritas Backup Exec With Wasabi

Wasabi has been certified for use with Veritas Backup Exec. Veritas Backup Exec is a fast, cost-effective, unified backup and recovery solution for cloud-ready organizations.

For more information regarding Backup Exec-Wasabi support, please refer to Backup Exec HCL.

To use this product with Wasabi, please follow the instructions below.

*Please Note: The data restoration process is handled by your specific backup software application. As there are many potential variables that will affect your unique environment, it is strongly recommended that you seek the guidance of your backup software's technical support team in the event that you encounter difficulty, or have application-specific inquiries.*
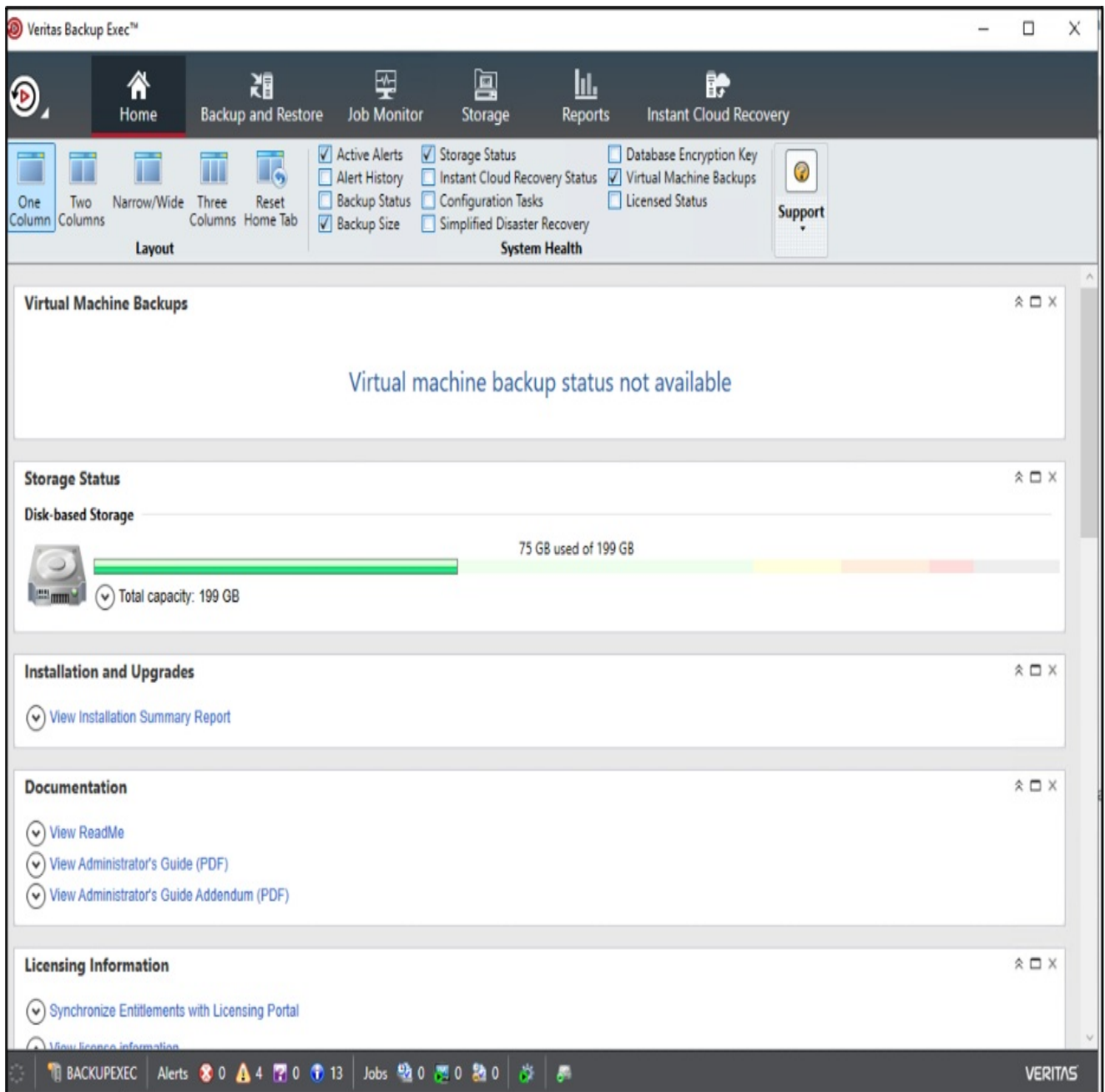
## 1. Prerequisites

- Operational Backup Exec v 22 and above

- An active Wasabi account

- Abucket created in the Wasabi account

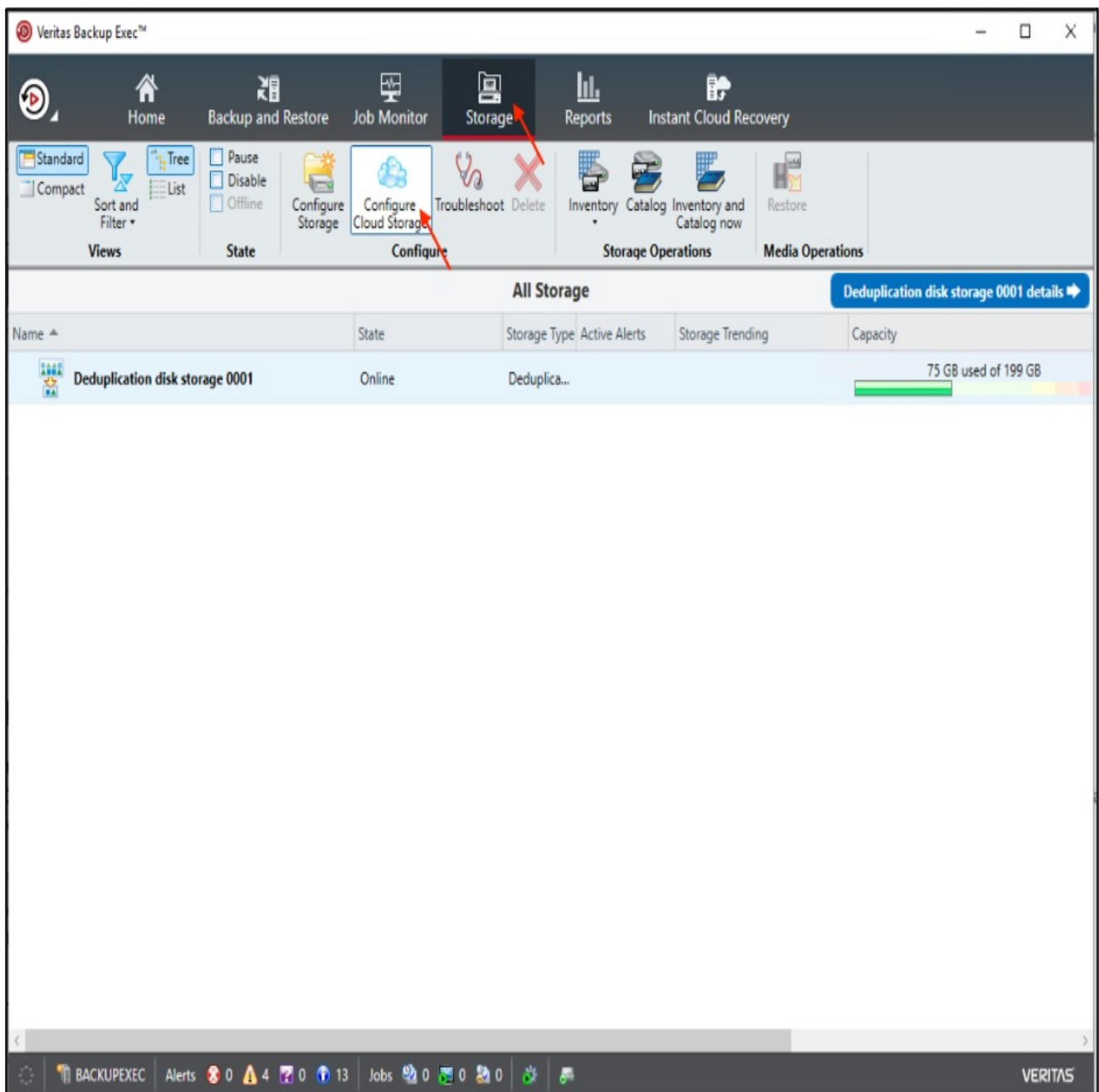*Note: To configure Wasabi for previous Backup Exec versions (v20.4 and above) please click here.*

## 2. Configure Wasabi as Cloud Storage Server

2.1. Log in to Backup Exec.

2.2. Navigate to the Storage tab. Click on "Configure Cloud storage".

2.3. In the Configure storage dialog box, provide a name for the cloud storage and click "Next".

## What name and description do you want to use for the cloud storage device?

**Name:** Wasabi-backup
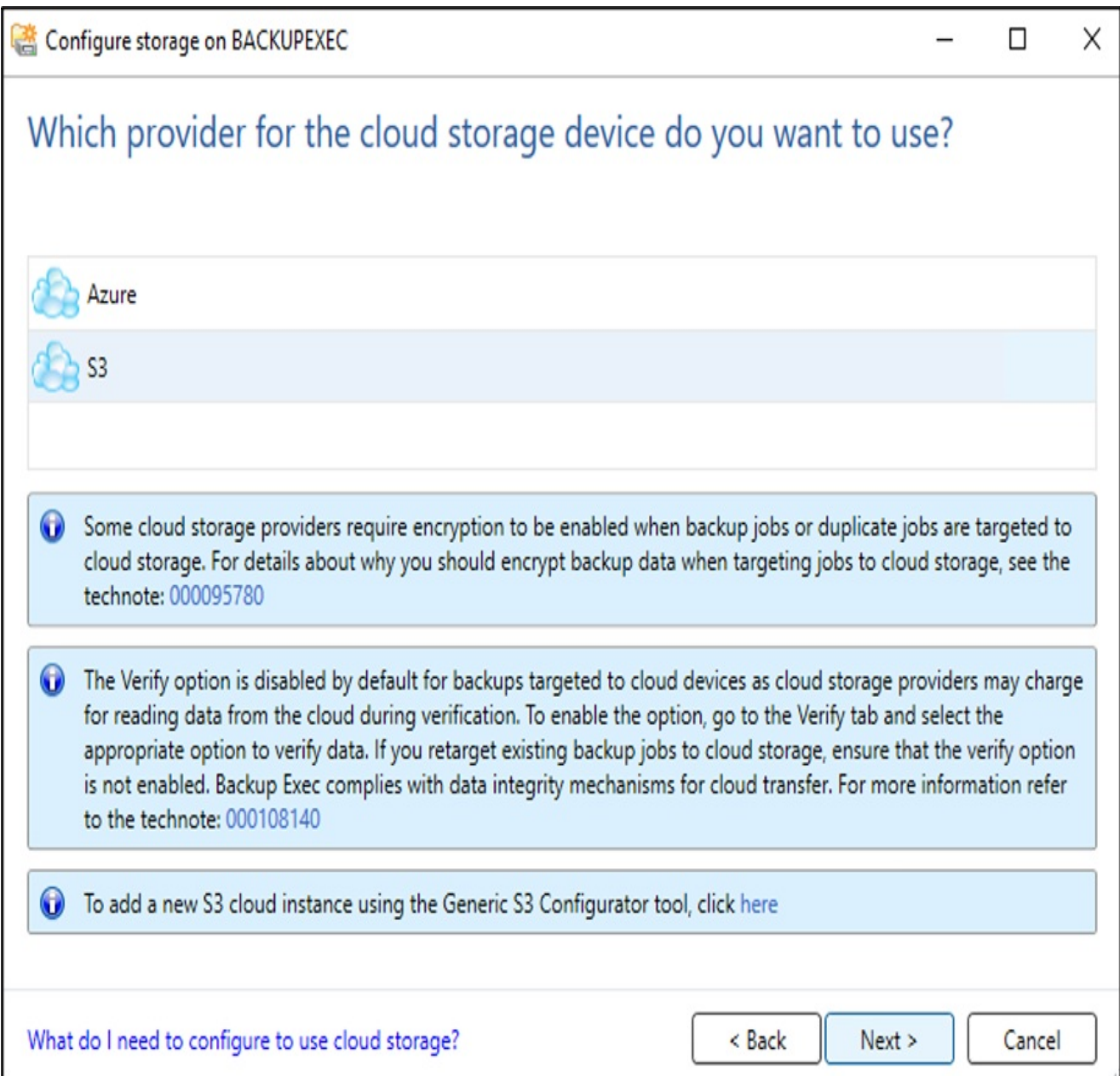
**Description:**

☐ Enable deduplication to cloud storage
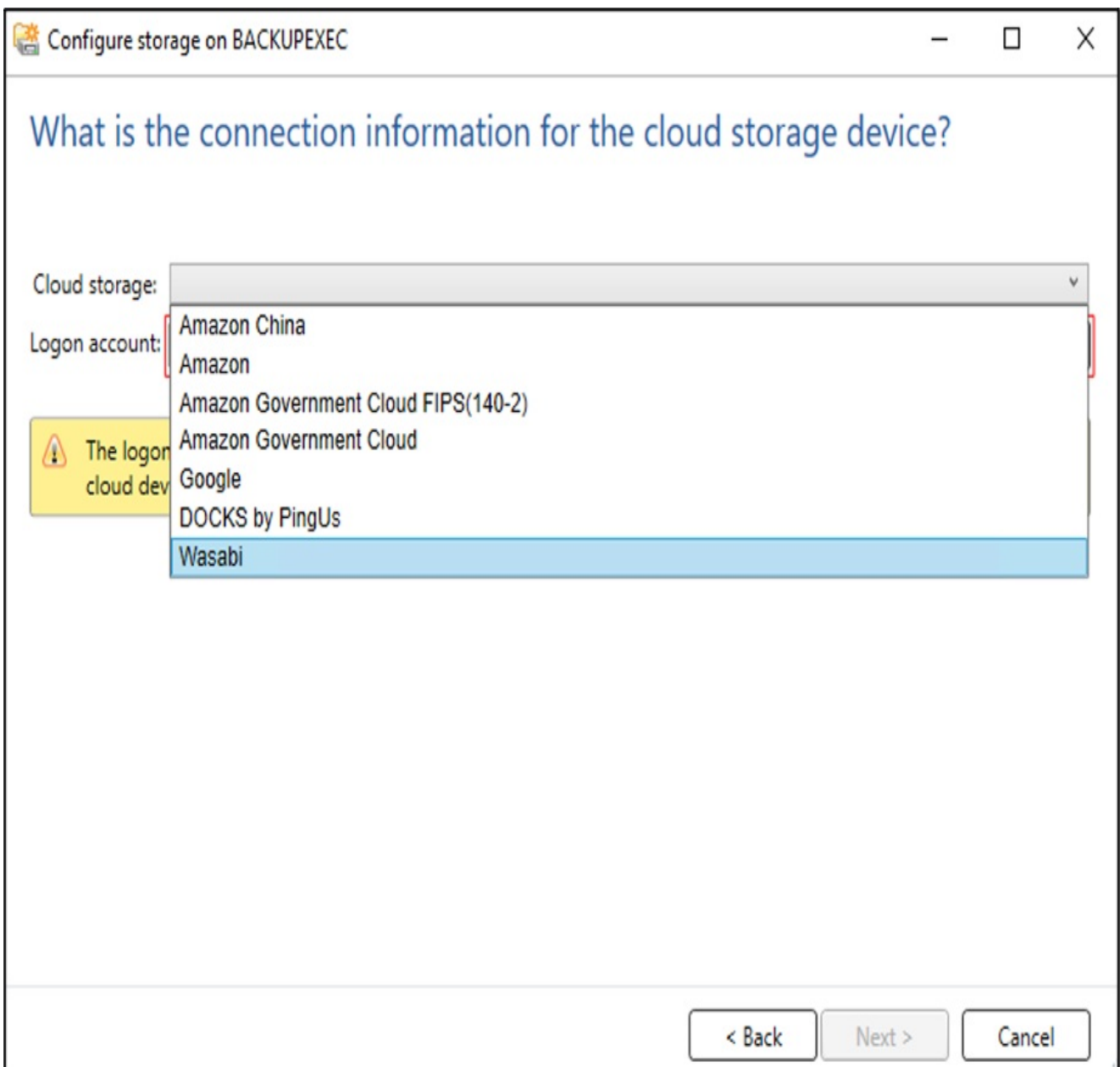
☐ Enable encryption

☐ I want to import an existing Cloud Deduplication Storage

ⓘ Select "Enable deduplication to cloud storage" option to use Backup Exec Cloud Deduplication.

Next >    Cancel

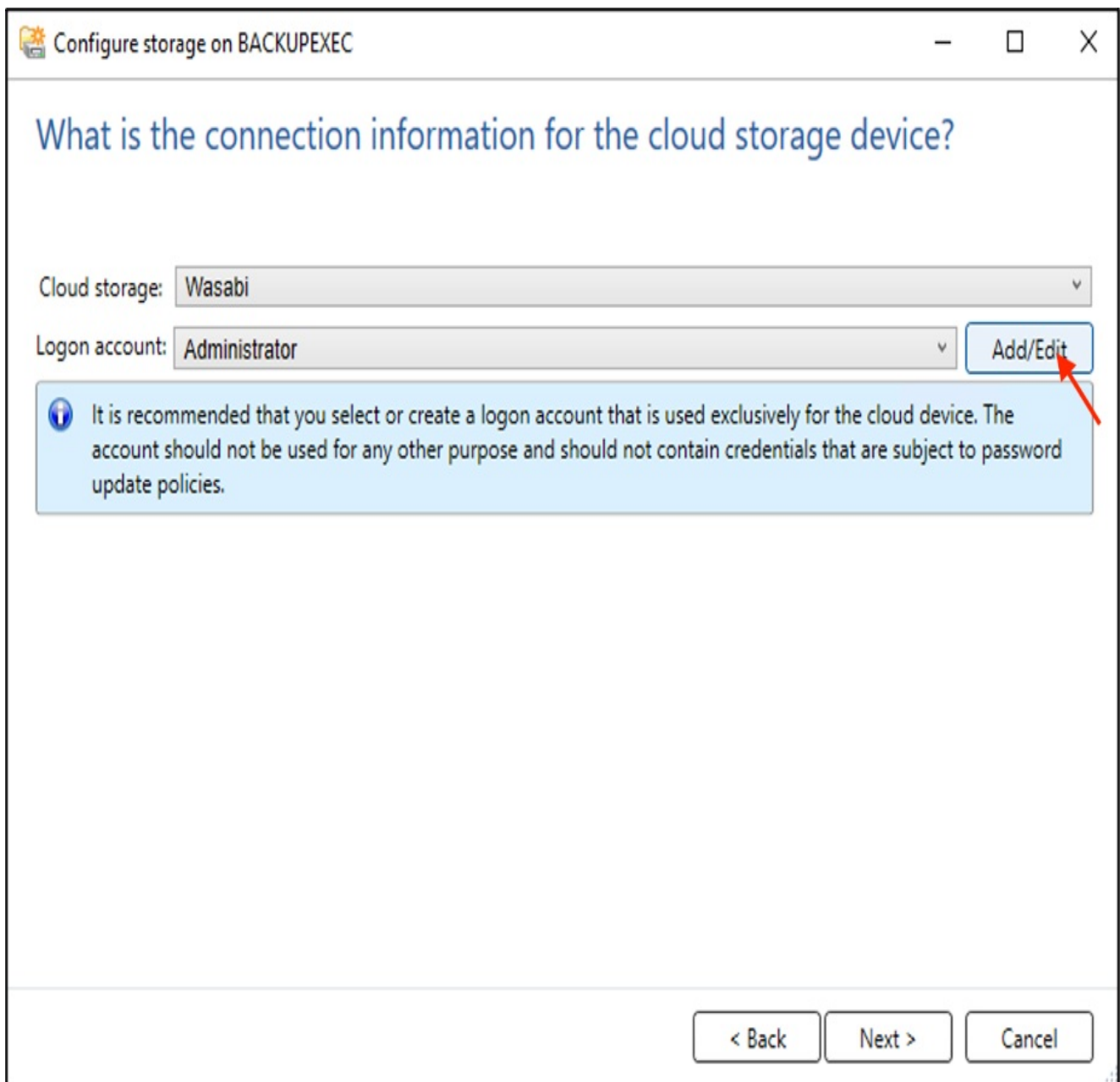2.4. Select "S3" for the cloud storage device provider and click "Next".

## Configure storage on BACKUPEXEC

# Which provider for the cloud storage device do you want to use?

Azure

S3

> Some cloud storage providers require encryption to be enabled when backup jobs or duplicate jobs are targeted to cloud storage. For details about why you should encrypt backup data when targeting jobs to cloud storage, see the technote: 000095780

> The Verify option is disabled by default for backups targeted to cloud devices as cloud storage providers may charge for reading data from the cloud during verification. To enable the option, go to the Verify tab and select the appropriate option to verify data. If you retarget existing backup jobs to cloud storage, ensure that the verify option is not enabled. Backup Exec complies with data integrity mechanisms for cloud transfer. For more information refer to the technote: 000108140

> To add a new S3 cloud instance using the Generic S3 Configurator tool, click here

What do I need to configure to use cloud storage?          < Back          Next >          Cancel

2.5. Select "Wasabi" from the Cloud storage dropdown menu.

**Configure storage on BACKUPEXEC**

# What is the connection information for the cloud storage device?

Cloud storage:

Logon account:

Amazon China
Amazon
Amazon Government Cloud FIPS(140-2)
Amazon Government Cloud
Google
DOCKS by PingUs
Wasabi

⚠ The logon
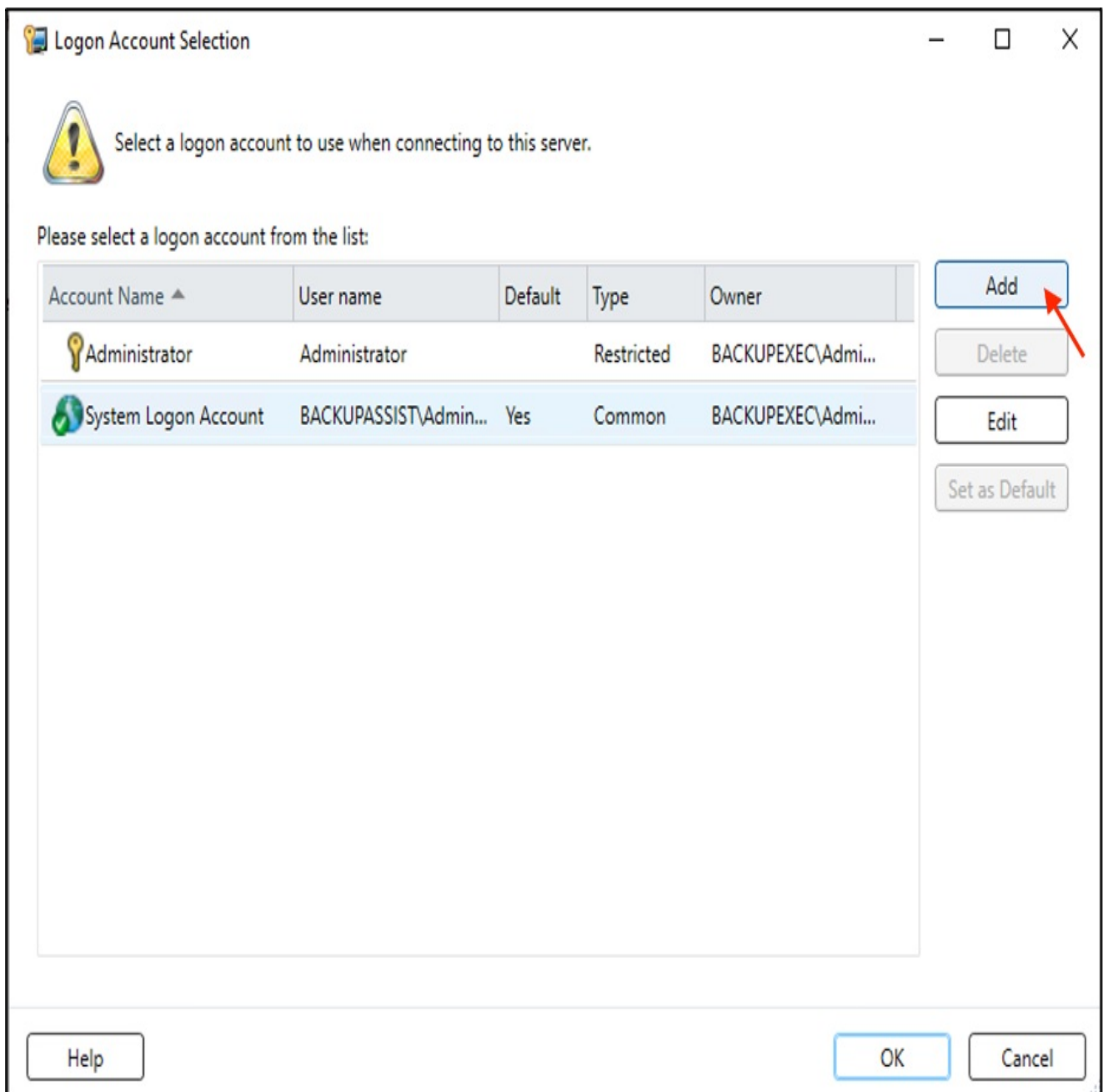cloud dev

[ < Back ] [ Next > ] [ Cancel ]

*Note:* *If you do not have Wasabi listed as an option, please follow the steps in the* *Appendix - Adding support for Wasabi.*

2.6. To add your Wasabi logon account details, click on "Add/Edit".

Configure storage on BACKUPEXEC

## What is the connection information for the cloud storage device?

Cloud storage: Wasabi

Logon account: Administrator    Add/Edit

ℹ It is recommended that you select or create a logon account that is used exclusively for the cloud device. The account should not be used for any other purpose and should not contain credentials that are subject to password update policies.

< Back    Next >    Cancel

2.7. In the Logon Account Selection window, click "Add".

2.8. In the Add Logon Credentials dialog box, provide the following details and click "OK".

- User name - Access Key of the Wasabi account

- Password - Secret Access Key

- Account name - provide a descriptive account name to identify the account

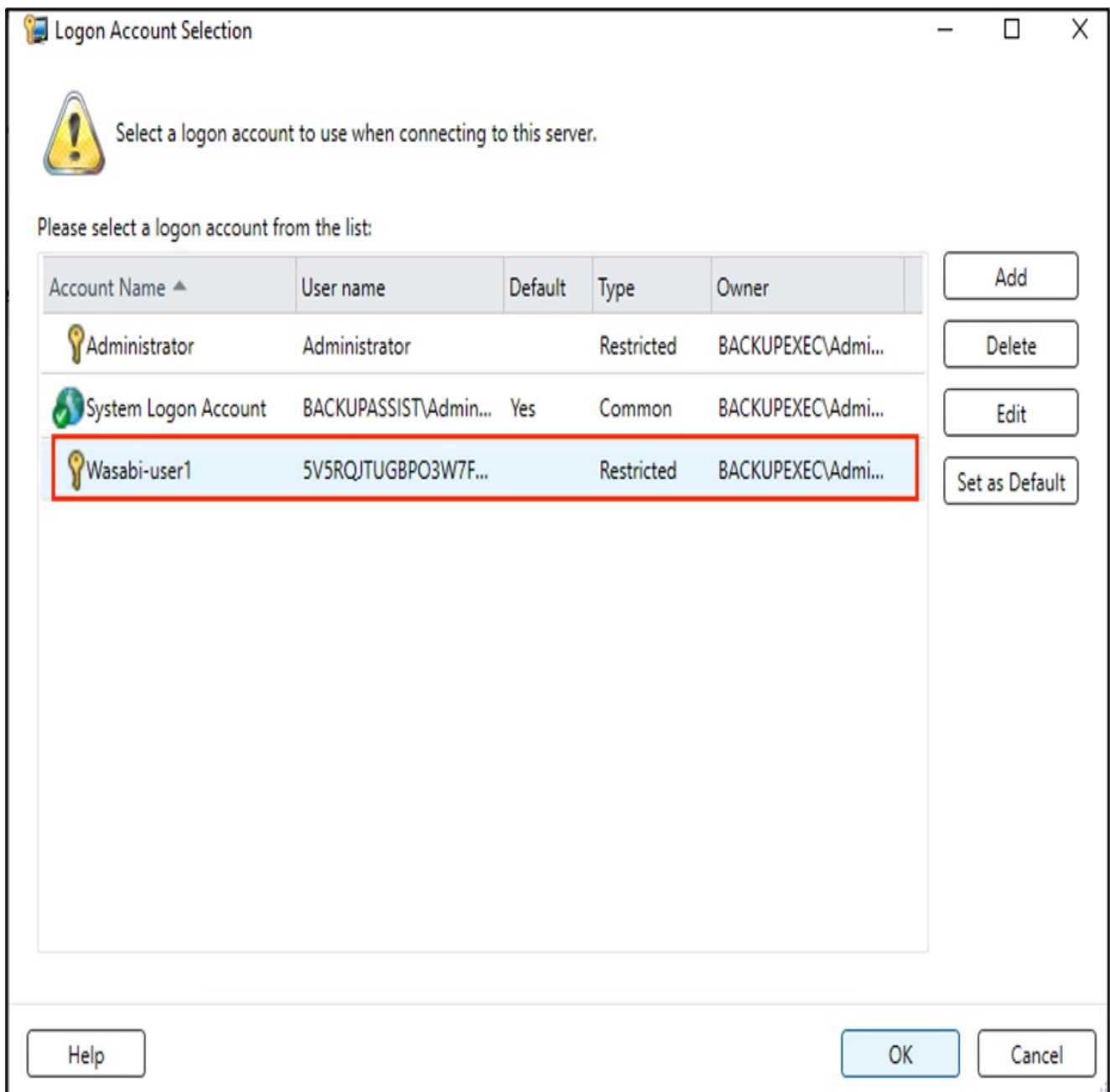## Add Logon Credentials

### Account credentials

User name: `5V5RQJTUGBPO3W7FGXXB`

Password: ●●●●●●●●●●●●●●●●●●●●●●●●●●●●●●●●●●●●●●●

Confirm password: ●●●●●●●●●●●●●●●●●●●●●●●●●●●●●●●●●●●●●●●

Account name:

`Wasabi-user1`

Notes:

☑ This is a restricted logon account.

☐ This is my default account.

Help      OK      Cancel

2.9. In the Logon Account Selection dialog box, select the account from the list and click OK.

2.10. Confirm the logon account and click "Next".

## What is the connection information for the cloud storage device?

Cloud storage: Wasabi

Logon account: Wasabi-user1    Add/Edit

ⓘ It is recommended that you select or create a logon account that is used exclusively for the cloud device. The account should not be used for any other purpose and should not contain credentials that are subject to password update policies.

< Back    Next >    Cancel

2.11. Select the required bucket from the list and click "Next".

## Configure storage on BACKUPEXEC

# Which logical storage unit do you want to use?

bexec-wasabi

< Back   Next >   Cancel
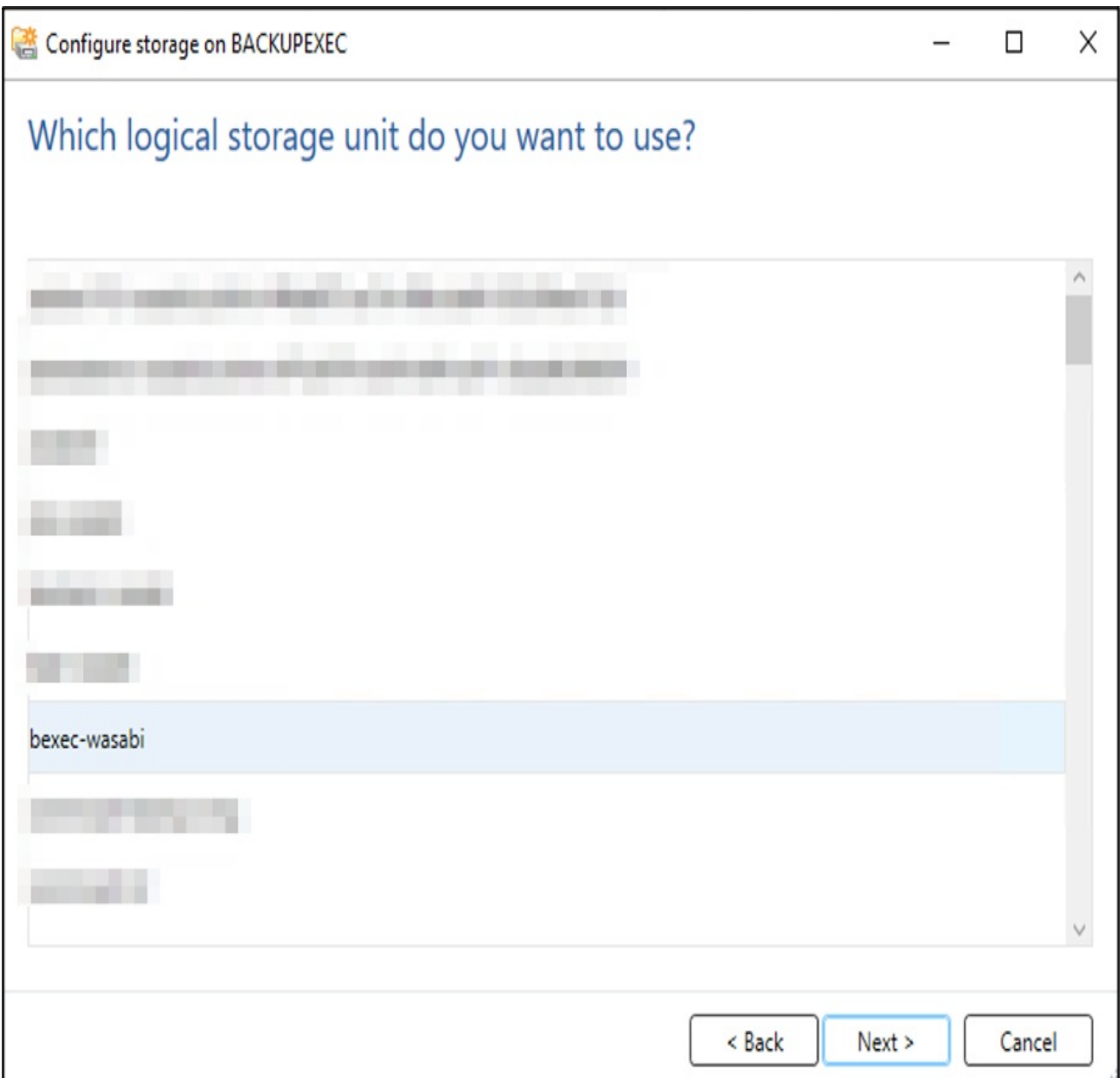
2.12. Configure the desired number of concurrent operations and click "Next".

Configure storage on BACKUPEXEC

## How many concurrent operations do you want to let run at the same time on this cloud storage device?

Concurrent operations: 4

ℹ️ This setting determines how many jobs can run at the same time on this device. The number of jobs that this device can handle varies depending on your hardware and environment, so you may need to adjust this setting later. It is recommended that you set it low enough to avoid overloading your system, but high enough to process your jobs in a timely manner.

< Back    Next >    Cancel

2.13. Review the configuration summary and click "Finish".

## Storage configuration summary

| Name and description for the cloud storage device | | ⌃ |
|---|---|---|
| Name: | Wasabi-backup | |
| Description: | | |

| Provider name | | ⌃ |
|---|---|---|
| Cloud provider name: | S3 | |

| Connection information | | ⌃ |
|---|---|---|
| Cloud server name: | wasabi:wasabi.com | |
| Logon account: | Wasabi-user1 | |

| Bucket / Storage container | | ⌃ |
|---|---|---|
| Storage location: | bexec-wasabi | |

| Number of concurrent operations allowed | | ⌃ |
|---|---|---|
| Concurrent operations: | 4 | |

< Back   Finish   Cancel

2.14. Click "Yes" to restart the Backup Exec services to provide the cloud storage online.
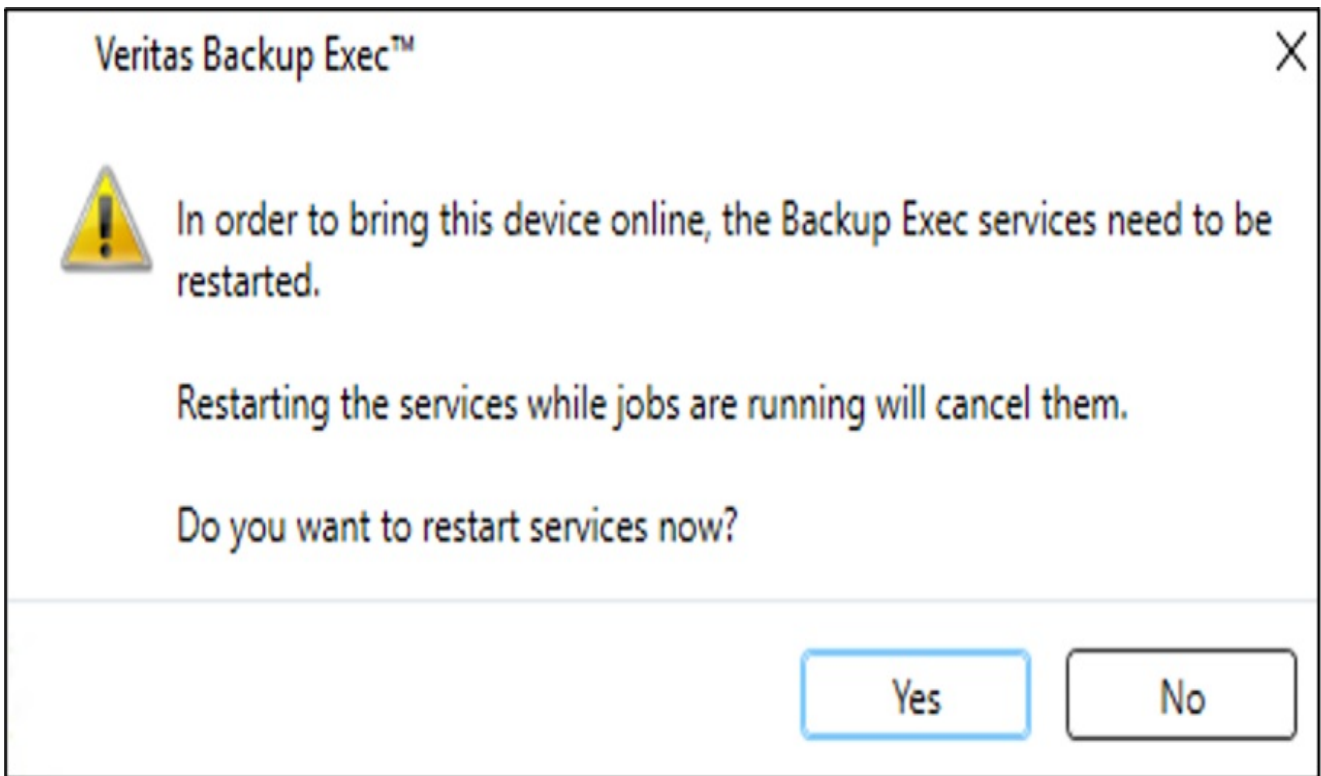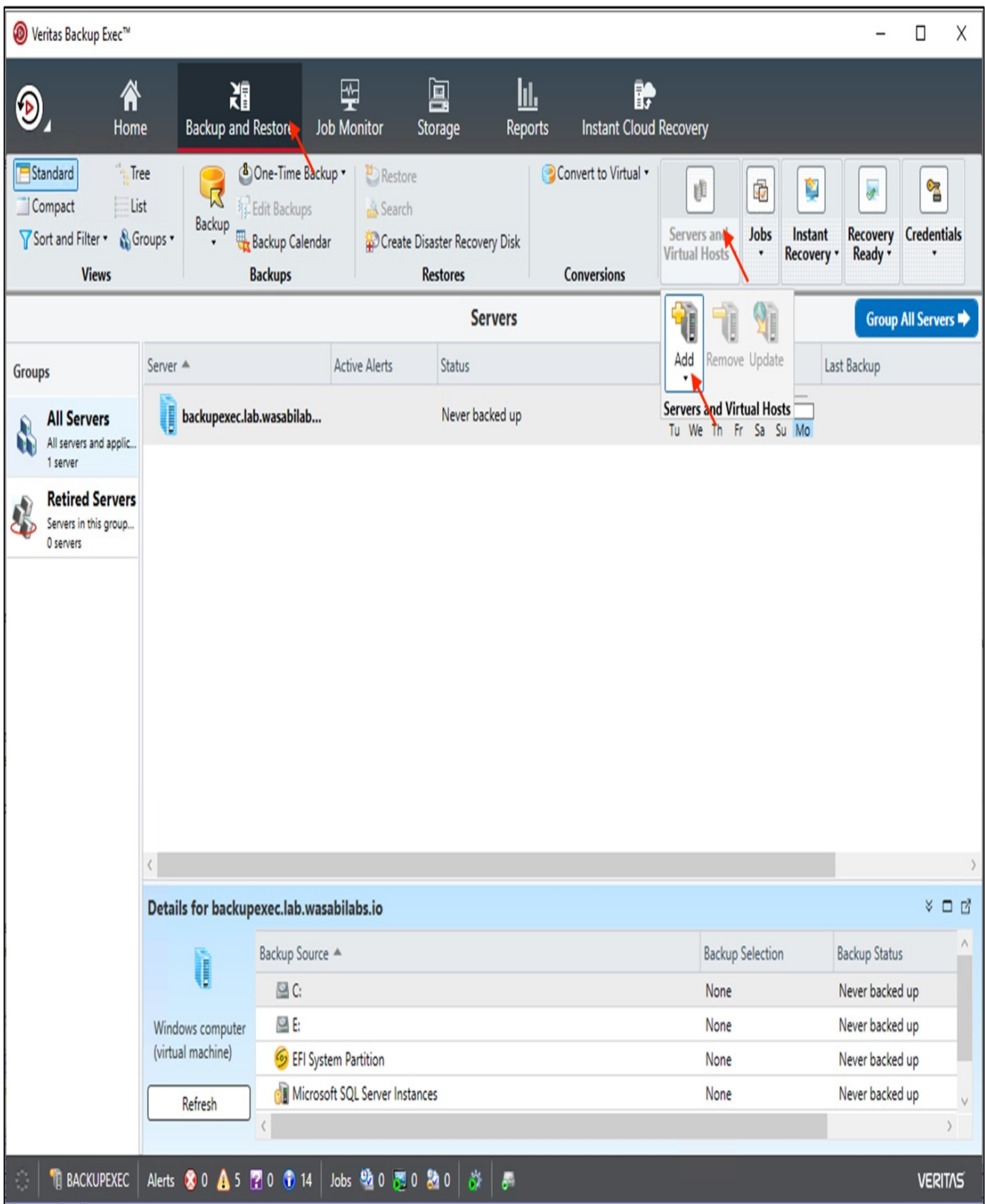
2.15. The new Wasabi cloud storage account is displayed in the Storage tab and is ready to use.
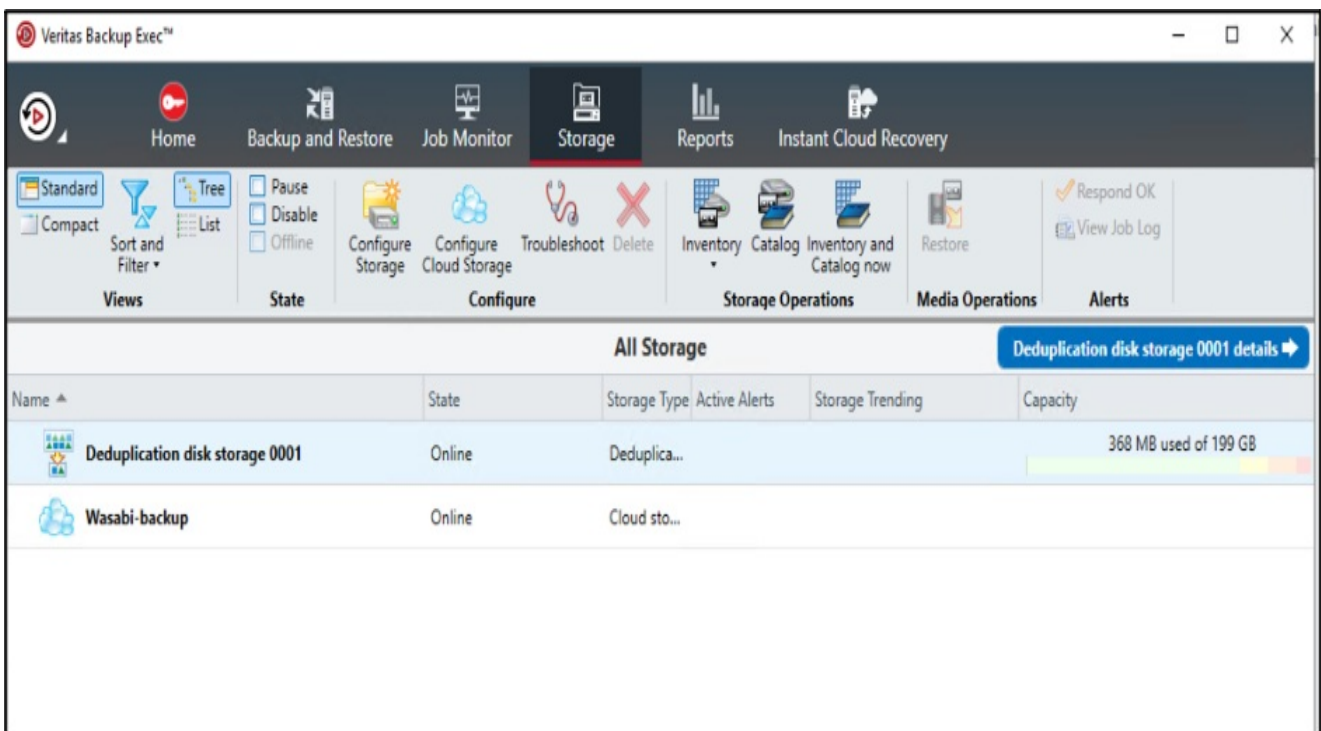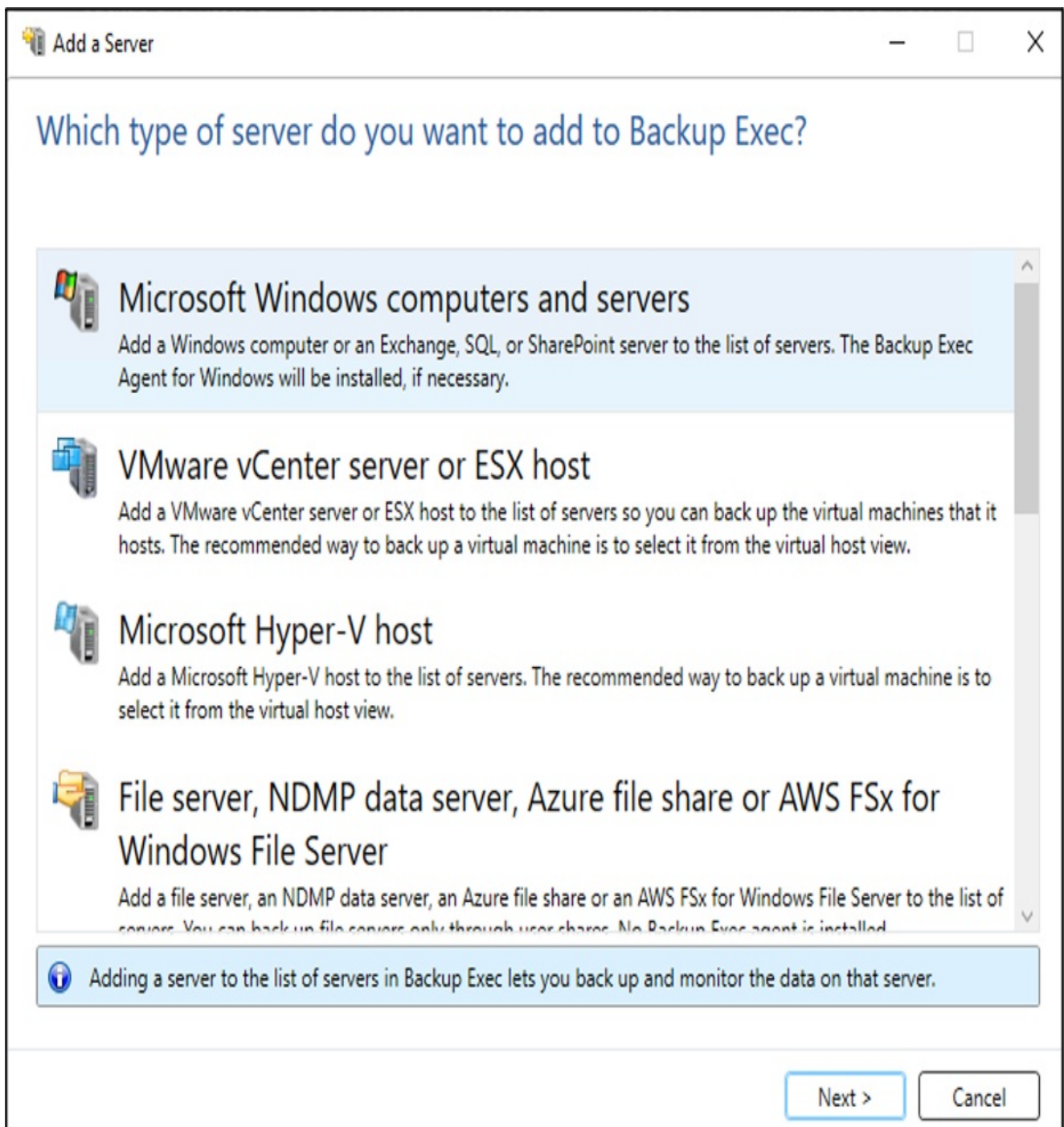


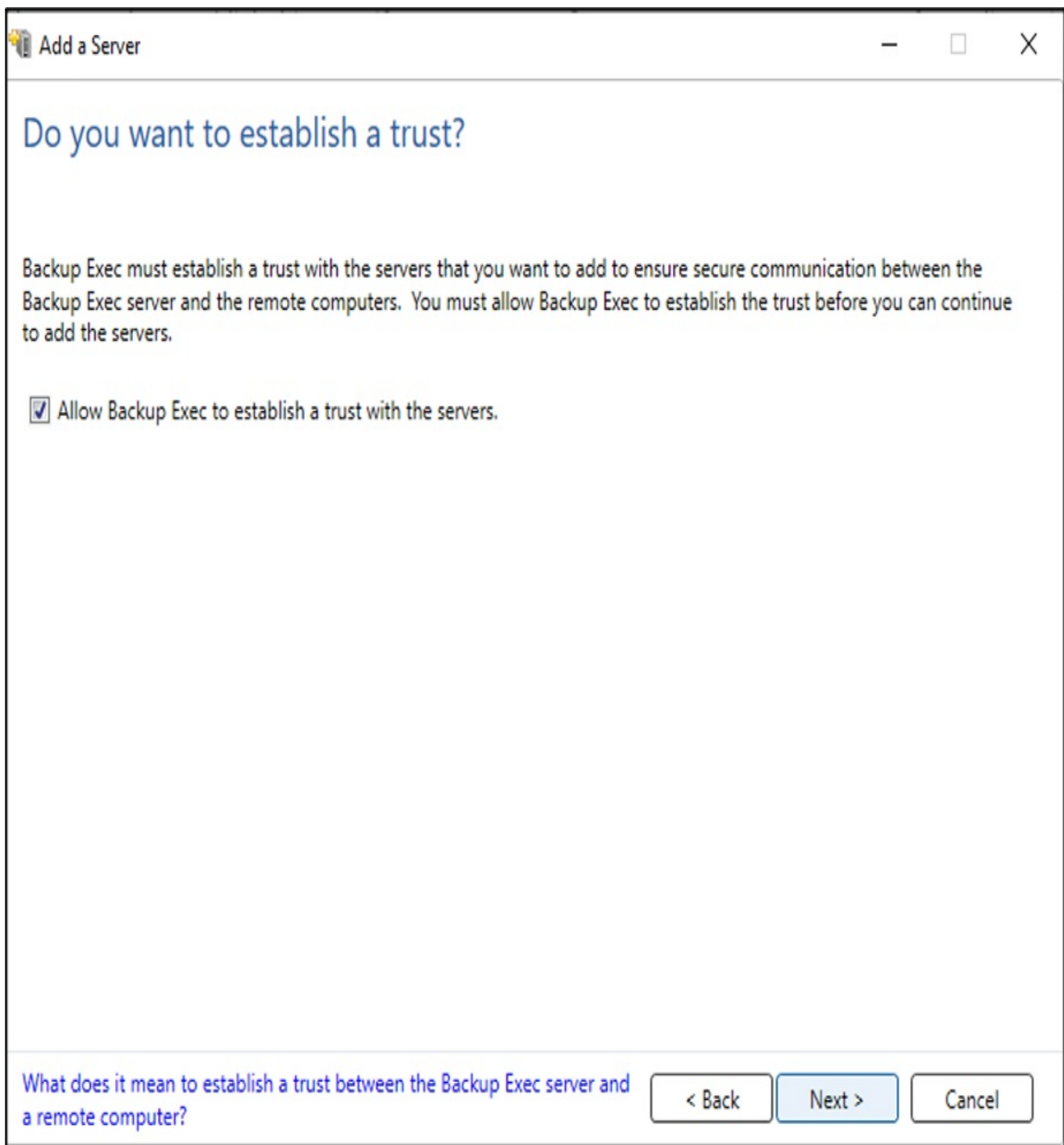# 3. Install Veritas backup exec agent and add server

3.1. Navigate to the "Backup and Restore" tab. Click "Servers and Virtual Hosts" and click "Add" to add a client to backup.

3.2. Choose the type of server infrastructure that needs to be backed up and click "Next".

## Add a Server

### Which type of server do you want to add to Backup Exec?

**Microsoft Windows computers and servers**

Add a Windows computer or an Exchange, SQL, or SharePoint server to the list of servers. The Backup Exec Agent for Windows will be installed, if necessary.

**VMware vCenter server or ESX host**

Add a VMware vCenter server or ESX host to the list of servers so you can back up the virtual machines that it hosts. The recommended way to back up a virtual machine is to select it from the virtual host view.

**Microsoft Hyper-V host**

Add a Microsoft Hyper-V host to the list of servers. The recommended way to back up a virtual machine is to select it from the virtual host view.

**File server, NDMP data server, Azure file share or AWS FSx for Windows File Server**

Add a file server, an NDMP data server, an Azure file share or an AWS FSx for Windows File Server to the list of servers. You can back up file servers only through user shares. No Backup Exec agent is installed.

ℹ Adding a server to the list of servers in Backup Exec lets you back up and monitor the data on that server.

Next >     Cancel

3.3. Check "Allow Backup Exec to establish a trust with the servers" check box and click "Next".

## Add a Server

# Do you want to establish a trust?

Backup Exec must establish a trust with the servers that you want to add to ensure secure communication between the Backup Exec server and the remote computers. You must allow Backup Exec to establish the trust before you can continue to add the servers.

☑ Allow Backup Exec to establish a trust with the servers.

What does it mean to establish a trust between the Backup Exec server and a remote computer?

[ < Back ]　[ Next > ]　[ Cancel ]

3.4. Add servers with an associated "Logon Account" and Click "Next".

**Add a Server** — □ × ✕

## Which servers do you want to add?

Type the name of a server or the server's IP address or browse for any servers that you want to add:

[                                                              ] [ Add ]
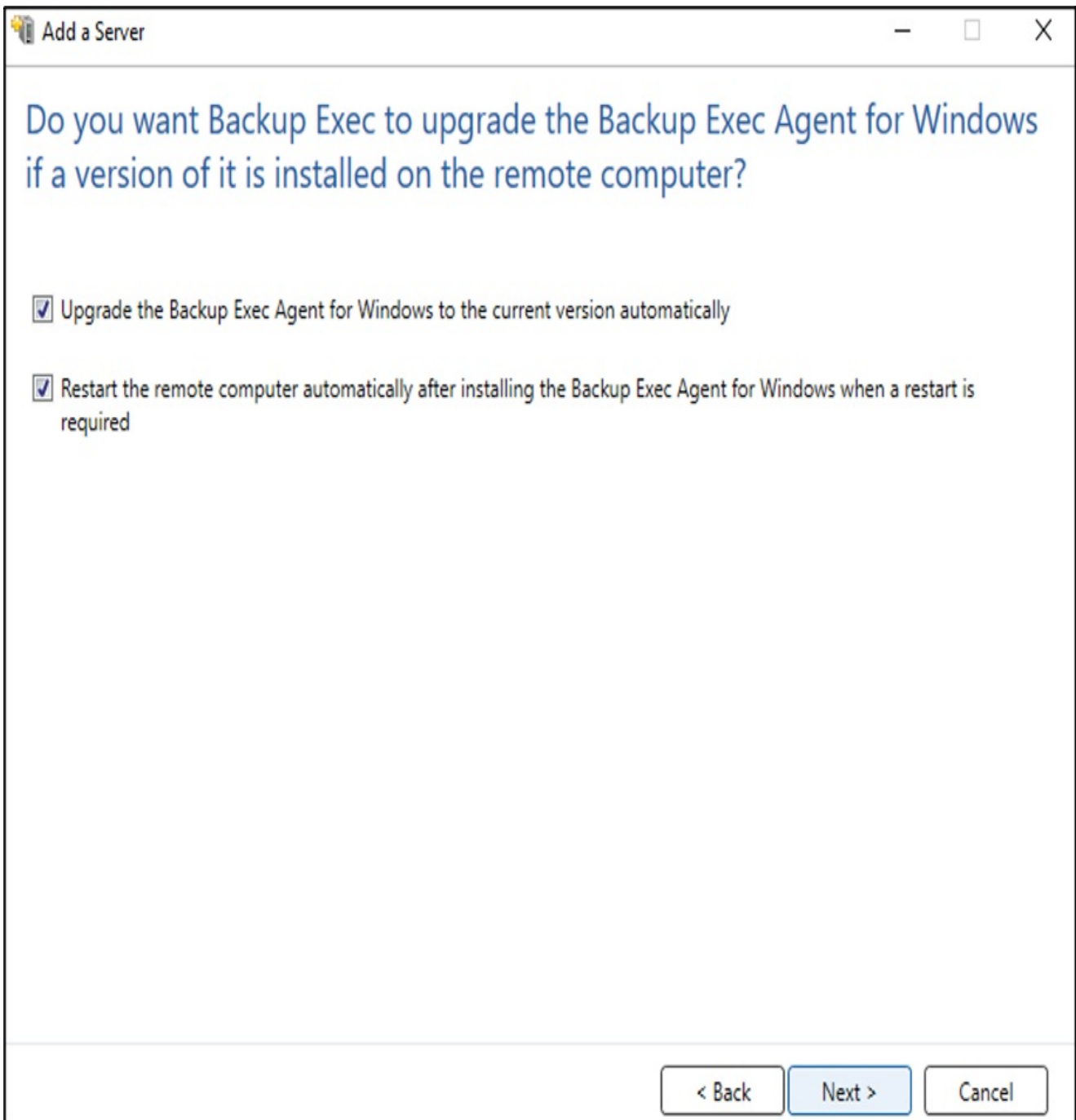
[ Browse ]

[ Delete ]

| Server Name ▲ | Logon Account |
|---|---|
| 192.168.197.43 | admin ⌄ |

[ Apply to All ]

☐ Always use IP address to connect to servers. Do not resolve IP addresses into fully qualified domain names.

What are logon accounts?                    [ < Back ] [ Next > ] [ Cancel ]

3.5. Check both boxes to ensure that updated backup agent software has been installed and available to create backup and click "Next".

**Add a Server**

Do you want Backup Exec to upgrade the Backup Exec Agent for Windows if a version of it is installed on the remote computer?

☑ Upgrade the Backup Exec Agent for Windows to the current version automatically

☑ Restart the remote computer automatically after installing the Backup Exec Agent for Windows when a restart is required

< Back    Next >    Cancel

3.6. Review the configurations and click "Install".

## Summary

| Type of server to add | ≫ |
|---|---|
| Microsoft Windows computers and servers | |

| Establish trust | ≫ |
|---|---|
| Yes | |

| Servers to add | | ≫ |
|---|---|---|
| Server Name | Logon Account | |
| 192.168.197.43 | admin | |
| Always use IP address to connect to servers | Yes | |

| Install features | | ≫ |
|---|---|---|
| Upgrade the Backup Exec Agent for Windows to the current version automatically: | Yes | |
| Restart the remote computer automatically after installing the Backup Exec Agent for Windows when a restart is required: | Yes | |

< Back    Install    Cancel

3.7. Veritas Backup Exec will verify appropriate packages have been configured and installed on your remote server and complete successfully.
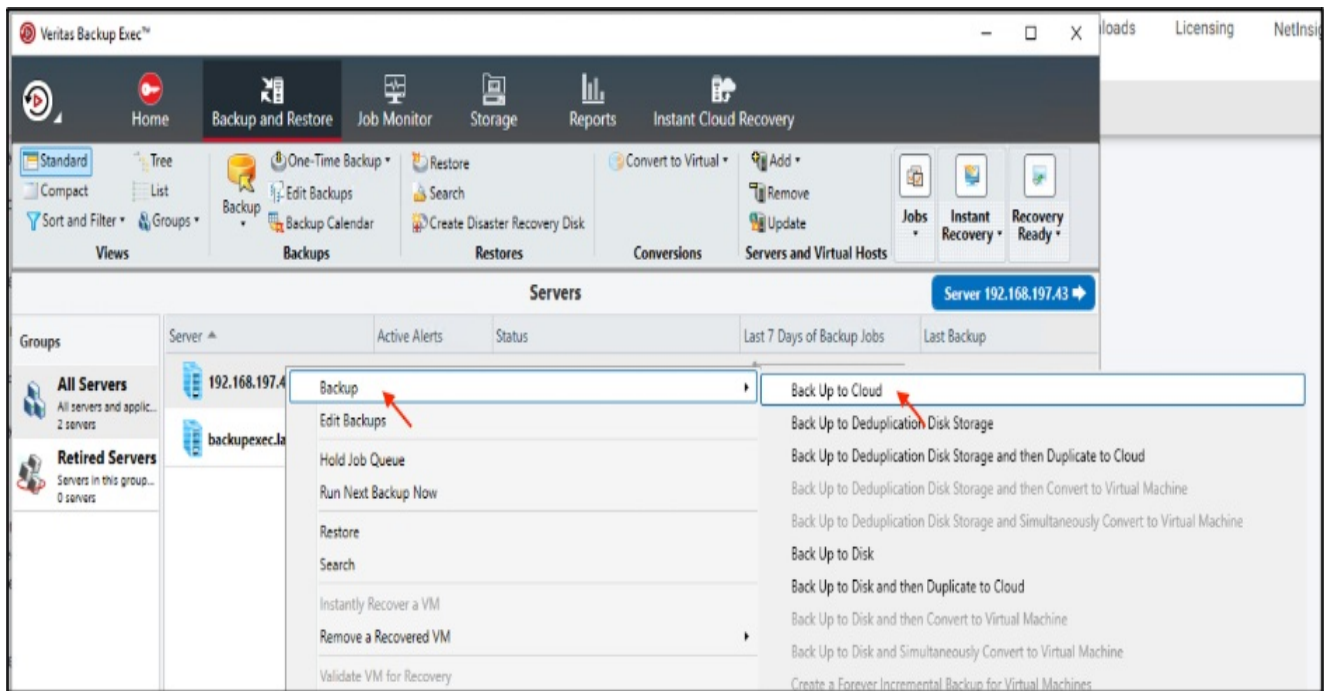
**Add a Server**

# Installing the Backup Exec Agent for Windows.

| Server Name | Progress |
|---|---|
| 192.168.197.43 | ✅ Successful |

Finish
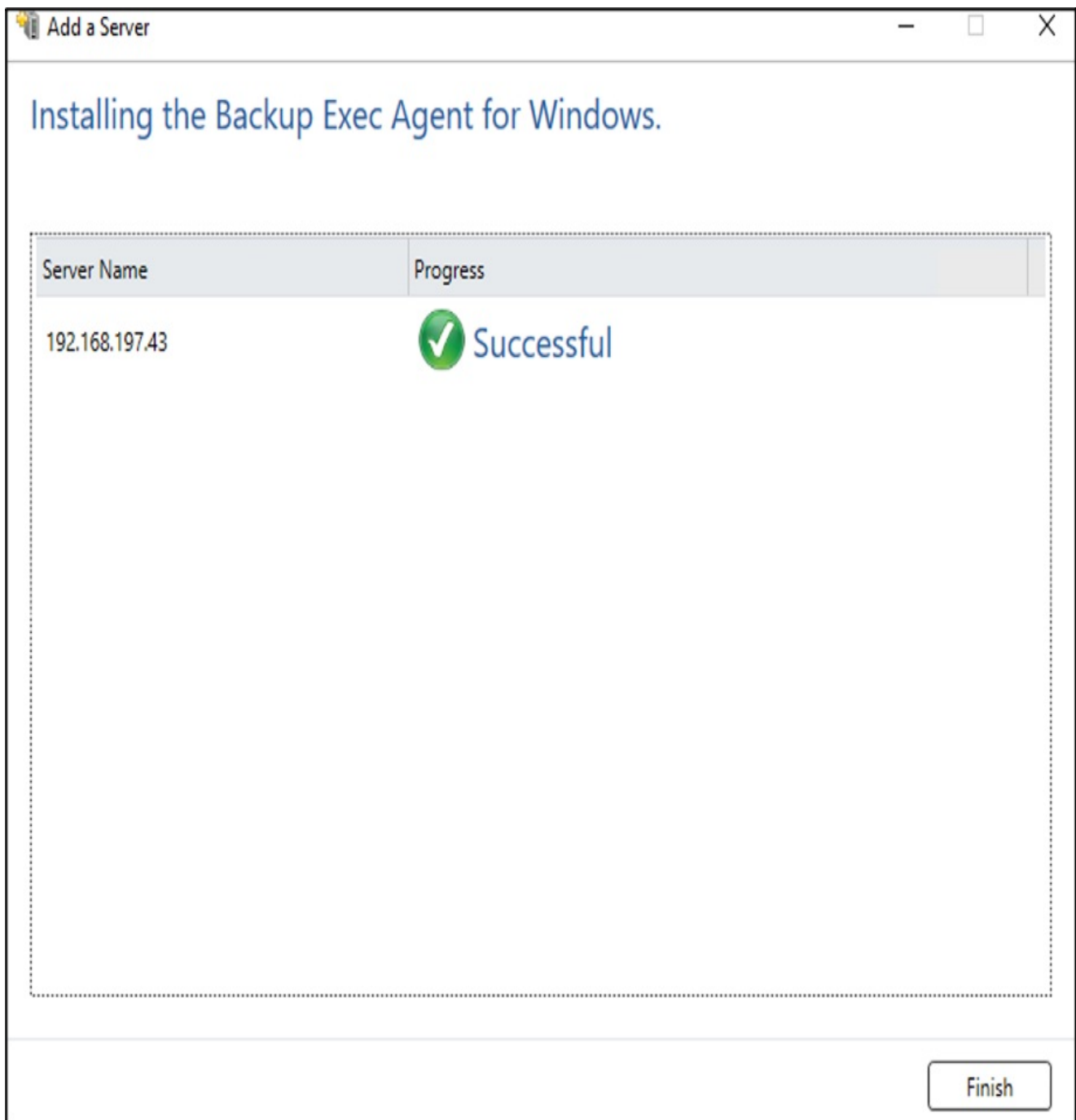
3.8. Once the agent software is successfully installed - the server will be available to be backed up.
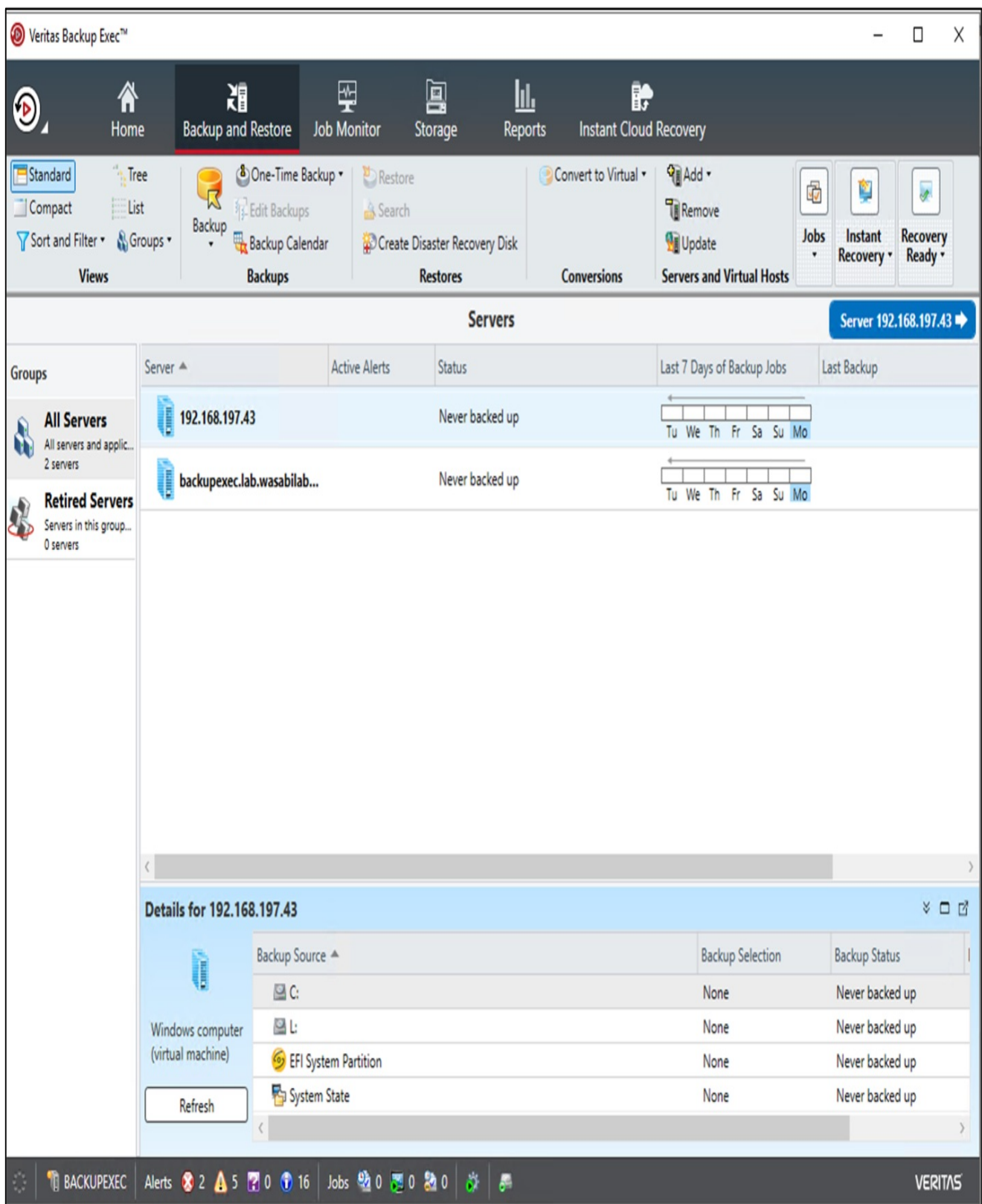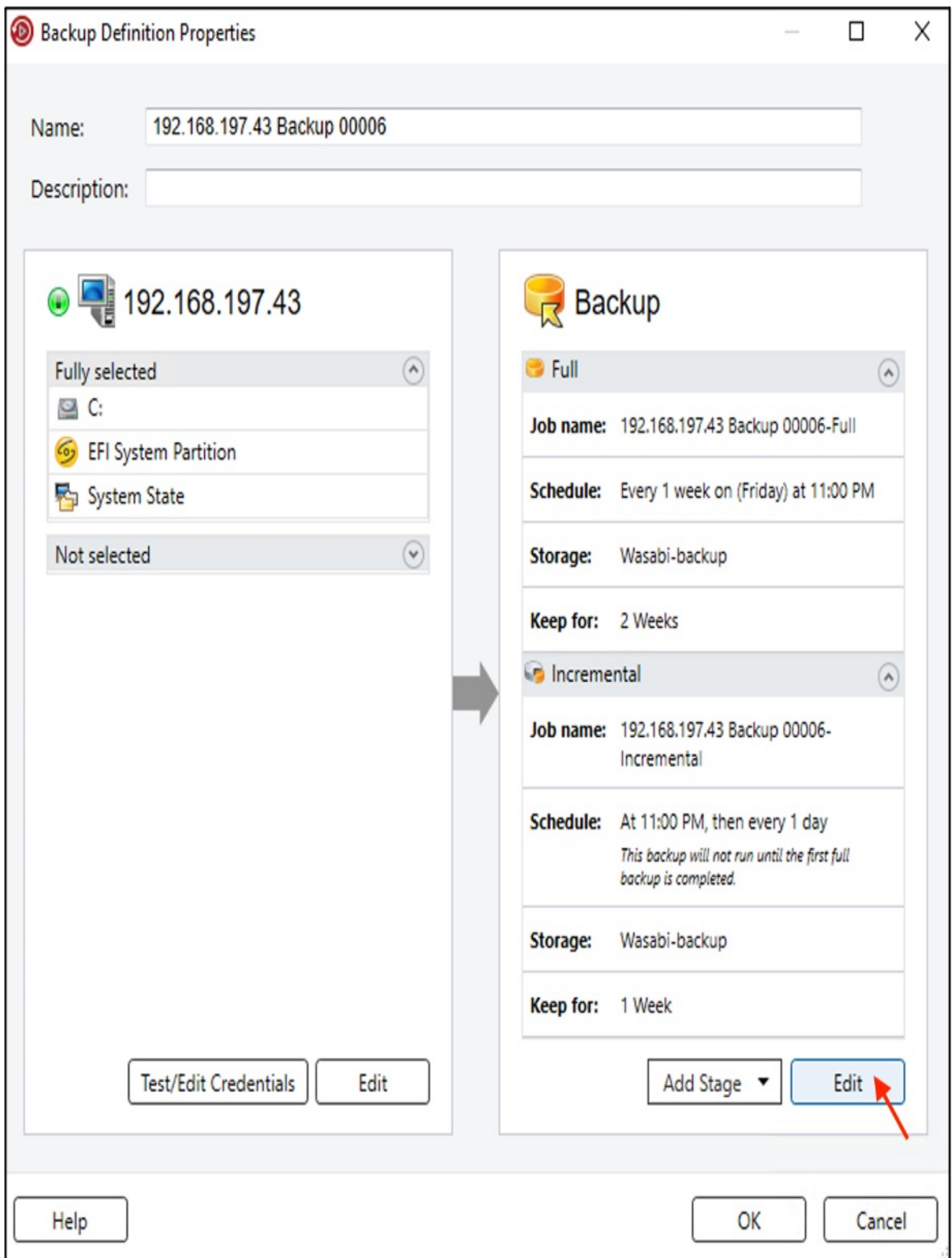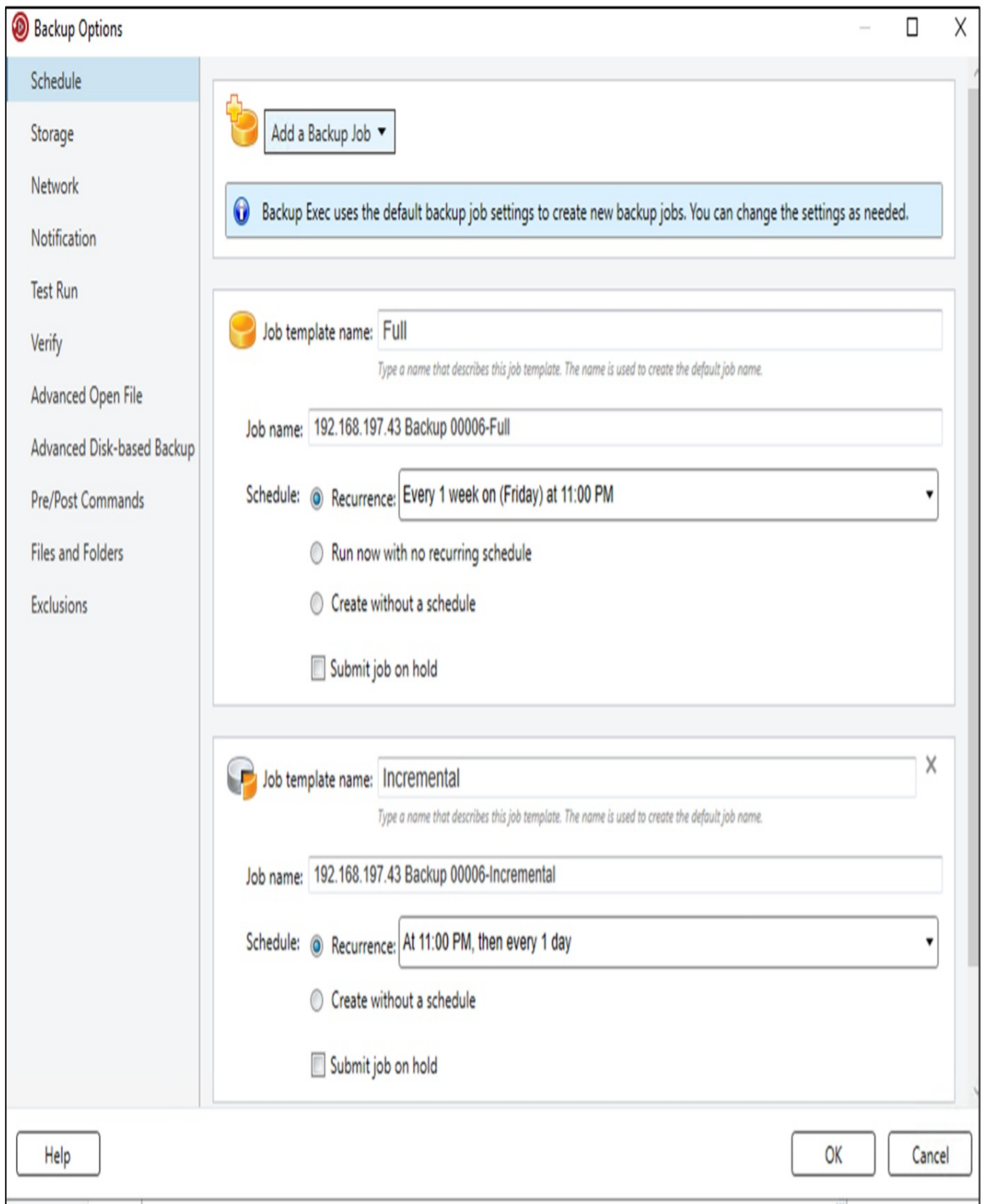
# 4. Create a backup job

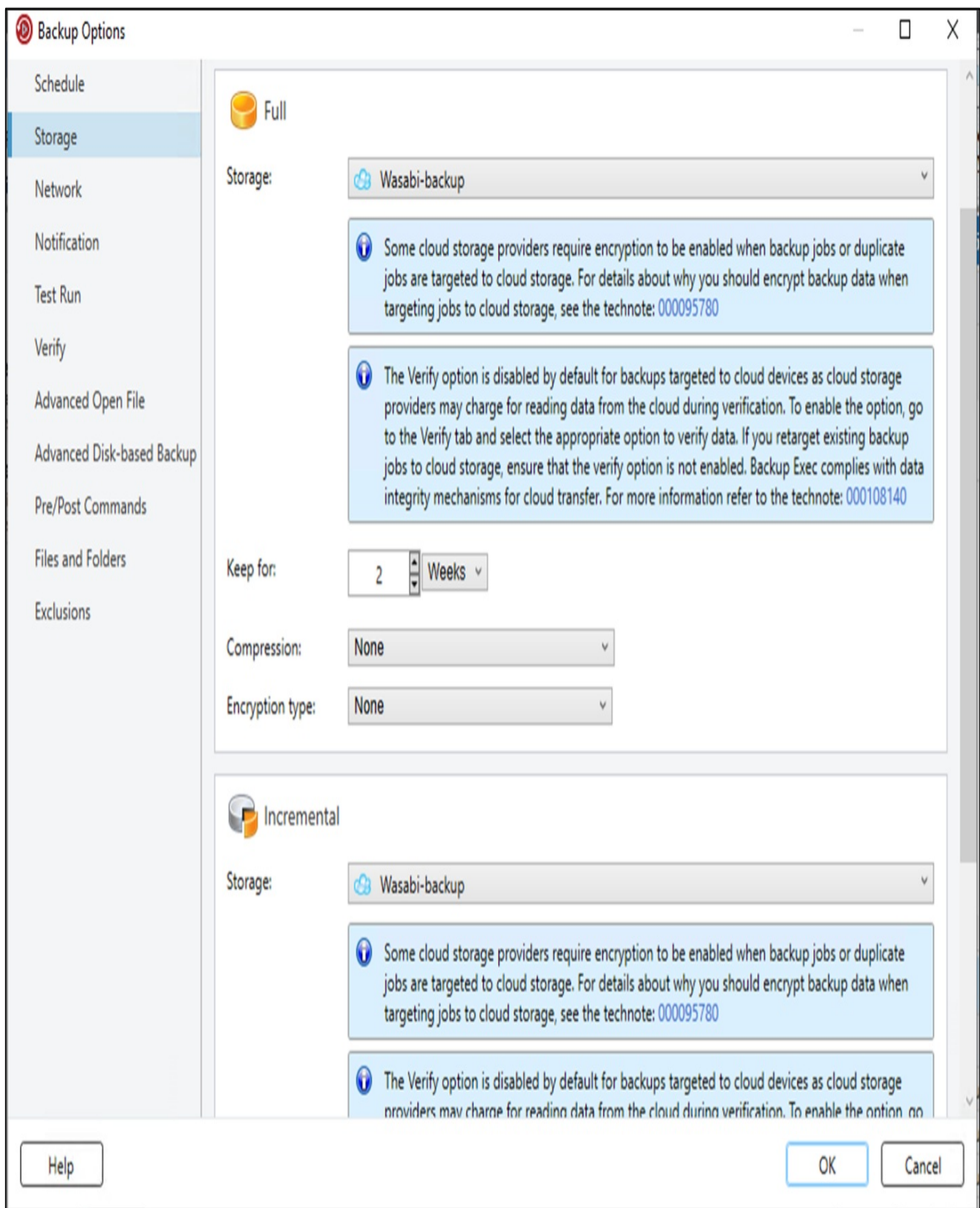4.1. Right-click on the server that needs to be backed up and choose "Back Up to Cloud".

4.2. Click "Edit" and choose the type of backup, backup certain folders, application data or entire VM.
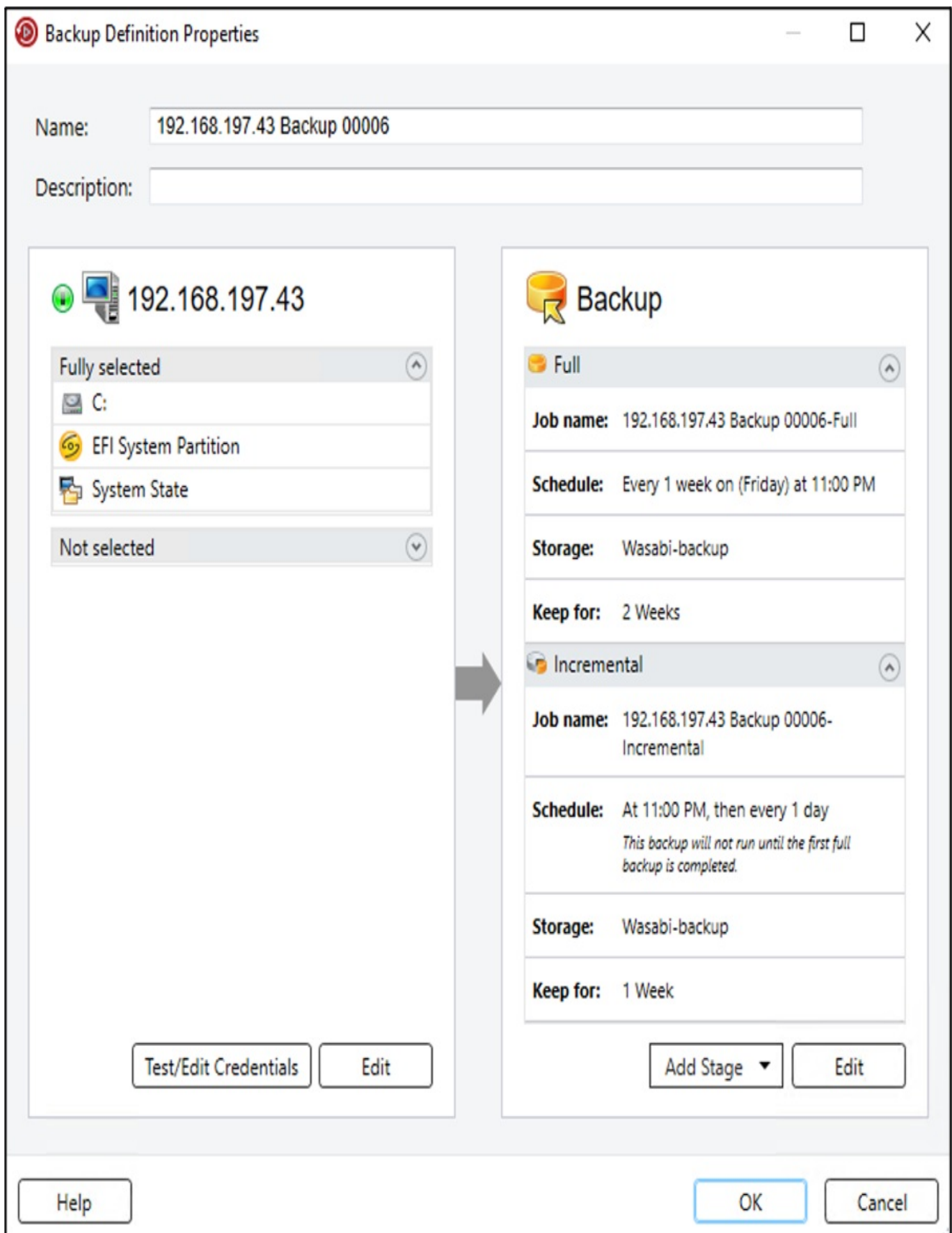
**Backup Definition Properties**

Name: 192.168.197.43 Backup 00006

Description:

**192.168.197.43**

Fully selected
- C:
- EFI System Partition
- System State

Not selected

Test/Edit Credentials    Edit

**Backup**

**Full**

| Job name: | 192.168.197.43 Backup 00006-Full |
| Schedule: | Every 1 week on (Friday) at 11:00 PM |
| Storage: | Wasabi-backup |
| Keep for: | 2 Weeks |

**Incremental**

| Job name: | 192.168.197.43 Backup 00006-Incremental |
| Schedule: | At 11:00 PM, then every 1 day. *This backup will not run until the first full backup is completed.* |
| Storage: | Wasabi-backup |
| Keep for: | 1 Week |

Add Stage ▼    Edit

Help    OK    Cancel

4.3. Under the "Backup" section and choose when the backup needs to run, either run it once or create a schedule based on the requirement.
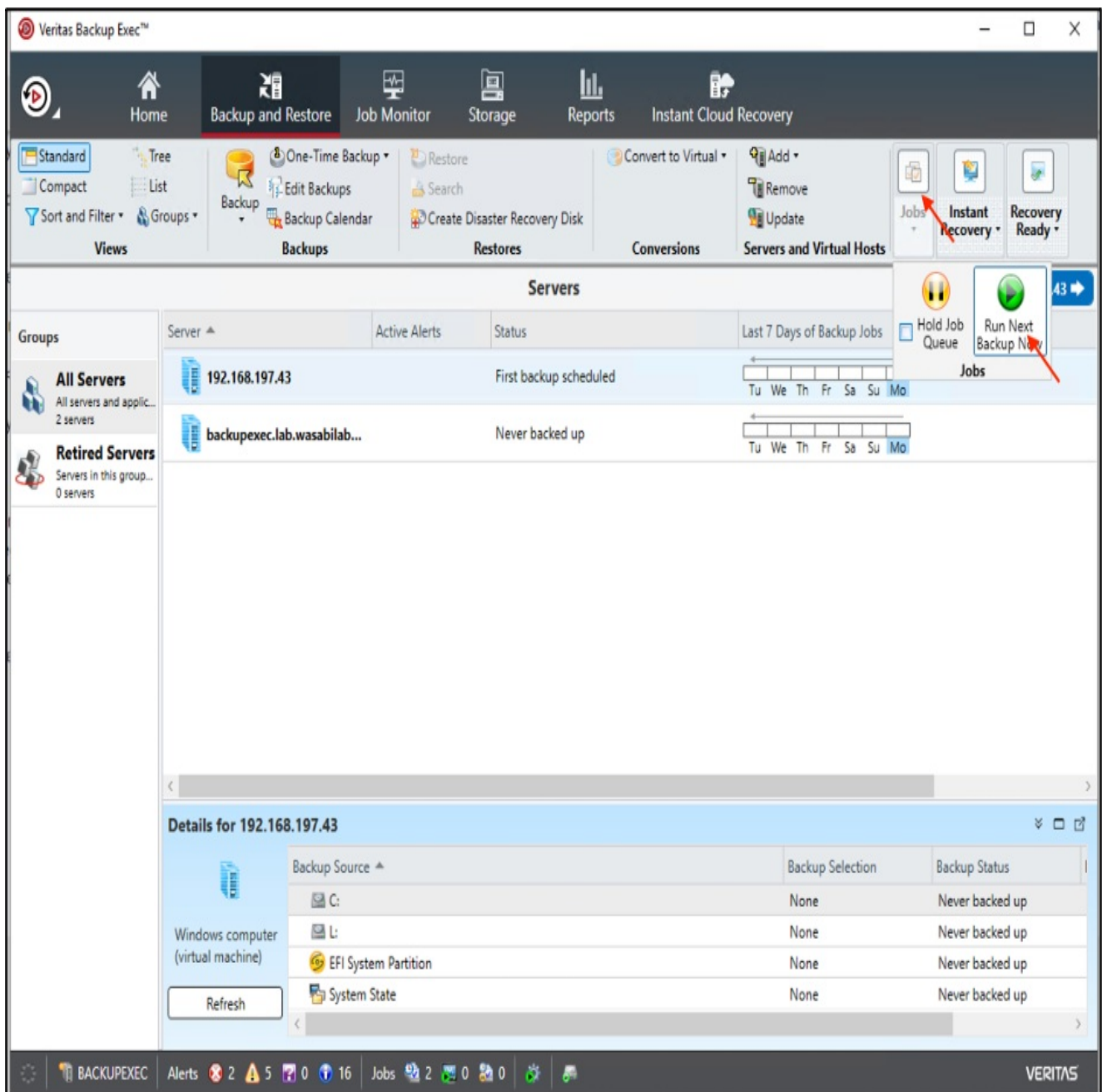
**Backup Options**

Schedule
Storage
Network
Notification
Test Run
Verify
Advanced Open File
Advanced Disk-based Backup
Pre/Post Commands
Files and Folders
Exclusions

[+] Add a Backup Job ▼

ℹ️ Backup Exec uses the default backup job settings to create new backup jobs. You can change the settings as needed.

Job template name: Full

*Type a name that describes this job template. The name is used to create the default job name.*

Job name: 192.168.197.43 Backup 00006-Full

Schedule: ◉ Recurrence: Every 1 week on (Friday) at 11:00 PM ▼

○ Run now with no recurring schedule

○ Create without a schedule

☐ Submit job on hold

Job template name: Incremental   X

*Type a name that describes this job template. The name is used to create the default job name.*

Job name: 192.168.197.43 Backup 00006-Incremental

Schedule: ◉ Recurrence: At 11:00 PM, then every 1 day ▼

○ Create without a schedule

☐ Submit job on hold

Help                    OK    Cancel

4.4. Click on "Storage", choose the Wasabi cloud storage account to store your backup and click "OK" in the Full and

Incremental backup sections.

**Backup Options**

Schedule
**Storage**
Network
Notification
Test Run
Verify
Advanced Open File
Advanced Disk-based Backup
Pre/Post Commands
Files and Folders
Exclusions

**Full**

Storage:  Wasabi-backup

ℹ Some cloud storage providers require encryption to be enabled when backup jobs or duplicate jobs are targeted to cloud storage. For details about why you should encrypt backup data when targeting jobs to cloud storage, see the technote: 000095780

ℹ The Verify option is disabled by default for backups targeted to cloud devices as cloud storage providers may charge for reading data from the cloud during verification. To enable the option, go to the Verify tab and select the appropriate option to verify data. If you retarget existing backup jobs to cloud storage, ensure that the verify option is not enabled. Backup Exec complies with data integrity mechanisms for cloud transfer. For more information refer to the technote: 000108140

Keep for:  2  Weeks ⌄

Compression:  None

Encryption type:  None

**Incremental**

Storage:  Wasabi-backup

ℹ Some cloud storage providers require encryption to be enabled when backup jobs or duplicate jobs are targeted to cloud storage. For details about why you should encrypt backup data when targeting jobs to cloud storage, see the technote: 000095780

ℹ The Verify option is disabled by default for backups targeted to cloud devices as cloud storage providers may charge for reading data from the cloud during verification. To enable the option, go

Help                    OK    Cancel

4.5. Click "OK" in the Backup Definition Properties.

**Backup Definition Properties**

Name: 192.168.197.43 Backup 00006

Description:

### 192.168.197.43

**Fully selected**
- C:
- EFI System Partition
- System State

**Not selected**

Test/Edit Credentials      Edit

### Backup

**Full**

| | |
|---|---|
| Job name: | 192.168.197.43 Backup 00006-Full |
| Schedule: | Every 1 week on (Friday) at 11:00 PM |
| Storage: | Wasabi-backup |
| Keep for: | 2 Weeks |

**Incremental**

| | |
|---|---|
| Job name: | 192.168.197.43 Backup 00006-Incremental |
| Schedule: | At 11:00 PM, then every 1 day *This backup will not run until the first full backup is completed.* |
| Storage: | Wasabi-backup |
| Keep for: | 1 Week |

Add Stage ▼      Edit

Help            OK      Cancel

4.6. To run a manual backup, select the required server. Click on "Jobs --> Run Next Backup Now".

4.7. The Backup process starts displaying the progress.

4.8. The backup job will create a number of folders in your bucket on Wasabi, for example, you might see a structure as shown below.
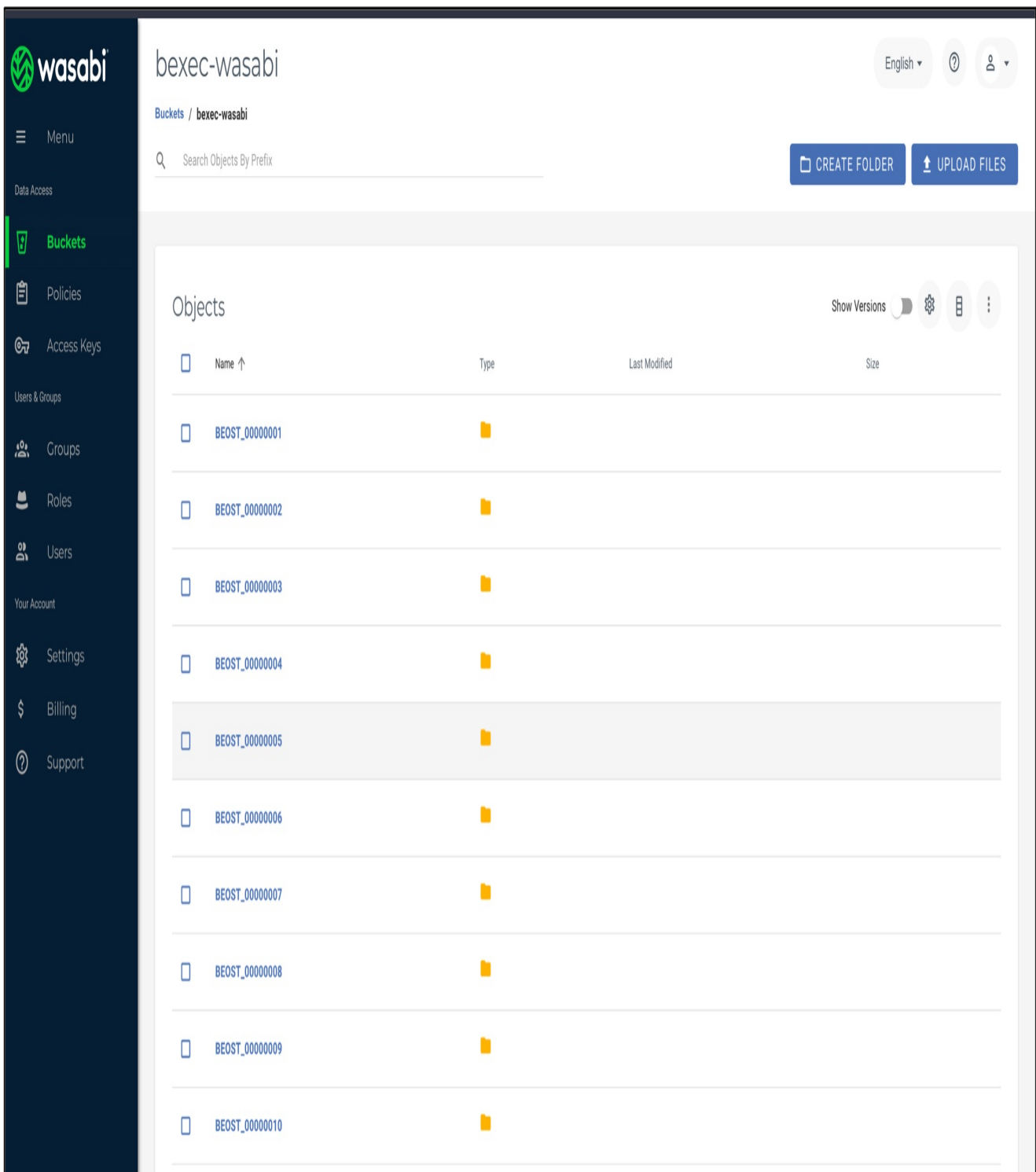
# 5. Immutability

Starting in Version 22.2 or later the ability to backup to Object Lock enabled/Immutable bucket is now supported for Wasabi.

For more detail please refer to the Hardware and Cloud Storage Compatibility List

To create an Object Lock Volume you will need to utilize the MSDP Cloud Admin command line tool.

5.1 Run and Open Command Prompt (CMD) as an Administrator

Administrator: Command Prompt

```
Microsoft Windows [Version 10.0.17763.737]
(c) 2018 Microsoft Corporation. All rights reserved.

C:\Users\Administrator>
```

5.2 Navigate to the installation of Veritas Backup Exec folder.

| Plaintext | Copy |
|-----------|------|

```
cd "Program Files\Veritas\Backup Exec"
```

Administrator: Command Prompt

```
Microsoft Windows [Version 10.0.17763.737]
(c) 2018 Microsoft Corporation. All rights reserved.

C:\Users\Administrator>cd "c:\Program Files\Veritas\Backup Exec

c:\Program Files\Veritas\Backup Exec>
```

5.3 Run the following commands:

Input your Wasabi Access Key and Secret key between in place of and

| PowerShell | Copy |
|------------|------|

```
set MSDPC_ACCESS_KEY=

set MSDPC_SECRET_KEY=

set MSDPC_PROVIDER=wasabi

set MSDPC_ENDPOINT=s3.us-east-2.wasabisys.com

set MSDPC_REGION=us-east-2
```

**Note** : This configuration example discusses the use of Wasabi's us-east-2 storage region. To use other Wasabi storage regions, please use the appropriate Wasabi service URL as described in our Wasabi Service URLs.

5.4 Run the following command to create your object lock bucket and volume:

--**bucket** is used to specify the bucket name

--**volume** is used to specify the volume name ( use the same name while configuring the storage in backup exec)

--**mode** is used to specify the retention mode: COMPLIANCE or GOVERNANCE **(**Backup Exec supports only the GOVERNANCE mode.**)**

--**max** is used to specify the max lock duration: number plus 'D' or 'Y', such as 12Y means 12 years

--**min** value, -N value    min lock duration in days 'D'/years 'Y', such as 12D means 12 days

--**live** is used to specify the time frame for which the volume will be enabled for retention lock i.e. its live until date (example, 2021-08-18, format:'YYYY-MM-DD', clock is set:'00:00:00', timezone is set:'UTC'

| Plaintext | Copy |
|---|---|

```
msdpcldutil.exe create --bucket veritasbackup-objectlock --volume
objectlock --mode COMPLIANCE --min 1D --max 3D --live 2023-06-30
```

Successful Creation will result in the following:



5.6 You can log into your Wasabi Console and verify that the Bucket and Volume were created as well.
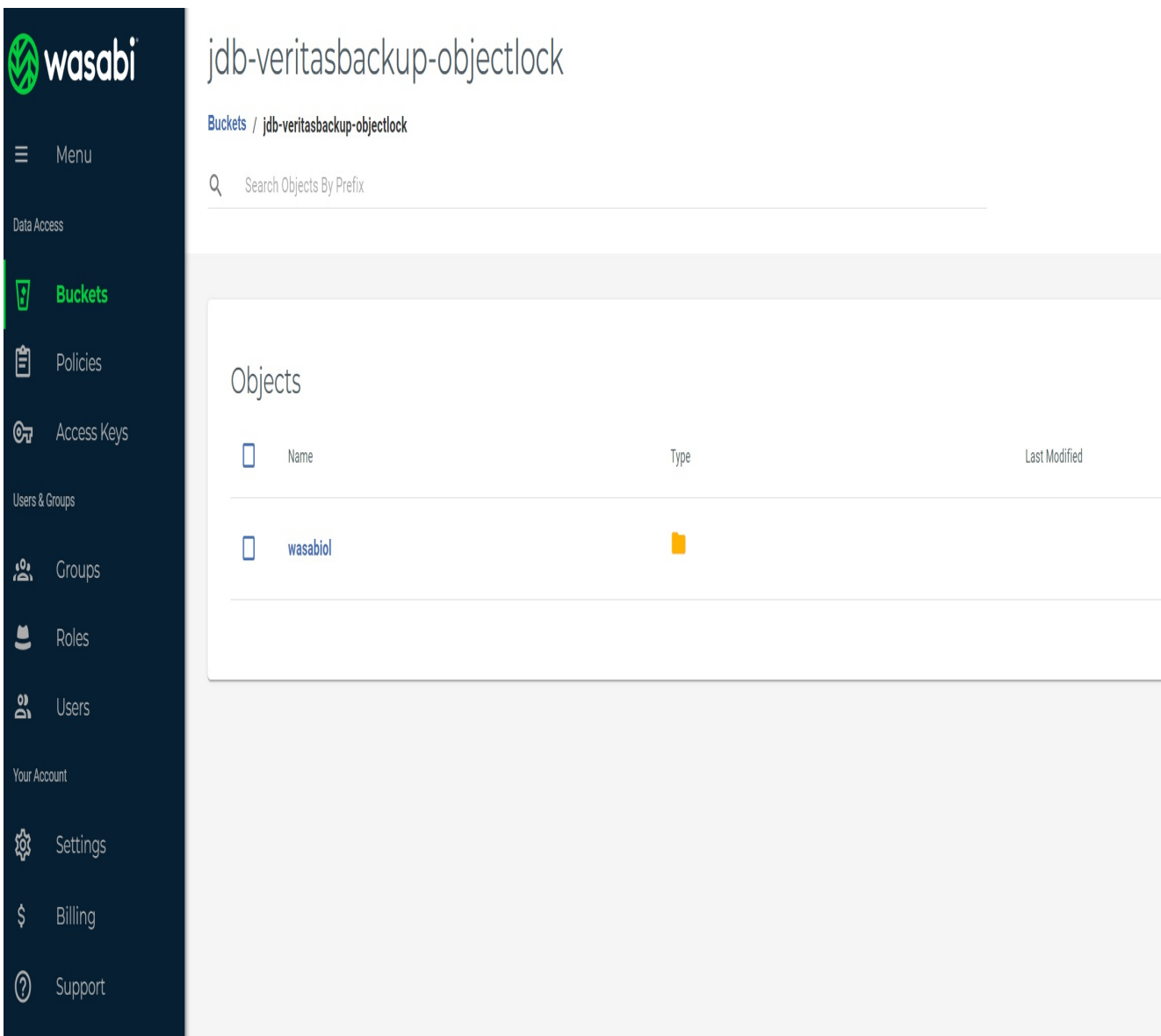
5.7 Go to the Backup Exec Console and click on "Storage" and then click on "Configure Cloud Storage".
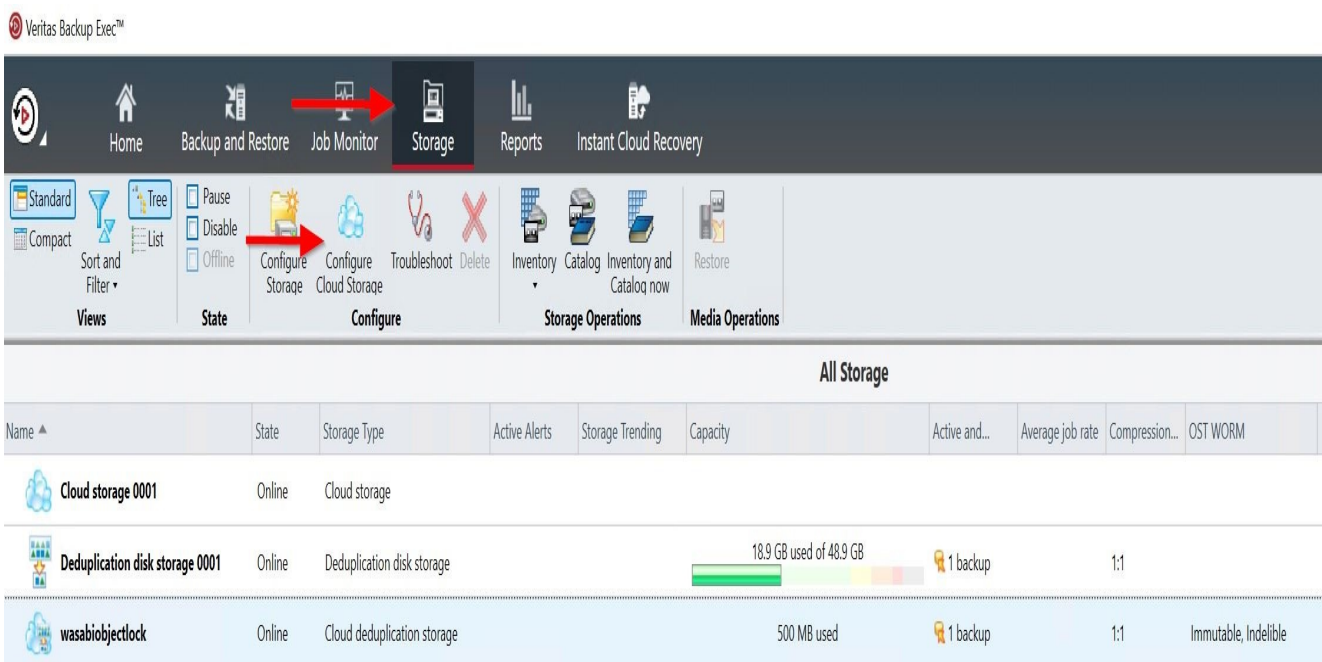


5.8 On the configuration screen input the name of the Volume that you created in the steps above.

5.10 Click "Next"

# What name and description do you want to use for the cloud storage device?

Name: wasabiol

Description:

☑ Enable deduplication to cloud storage

☐ Enable encryption

☐ I want to import an existing Cloud Deduplication Storage

ⓘ Refer to the Backup Exec Administrator's Guide before you create the Cloud Deduplication Storage or you can also refer to the following technote

ⓘ To create Write Once, Read Many (WORM) enabled backup sets on Amazon S3 cloud storage, refer to the following technote

Next >    Cancel

5.11 Click on "S3" and then click on "Next"

# Which provider for the cloud storage device do you want to use?

Azure

S3

ⓘ Some cloud storage providers require encryption to be enabled when backup jobs or duplicate jobs are targeted to cloud storage. For details about why you should encrypt backup data when targeting jobs to cloud storage, see the technote: 000095780

ⓘ The Verify option is disabled by default for backups targeted to cloud devices as cloud storage providers may charge for reading data from the cloud during verification. To enable the option, go to the Verify tab and select the appropriate option to verify data. If you retarget existing backup jobs to cloud storage, ensure that the verify option is not enabled. Backup Exec complies with data integrity mechanisms for cloud transfer. For more information refer to the technote: 000108140

ⓘ To add a new S3 cloud instance using the Generic S3 Configurator tool, click here

What do I need to configure to use cloud storage?    < Back    Next >    Cancel

5.12 Select "Wasabi" from the Cloud Storage Dropdown menu

5.13 Select your Wasabi Logon credentials that you made in Section 2 Steps 7-9.

5.14 Click on "Next"

# What is the connection information for the cloud storage device?

Cloud storage: Wasabi

Logon account: wasabi    Add/Edit

ⓘ It is recommended that you select or create a logon account that is used exclusively for the cloud device. The account should not be used for any other purpose and should not contain credentials that are subject to password update policies.
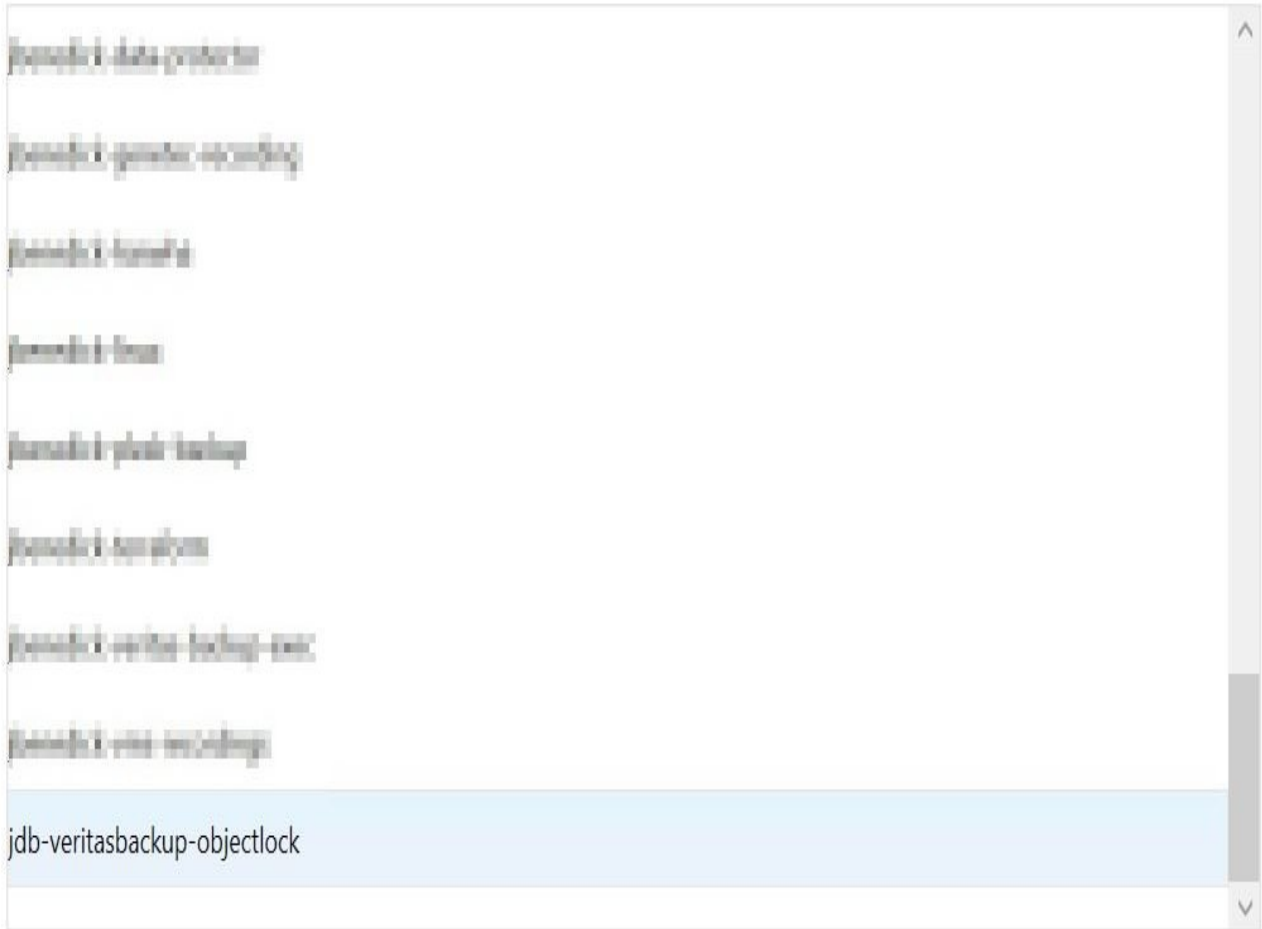
&lt; Back    Next &gt;    Cancel

5.15 Choose the bucket in the list you created from the previous steps and click on "Next"

# Which logical storage unit do you want to use?



jdb-veritasbackup-objectlock

[ < Back ] [ Next > ] [ Cancel ]

5.16 Select how many concurrent operations you wish to have and click "Next"

# How many concurrent operations do you want to let run at the same time on this cloud storage device?

Concurrent operations: [ 2 ]

ℹ This setting determines how many jobs can run at the same time on this device. The number of jobs that this device can handle varies depending on your hardware and environment, so you may need to adjust this setting later. It is recommended that you set it low enough to avoid overloading your system, but high enough to process your jobs in a timely manner.

[ < Back ] [ Next > ] [ Cancel ]

5.17 Review your settings and then click on "Finish"

## Storage configuration summary

| Name and description for the cloud storage device | | ⌃ |
|---|---|---|
| Name: | wasabiol | |
| Description: | | |

| Encryption details | | ⌃ |
|---|---|---|
| Encryption enabled: | No | |

| Provider name | | ⌃ |
|---|---|---|
| Cloud provider name: | S3 | |

| Connection information | | ⌃ |
|---|---|---|
| Cloud server name: | wasabi:wasabi.com | |
| Logon account: | wasabi | |

| Bucket / Storage container | | ⌃ |
|---|---|---|
| Storage location: | jdb-veritasbackup-objectlock | |

| Number of concurrent operations allowed | | ⌃ |
|---|---|---|
| Concurrent operations: | 2 | |

[ < Back ]  [ Finish ]  [ Cancel ]

5.18 Next you can follow the steps listed in Section 4 for Creating a backup job and select your Object lock Cloud Storage to backup to.

# Appendix - Adding Support for Wasabi

In order to use Wasabi with Backup Exec v22, two files - **CloudProvider.xml** and **CloudConnectorCfg.xml** need to be downloaded and applied to the Backup Exec server. This configuration will provide Wasabi as a dropdown option.

Please follow the steps included in the Veritas technote to apply these xml files.