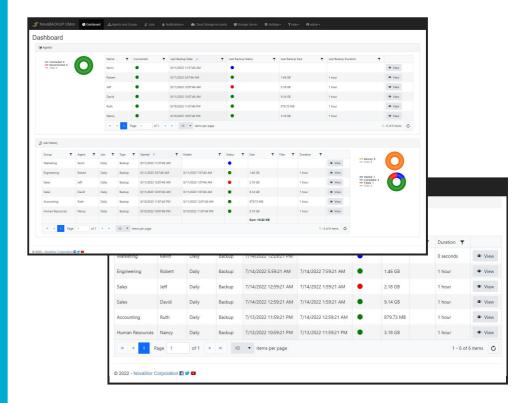


NovaBACKUP® CMon v21.0

User Manual



Features and specifications are subject to change without notice.

The information provided herein is provided for informational and planning purposes only.

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Introduction

Thank you for choosing NovaBACKUP® CMon by NovaStor

CMon (Central Monitoring Console) is an application that works along side your NovaBACKUP PC, Server, and Business Essentials backup software. The CMon can be utilized to monitor the associated backup jobs in your entire backup environment, all from a single pane of glass style website interface. CMon is accessible via web browser and can be viewed via Internet Explorer 9+, Google Chrome, Mozilla Firefox as well as most smart phone web browsers.

NovaBACKUP® CMon is composed of 2 components.

- 1. The CMon (Central Monitoring Console) application enables the capability to monitor backup agents from any edition of NovaBACKUP® PC, Server, or Business Essentials, **version 18.0** and above. Typically CMon is installed on a Windows Server machine which does not have NovaBACKUP backup software installed on it. CMon can run on the same server that NovaBACKUP backup client is installed but it may perform better on a separate server. Read the System Requirements section for more information.
- 2. Your installations of NovaBACKUP® PC, Server and Business Essentials, version 18.0 or higher, which are installed on your systems to backup critical data, such as SQL and Exchange databases, as well as virtual environments. This quick start guide will describe how to setup the CMon, along with how to connect one installation of NovaBACKUP® (referred to as an agent) to the CMon. Subsequent installations of NovaBACKUP® PC, Server and Business Essentials will require configuration to connect to the CMon in the same manner.

System Requirements

Hardware

- Intel **Dual Core** CPU or better
- 4 GB of RAM minimum
- 3 GB free hard drive available space on OS drive

Operating System

- Microsoft Windows Server 2012 R2
- Microsoft Windows Server 2016
- Microsoft Windows Server 2019
- Microsoft Windows Server 2022

Microsoft .NET Framework

Microsoft .NET Framework 4.7.2 or higher

SQL Server (Required)

Microsoft SQL Server is required in CMon 19.8+.

- Microsoft SQL Server 2022 Download Microsoft SQL Server 2022 Express □
- Microsoft SQL Server 2019 Download Microsoft SQL Server 2019 Express →
- Microsoft SQL Server 2017
- Microsoft SQL Server 2016
 - Download Microsoft SQL Server 2016 SP2 Express →
- Microsoft SQL Server 2014

How to determine the version, edition, and update level of SQL Server and its components

Web Server (Required)

IIS, "IIS 6 Management Compatibility", and "Application Initialization" Windows features.

Networking

TCP/IP network

Web Browser

- Modern HTML5 supported desktop web browsers such as Internet Explorer 9 and above, Chrome, Firefox, Safari, Opera, Edge
- Modern HTML5 supported mobile web browsers such as Android 5.0, iOS 9.0, Windows 10, BlackBerry 10, Opera Mobile, Amazon Silk

Note: To test HTML5 compatibility with your current browser please test it here: https://html5test.com/. A points score closer to 500 is optimal.

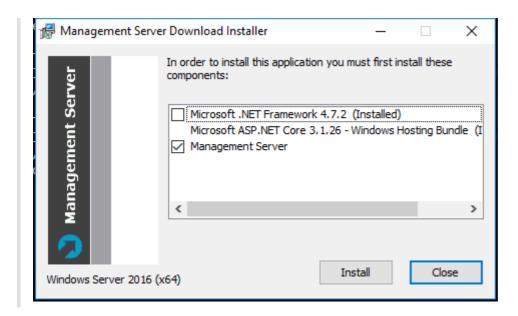
Installation

Please make sure the machine meets the System Requirements before continuing.

Run the setup executable to begin the installation wizard.

Download Installer

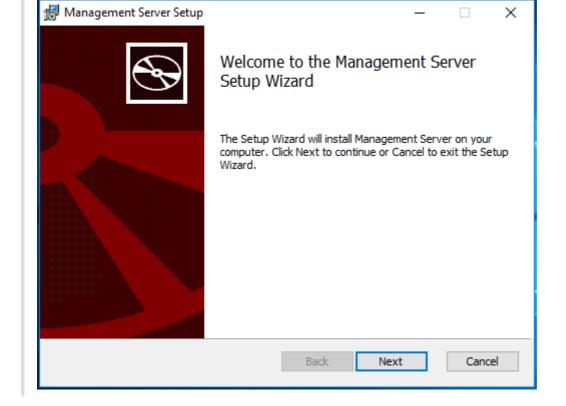
The Download Installer dialog indicates the missing required prerequisites and automatically downloads and installs them.



Click the Install button to continue.

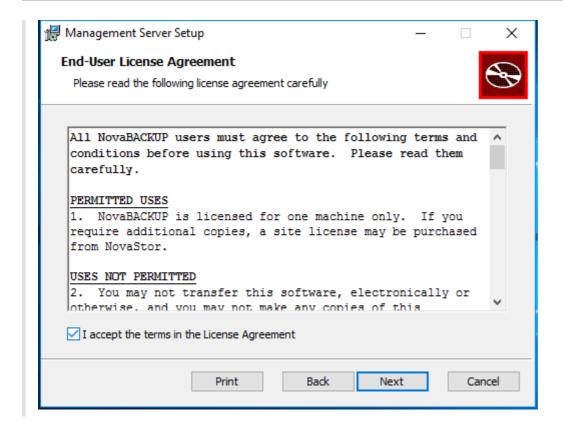
Welcome

After the prerequisites are installed, the CMon installation wizard's Welcome dialog is displayed.



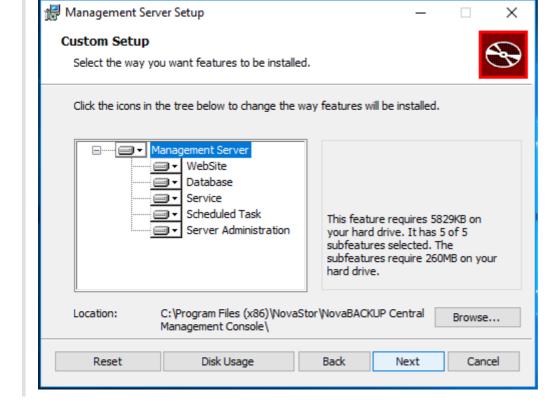
Click the Next button to continue.

End-User License Agreement



Check-mark the I accept the terms in the License Agreement check-box and click the Next button to continue.

Custom Setup

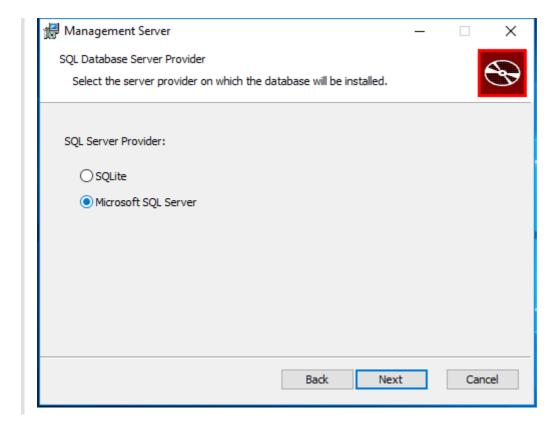


Click the Next button to continue.

SQL Database Server Provider

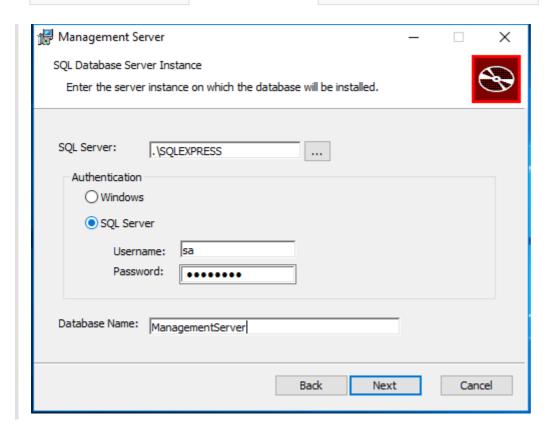
Select the server provider on which the database will be installed.

It is required to select Microsoft SQL Server in CMon 19.8+. Do not select SQlite.

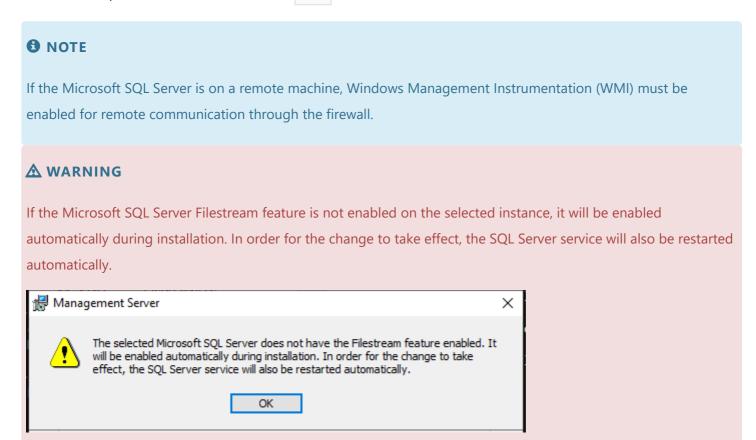


Click the Next button to continue.

If Microsoft SQL Server was selected, the SQL Database Server Instance dialog is displayed.

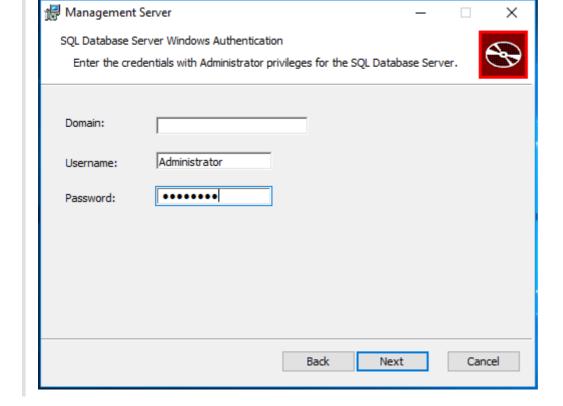


Enter the required values and click the Next button to continue.



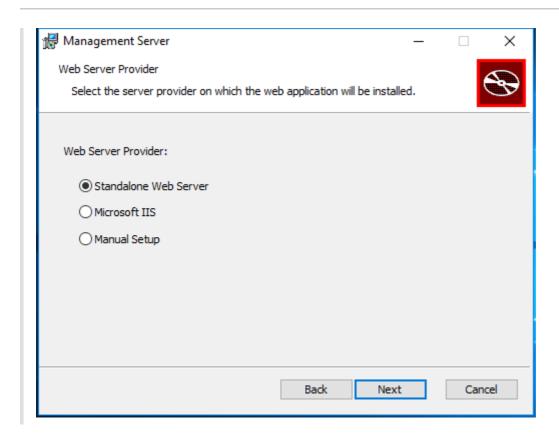
SQL Database Server Windows Authentication

If Microsoft SQL Server was selected, the SQL Database Server Windows Authentication dialog is displayed.



Enter the required values and click the Next button to continue.

Web Server Provider



Select the server provider on which the web application will be installed.

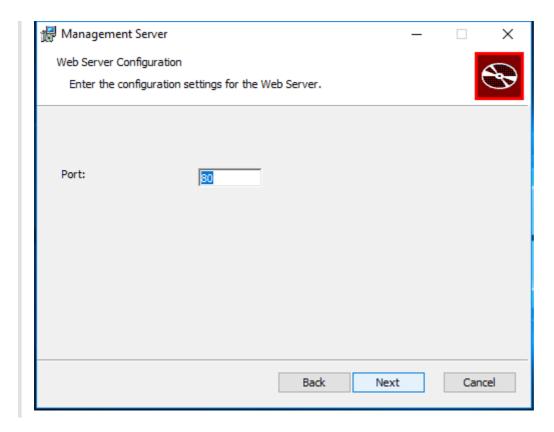
Microsoft IIS is recommended for better performance, an improved experience, and greater security.

Web Server Configuration

If Standalone Web Server is selected, the Web Server Configuration dialog is displayed.

The setup installer will automatically open this port on the Windows firewall.

Make sure network traffic on the selected port is allowed to enable accessing the CMon web application from a web browser.

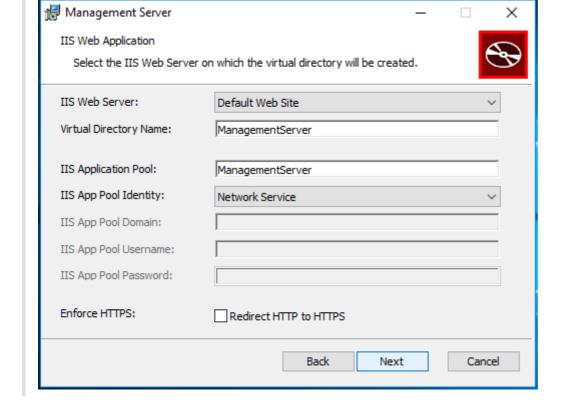


Click the Next button to continue.

IIS Web Application

If Microsoft IIS was selected, the IIS Web Application dialog is displayed.

Make sure network traffic on the web server ports are allowed to enable accessing the CMon web application from a web browser.



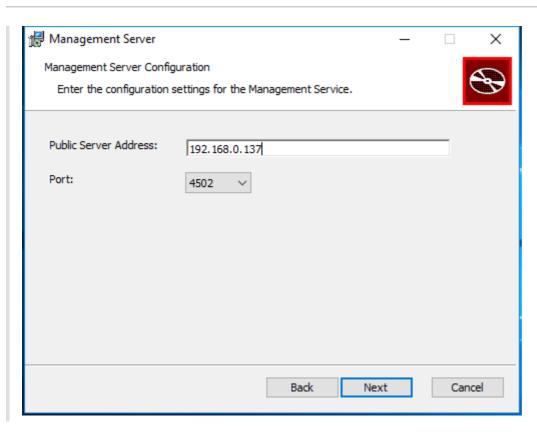
Check-mark the Redirect HTTP to HTTPS check-box to enforce requests to use HTTPS.

Using HTTPS is recommended for greater security.

The IIS Web Site in Microsoft IIS must be configured to support HTTPS.

Enter the required values and click the Next button to continue.

Management Server



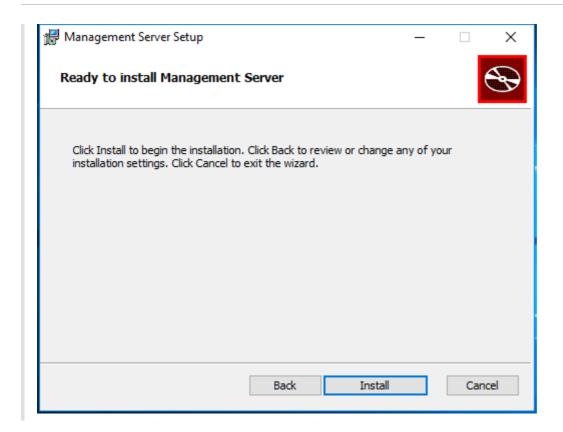
The Public Server Address (IP address, DNS, or computer name) and Port need to be configured in backup client agents in order to connect to CMon.

The setup installer will automatically open this port on the Windows firewall.

Make sure network traffic on the selected port is allowed to enable backup client agents from communicating with the CMon service.

Click the Next button to continue.

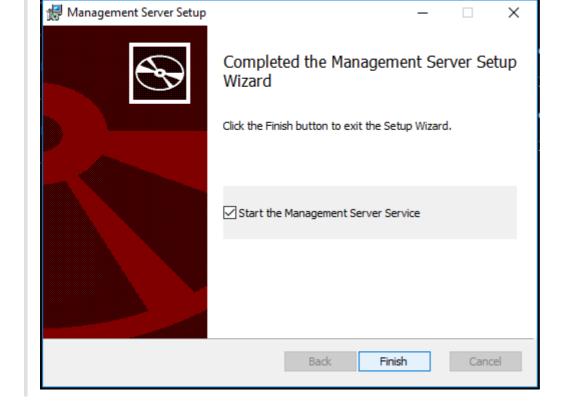
Ready to Install



Click the Install button to start the installation.

Finish

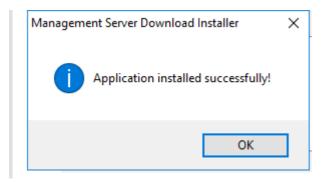
After a successful installation, the Finish dialog is displayed.



Check-mark the check-boxes to start the required services.

Click the Finish button to exit the installation.

Application Installed Successfully



Click the OK button to close the installer.

Next Steps

Logging in

Setting up the backup client

Setup Installer Command Line Options

Silent installation

The setup installer will automatically install the pre-requisites appropriate for the target operating system.

O NOTE

If the Microsoft SQL Server is on a remote machine, Windows Management Instrumentation (WMI) must be enabled for remote communication through the firewall.

A WARNING

If the Microsoft SQL Server Filestream feature is not enabled on the selected instance, it will be enabled automatically during installation. In order for the change to take effect, the SQL Server service will also be restarted automatically.

Command Line Arguments

/? Or /help

Display a help screen.

/ConfigFile [path]

Optional configuration file name and location, defaults to configuration.xml in the same location as the dotNetInstaller executable.

/i

Install components (default).

/x

Uninstall components.

/q

Forces silent UI mode, overriding the configuration's ui_mode attribute.

/qb

Forces basic UI mode, overriding the configuration's ui_mode attribute. A basic UI mode shows progress dialogs but does not require any user interaction.

/nq

Forces full UI mode, overriding the configuration's ui_mode attribute.

/nosplash

Do not display splash screen.

/noreboot

Do not actually reboot Windows even if a reboot was required by a component or the user chooses to reboot when prompted.

/noRunOnReboot

Do not actually write the RunOnReboot registry key if a reboot is required by a component or the user chooses to reboot when prompted.

/CompleteCommandArgs

Specify additional arguments for the complete_command. For example, if your complete command is an MSI this lets you pass additional parameters.

/Log

Creates a log file during installation with information and errors useful for debugging. You can find this file in the user temporary directory with the name dotNetInstallerLog.txt (eg. C:\Documents and Settings\YOUR_NAME\Local Settings\Temp\dotNetInstallerLog.txt). Its location and name can be specified with /LogFile.

/LogFile [path]

Optional log file name and location.

/ExtractCab

If this package contains an embedded CABs, extract all contents under a new folder called SupportFiles in the current directory.

When specified, all other options are ignored and no installations are run.

/DisplayCab

If this package contains an embedded CAB, display its contents.

/DisplayConfig

Display the complete list of configurations and components without checking processor architecture or Icid.

/ComponentArgs "*|id|display_name":"value"

Additional component parameters.

This enables passing additional command-line arguments to all (*) or specific components by their id and/or display_name, in this order.

The value is appended to both non-silent and silent command lines of msi and cmd type components. The component id or display_name must match exactly the one in the configuration.xml.

O NOTE

To insert values with spaces use a double-quote.

Quotation marks should be escaped when inserting them on the command line.

/ControlArgs "id":"value"

Additional user-defined control parameters.

This enables overriding user control values.

O NOTE

Note that if multiple user controls are declared with the same id the parameter applies to all. Control arguments applied to user controls that don't exist are ignored.

Exit Codes

CODE	DESCRIPTION
0	Success.
-1	Any non-specific error.
-2	User pressed Cancel in the main dialog.
3010	A reboot was required.
Any other non- zero value	Error code of a failed component. This is the msiexec return code for msi components and process exit code for cmd components.

UI Tricks

Holding the keyboard Control key and double-clicking on a bootstrapper component in the components list will install it, regardless of whether the component is selected or not.

Holding the keyboard Shift key and double-clicking on a bootstrapper component in the components list will toggle it's selected state, regardless of whether the component is required or not.

Setup installer components

- Windows Server 2012 R2 Update (KB2919442) (x64)
- Windows Server 2012 R2 Update (KB2919355) (x64)

- Microsoft .NET Framework 4.7.2
- Microsoft ASP.NET Core 3.1.26 Windows Hosting Bundle
- Microsoft ASP.NET Core 8.0.0 Windows Hosting Bundle
- Microsoft Visual C++ 2015 2022 Runtime (x86)
- Microsoft Visual C++ 2015 2022 Runtime (x64)
- Management_Server

MSI properties

ROPERTY NAME	VALUES
QL_SERVER_PROVIDER	System.Data.SQLite (Default) System.Data.SqlClient
L_SERVER_USER	
_SERVER_PASSWORD	
SERVER_DOMAIN	
L_USER	
QL_PASSWORD	
QL_SERVER	
L_DB_NAME	ManagementServer (Default)
L_WINDOWS_AUTH	True (Default) False
S_SERVER	
S_VIRTUAL_DIRECTORY	ManagementServer (Default)
IS_SERVER_WEB_SITE	
IS_SERVER_PORT	
S_SERVER_HEADER	

PROPERTY NAME	VALUES
IIS_APP_POOL	ManagementServer (Default)
IIS_APP_POOL_IDENTITY	networkService (Default) localService localSystem other
IIS_APP_POOL_USERNAME	
IIS_APP_POOL_DOMAIN	
IIS_APP_POOL_PASSWORD	
INSTALLLOCATION	
MANAGEMENT_SERVER_PUBLIC_SERVER_ADDRESS	
MANAGEMENT_SERVER_PORT	4502 (Default)
WEB_SERVER_PORT	80 (Default)
STANDALONE_WEB_SERVER_STARTMODE	Automatic (Default) Manual Disabled
WEB_SERVER_PROVIDER	XSP (Default) IIS Manual
CROSS_DOMAIN_SUPPORT	RequireOutOfBrowser (Default) EnablePolicyServer UseIIS
ENABLE_DATABASE_VERBOSE_LOGGING	False (Default) True
LICENSE_NAME	
LICENSE_COMPANY_NAME	

PROPERTY NAME	VALUES
LICENSE_EMAIL_ADDRESS	
LICENSE_KEY	K34XS-NWECL-ECF5TM-3KASY-5P8JD (Default)
SERIAL_NUMBER	
LICENSE_TYPE	Evaluation IHaveALicenseKey (Default)
OFFLINE_ACTIVATION	False (Default) True
LICENSE_OFFLINE_ACTIVATION_KEY	
ENFORCE_HTTPS	false (Default)

Examples

Create a log of the msi setup installer

```
"Setup Installer.exe" /ComponentArgs "Management_Server":"/1*v c:\setuplog.txt"
```

In this case, the msi log file will be created as c:\setuplog.txt.

Silently install CMon using the standalone web server and an SQLite database

```
"Setup Installer.exe" /ComponentArgs "Management_Server":"/q /1*v c:\setuplog.txt
LICENSE_NAME=Name LICENSE_COMPANY_NAME=CompanyName
LICENSE_EMAIL_ADDRESS=noreply@novabackup.com
MANAGEMENT_SERVER_PUBLIC_SERVER_ADDRESS=192.168.0.2 WEB_SERVER_PROVIDER=XSP
WEB_SERVER_PORT=81 SQL_SERVER_PROVIDER=System.Data.SQLite"
```

Silently install CMon using IIS web server and a Microsoft SQL Server database

```
"Setup Installer.exe" /ComponentArgs "Management_Server":"/q /1*v c:\setuplog.txt
LICENSE_NAME=Name LICENSE_COMPANY_NAME=CompanyName
LICENSE_EMAIL_ADDRESS=noreply@novabackup.com
MANAGEMENT_SERVER_PUBLIC_SERVER_ADDRESS=192.168.0.2 WEB_SERVER_PROVIDER=IIS
IIS_SERVER=\"Default Web Site\" SQL_SERVER_PROVIDER=System.Data.SqlClient
SQL_SERVER=.\sqlServerInstanceName SQL_SERVER_USER=Administrator
SQL_SERVER_PASSWORD=AdministratorPassword SQL_USER=sa SQL_PASSWORD=saPassword"
```

After installation, manually start the "Management Server" service: net start "Management Server"

When using the standalone web server, manually start the Management Web Server service: net start "Management Web Server"

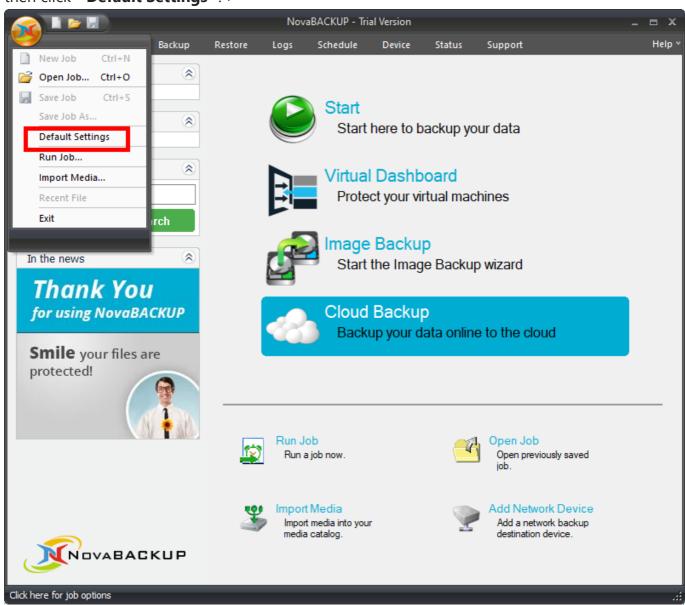
Notes:

After installation, run Start > All Programs > Management Server > Management Server

Setting up the backup client

Now that you have the CMon successfully installed it's time to connect an agent to it. This section will cover how to setup the backup client software to connect to CMon.

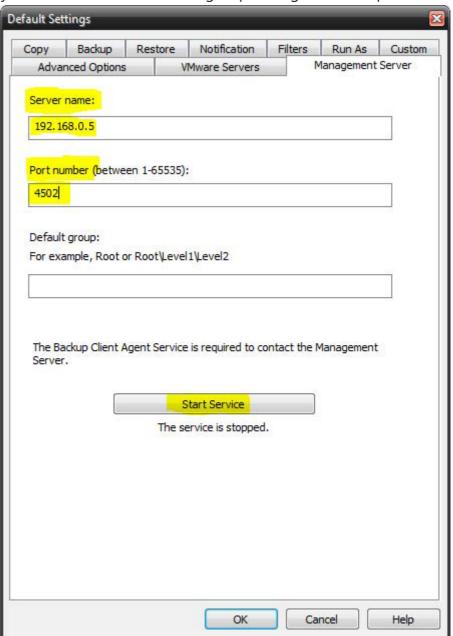
- 1. The first thing you need to do is install a backup client (NovaBACKUP® PC, Server, or Business Essentials) on the machine you'd like to back up. For instructions on how to do this please consult the NovaBACKUP® Quick Install Guide. By accepting all default options during installation, all necessary items will be installed. Once NovaBACKUP® PC, Server, or Business Essentials is installed we need to configure the connection to CMon. NovaBACKUP PC, Server, and Business Essentials clients require a setting to be configured in order for the backup client to become an Agent.
- 2. Start the NovaBACKUP client and click on the Home tab.
- 3. From the main menu click the large circle NovaStor logo button highlighted at the top left, and then click " **Default Settings** ". >



This will open a screen with a series of additional tabs.

4. Once in " **Default Settings** " you will click on the " **Management Server** " tab. You will be required to configure the " **Server name** " and " **Port number** " variables on this screen. Enter the server address or IP address of the machine where CMon is installed in the "**Server name**"

field. Enter the port number CMon is configured to use in the "**Port number**" field. These values should be the same values entered during the CMon installation. The default port number is 4502. The "Default group" option on this screen will automatically place this agent into the group specified on the CMon. In general you do not need to enter anything in the Default Group option at this point. If you do not choose a Default group this agent will be placed in the



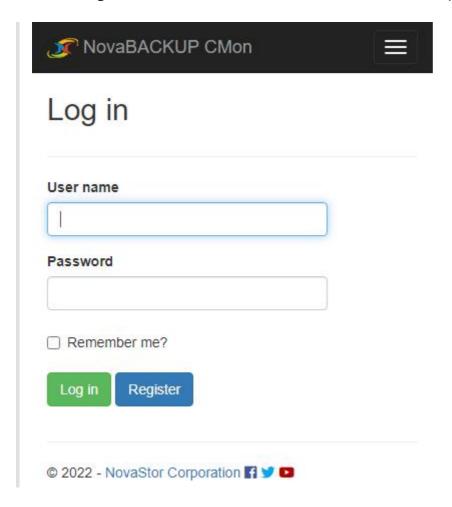
"Pending" group in CMon. >

- 5. Click the "**Start Service**" button to start the service. "The service is started" is displayed when the service has started successfully which is required in order to connect to CMon. Click the "OK" button to save the changes. Now you have the CMon installed, the backup client installed, and the agent connected to CMon. You should now be able to login to the CMon and see the agent.
- 6. To verify the service is an automatically starting service, open up Windows Services. Once in the Services screen, find the service named "Backup Client Agent Service". This is the service that actually connects to the CMon so you can monitor your agent. By default this service is set to Manual, go to the properties of this service and set it to Automatic (Delayed Start), and [Apply]. You may now exit out of Windows Services.
- 7. Additional agents may be connected using these same steps.

Logging In

Logging in to the CMon is as simple as opening a web browser on your computer and browsing to the IP address, DNS name, or computer name along with the port number that you configured during the CMon installation; the default web port is 80. A shortcut to the website is installed on the computer where CMon was installed in the Start Menu in the "NovaStor" group for convenience.

The CMon website should work with any modern web browser including Internet Explorer 9 and above, Google Chrome, Mozilla Firefox as well as most smart phone web browsers.



The default login Username is **admin** with a Password of **admin**.

After logging in for the first time, it's recommended to change your password using the Account Management page.

If the number of times a user fails to log in because of an invalid password exceeds the maximum number configured in the Web Configuration File, the user will be locked out. Use the Users page to unlock an account. To unlock the admin account, use the Server Administration Desktop Application.

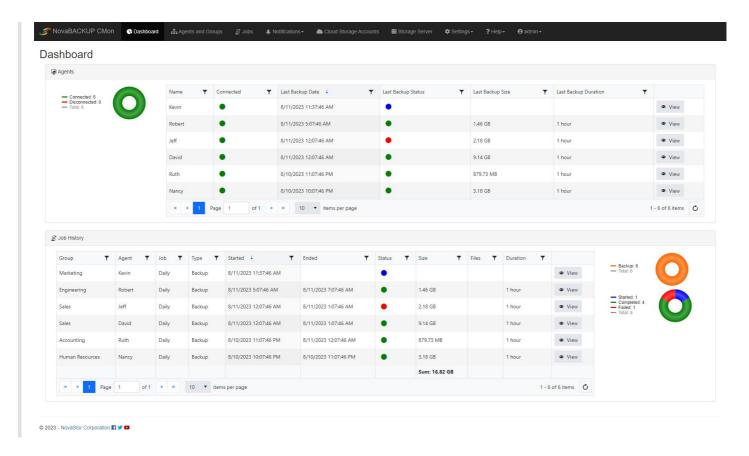
Users logging in or registering from the embedded web browser in the backup client will automatically be redirected to view or create a new cloud storage account if permitted.

If the "Remember me?" check box is checked, a cookie will be created which allows the user to remain logged in for up to 7 days of inactivity by default.

Dashboard

The CMon can be utilized to monitor all of the NovaBACKUP clients and the associated backup jobs in your environment, all from a single pane of glass interface. CMon is accessible via web browser and can be viewed via Internet Explorer 9 +, Google Chrome, Mozilla Firefox as well as most smart phone web browsers.

The **Dashboard** is displayed just after login. It is an overview of your NovaBACKUP environment.



The "Menu" that is displayed on the top of each page shows the various functions that can be quickly accessed. If the browser's width is too narrow, the menu will be collapsed and in order to expand the menu, click on the 3 horizontal lines near the top right corner of the page.

On the Dashboard screen you can perform various functions.

To view more details about a particular NovaBACKUP Agent in your environment, you can double-click on an "Agent" via the Dashboard screen. An Agent is simply a computer that is running NovaBACKUP backup client software that was configured to utilize the CMon application for monitoring.

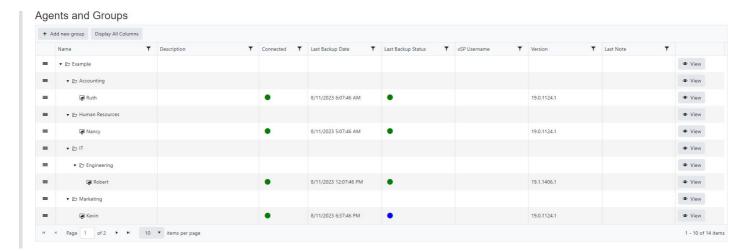
You can hover over the circular pie-chart graphic near the bottom right of the screen to see your job statuses. To display jobs with all of the various types of status including Failed, Successful, Warning, Stopped, and Started jobs.

PERMISSIONS REQUIRED

View Dashboard

Agents and Groups

Agents and Groups is the area in CMon where you will view all of your client software that has been configured to connect to the CMon. You can create Groups here as well as print a Report of the contents of the Agents & Groups area.



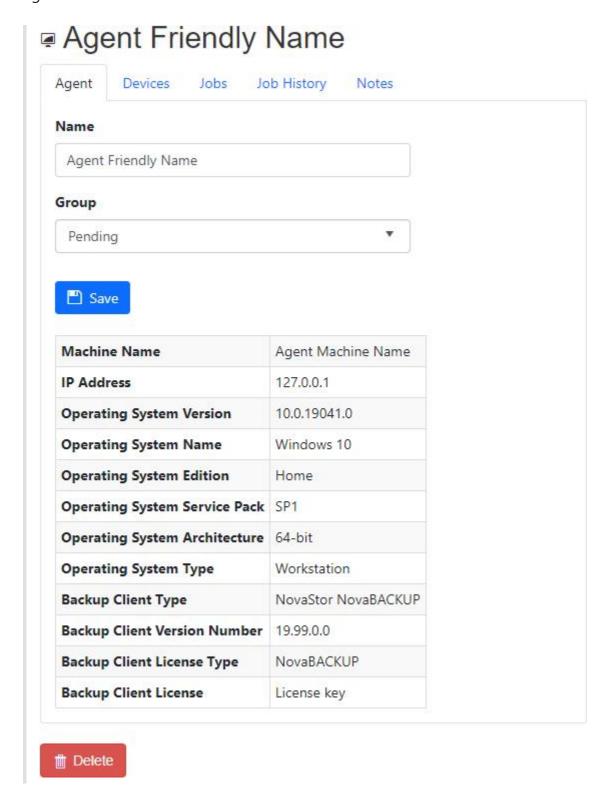
COLUMN NAME	DESCRIPTION
Name	The name of the Group or Agent.
Description	The description for the group.
Connected	Whether the agent is connected or disconnected.
Last Backup Date	The last backup date for the agent.
Last Backup Status	The last backup status for the agent.
xSP Username	NovaBACKUP cloud device user name
Version	The backup client version number.
Operating System Name	The agent operating system name.
Operating System Edition	The agent operating system edition.
Operating System Service Pack	The agent operating system service pack.
Operating System Architecture	The agent operating system architecture.
Operating System Version	The agent operating system version.
Operating System Type	The agent operating system type.

• PERMISSIONS REQUIRED

View Agents and Groups

Agent Details

The Agent details page is used to display the details and edit the name and parent group of an agent.



The 'Name' and 'Parent' fields, Save and Delete buttons are enabled for users with Edit Agents permission.

FIELD NAME	DESCRIPTION
Name	The name of the agent.

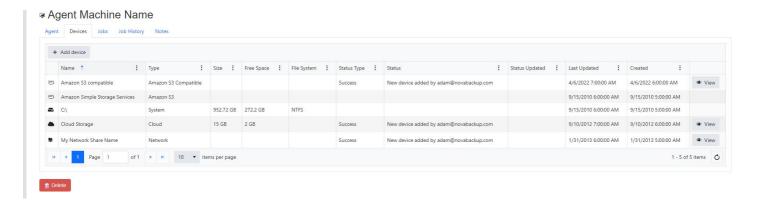
FIELD NAME	DESCRIPTION
Parent	The parent group name of the agent.
Machine Name	The name of the agent machine.
IP Address	The IP address of the agent machine.
Operating System Version	The version of the operating system.
Operating System Name	The name of the operating system.
Operating System Edition	The edition of the operating system.
Operating System Service Pack	The service pack of the operating system.
Operating System Architecture	The architecture of the operating system.
Backup Client Type	The type of the backup client.
Backup Client Version Number	The version number of the backup client.
Backup Client License Type	The license type of the backup client.
Backup Client License	The license key of the backup client.

PERMISSIONS REQUIRED

View Agents and Groups

Agent Devices

The Devices tab of the Agent's details view lists the devices on the agent.



Users with permissions to edit the agent can add a new device.

Double-click on the row or click the View button to view the details of a device.

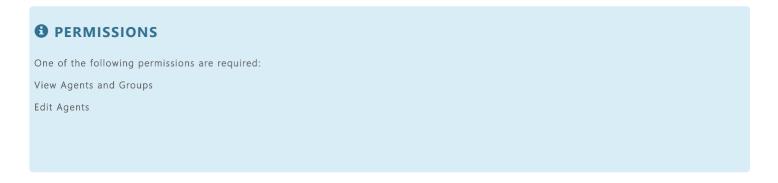
Related Topics

Create Device

View Network Device Details

View Cloud Device Details

View Amazon S3 Compatible Device Details



Create Agent Device

To add a new device, select the type of device in the Create Agent Device view.



A cloud device can only be added if the agent doesn't already have a cloud device because an agent is limited to one cloud device.

If a storage server is configured and the user has permissions to view cloud storage accounts, a cloud device can be added from an existing cloud storage account.



If the agent is disconnected, the device will be pending its addition until the agent reconnects.

If the agent is connected and the backup client service is running, the device will get created immediately.

Related Topics

Create Amazon S3 Compatible Device Create Amazon S3 Compatible Device From Existing Cloud Storage Account Create Cloud Device From Existing Cloud Storage Account Create Cloud Device Create Network Device

• PERMISSIONS REQUIRED

Edit Agents

Create Agent Amazon S3 Compatible Device

Enter the device settings and click the Add Device button to add an Amazon S3 compatible device to the backup client.

Name	
My Amazon S3 compatible device	
URL	
https://s3.novabackup.com	
Access key id	
access key id	
Secret access key	
Bucket name	
bucket name	
User name	
user_name	
Backup directory	
backup_directory	
Domain	
domain	
Machine name	
machine name	
Encryption key	
Confirm encryption key	
Quota in gigabytes	
2039	

An Amazon S3 compatible device created in CMon is considered a "managed" device and will be hidden in the backup client desktop application to prevent end-users from easily changing its

Name

- Required
- Maximum length is 99
- Default value: My Amazon S3 compatible device

URL

- Required
- Maximum length is 256
- Must be in a valid URL format

Access Key Id

- Required
- Maximum length is 128

Secret Access Key

- Required
- Maximum length is 256

Bucket Name

- Required
- Minimum length is 3
- Maximum length is 63

User Name

- Required
- Maximum length is 40
- Only the following characters are valid:
 - 0 0-9
 - o a-z
 - o A-Z
 - o !'()*-._

Backup Directory

Required

39

- Maximum length is 99
- Only the following characters are valid:
 - 0 0-9
 - o a-z
 - o A-Z
 - o !'()*-._

Domain

• Maximum length is 16

Machine Name

• Maximum length is 16

Encryption Key

- Minimum length is 10
- Maximum length is 30

Quota In Gigabytes

- Minimum value is 0
- Maximum value is 2147483647

1 PERMISSIONS REQUIRED

Edit Agents

Create Agent Amazon S3 Compatible Device From Existing Cloud Storage Account

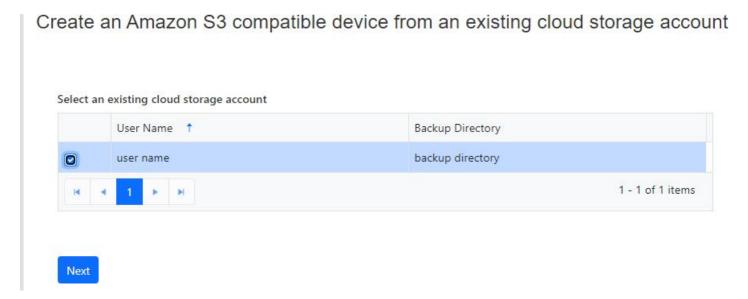
Create Agent Device

To add an Amazon S3 compatible device from an existing cloud storage account, select the appropriate type of device in the Create Agent Device page. An Amazon S3 compatible storage server must exist and the user must have View Cloud Storage Accounts permissions for the Existing Cloud Storage Account item to appear.



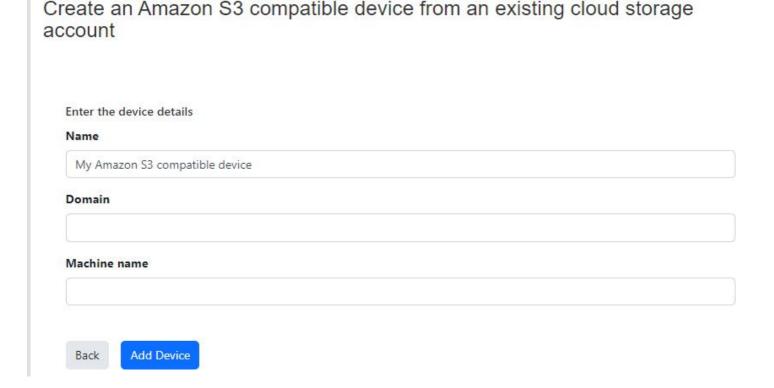
Select an existing cloud storage account

Select the existing cloud storage account and click the Next button to continue.



Device Details

Enter the device details and click the Add Device button to add the device.



Name

- Required
- Maximum length is 99
- Default value: My Amazon S3 compatible device

Domain

• Maximum length is 16

Machine Name

• Maximum length is 16



View Agent Amazon S3 Compatible Device

Users with the Edit Agents role permission may edit and delete the device.

If the device has already been added to the agent, the following fields will be read-only:

- Name
- URL
- Bucket Name
- User Name
- Backup Directory
- Domain
- Machine Name

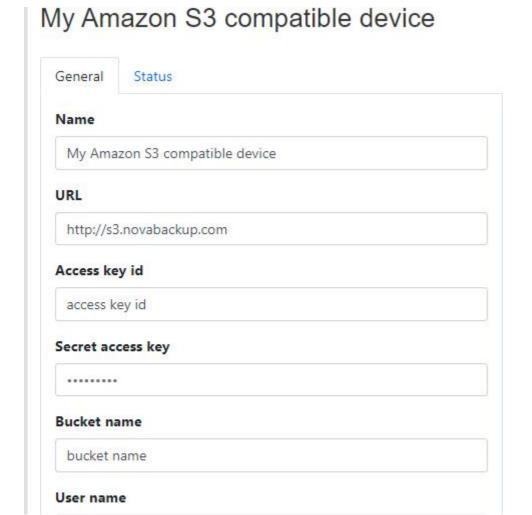
If the device is an unmanaged device, the following fields will be read-only:

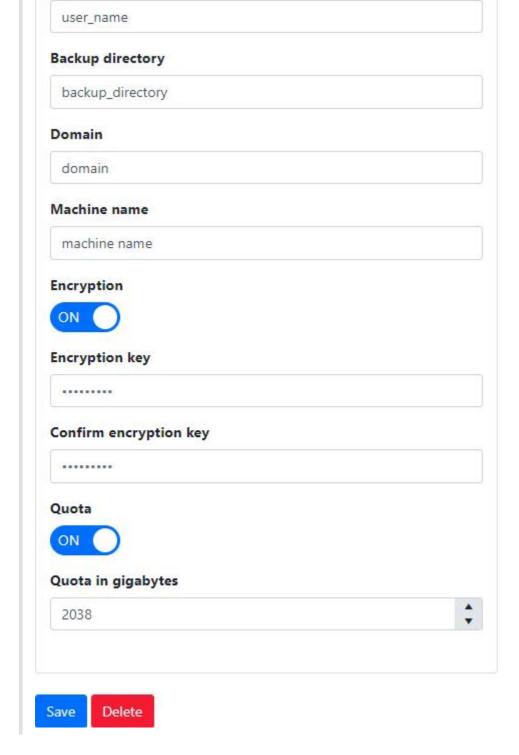
- Quota
- Quota in gigabytes

If the device is marked for deletion, the device is read-only.

The device can't be deleted if it's currently being used as a target destination for a job.

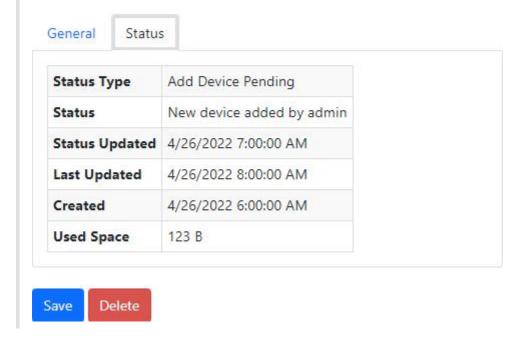
General





Status

My Amazon S3 compatible device



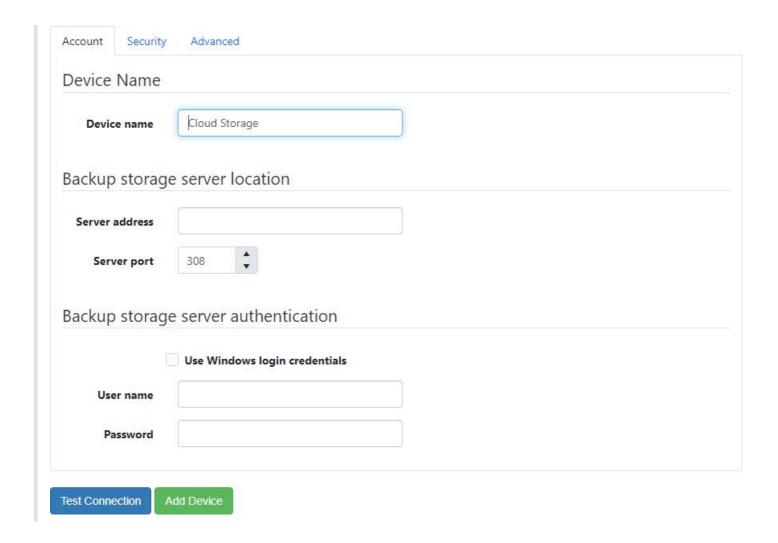


View Agents

Create Agent Cloud Device

To add a cloud device to the backup client, enter the server address and user credentials, and click the Add Device button to create the device.

Account



Device name

- Required
- Maximum length is 99
- Default value: Cloud Storage

Server address

- Required
- Maximum length is 64

Server port

- Required
- Must be between 1 and 65535
- Default value: 308

Use Windows login credentials

• Default value: Do not use Windows login credentials

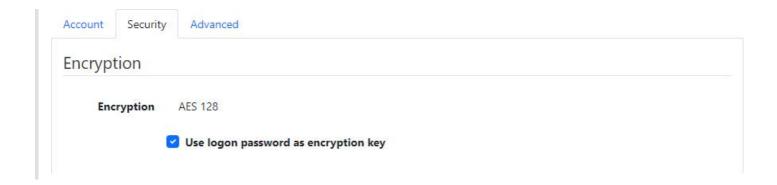
User name

- Required if "Use Windows login credentials" is checked
- Maximum length is 64

Password

- Required if "Use Windows login credentials" is checked
- Maximum length is 64

Security



Use logon password as encryption key

• Default value: Use logon password as encryption key

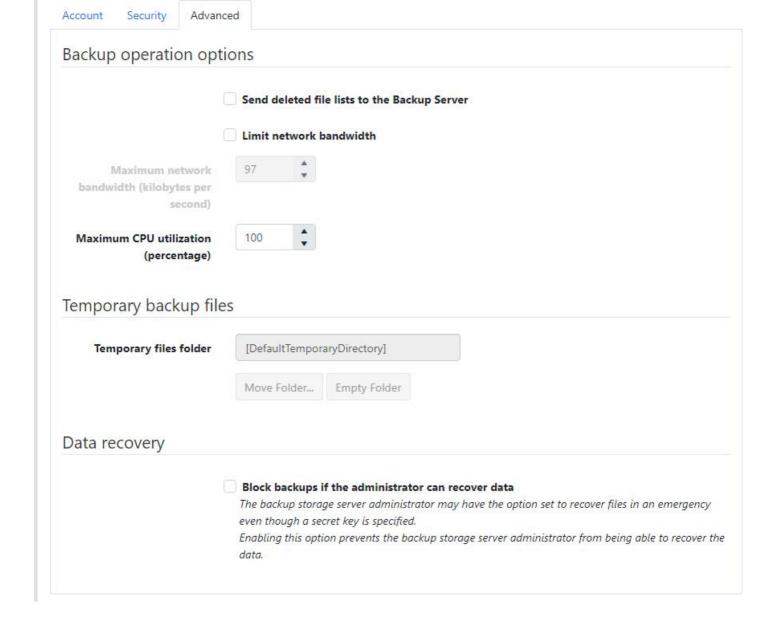
Encryption key

- Required if "Use logon password as encryption key" is checked
- Maximum length is 64

Encryption key hint

Maximum length is 64

Advanced



Send deleted file lists to the Backup Server

Default value: Do not send deleted file lists to the Backup Server

Limit network bandwidth

Default value: Do not limit network bandwidth

Maximum network bandwidth (kilobytes per second)

- Required if "Limit network bandwidth" is checked
- Must be between 1 and 2097151
- Default value: 97

Maximum CPU utilization (percentage)

- Must be between 1 and 100
- Default value: 100

Temporary files folder

Read-only

48

- Default value: [DefaultTemporaryDirectory]
- The default value, [DefaultTemporaryDirectory], will automatically get converted to an actual path after the device is created by the agent (ex.

C:\ProgramData\NovaStor\NovaStor NovaBACKUP\Cloud Storage\Backup)

Block backups if the administrator can recover data

• Default value: Do not block backups if the administrator can recover data

Test Connection

The Test Connection button is available only when the agent is currently connected.

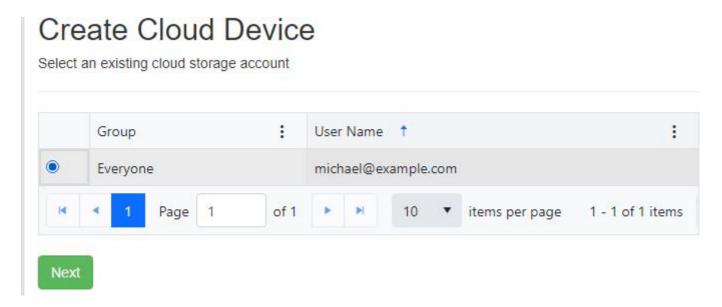
1 PERMISSIONS REQUIRED

Edit Agents

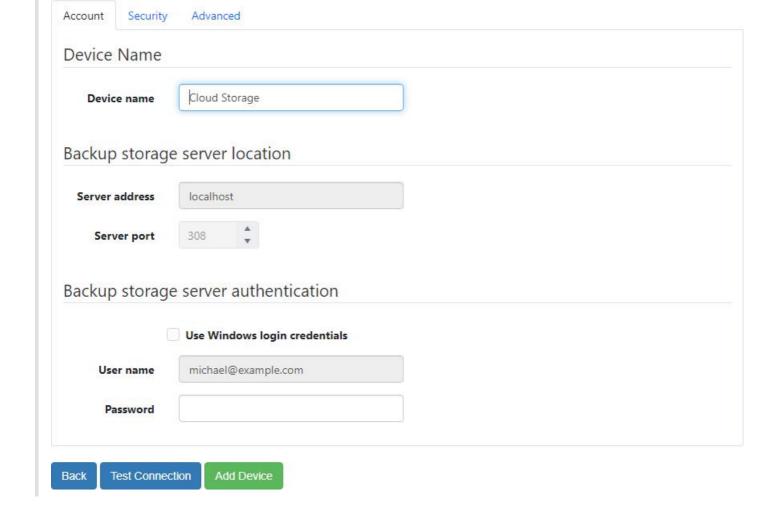
Create Agent Cloud Device From Existing Cloud Storage Account

Select an existing cloud storage account

To add a cloud device from an existing cloud storage account, first select the existing cloud storage account and click the Next button to continue.



Account



Device name

- Required
- Maximum length is 99
- Default value: Cloud Storage

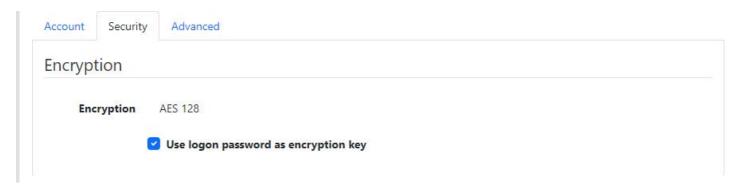
Use Windows login credentials

• Default value: Do not use Windows login credentials

Password

- Required if "Use Windows login credentials" is checked
- Maximum length is 64

Security



Use logon password as encryption key

• Default value: Use logon password as encryption key

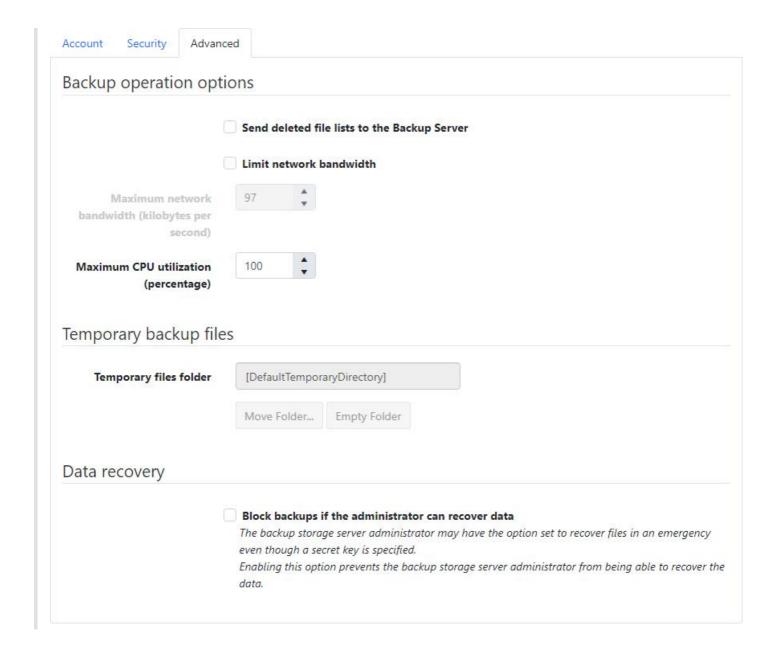
Encryption key

- Required if "Use logon password as encryption key" is checked
- Maximum length is 64

Encryption key hint

• Maximum length is 64

Advanced



Send deleted file lists to the Backup Server

Default value: Do not send deleted file lists to the Backup Server

• Default value: Do not limit network bandwidth

Maximum network bandwidth (kilobytes per second)

- Required if "Limit network bandwidth" is checked
- Must be between 1 and 2097151

• Default value: 97

Maximum CPU utilization (percentage)

- Must be between 1 and 100
- Default value: 100

Temporary files folder

- Read-only
- Default value: [DefaultTemporaryDirectory]
- The default value, [DefaultTemporaryDirectory], will automatically get converted to an actual path after the device is created by the agent (ex.

C:\ProgramData\NovaStor\NovaStor NovaBACKUP\Cloud Storage\Backup)

Block backups if the administrator can recover data

• Default value: Do not block backups if the administrator can recover data

Test Connection

The Test Connection button is available only when the agent is currently connected.

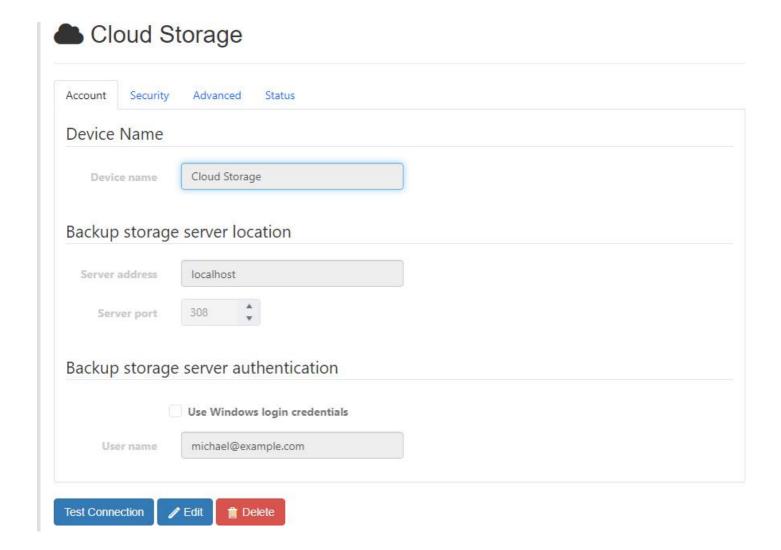
1 PERMISSIONS REQUIRED

Edit Agents

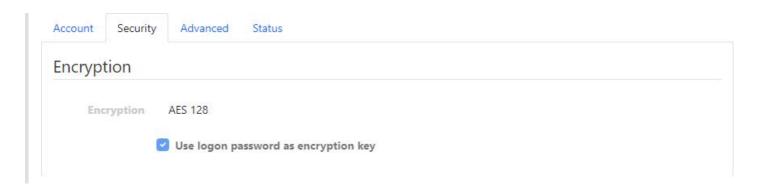
View Cloud Storage Accounts

Cloud Device Details

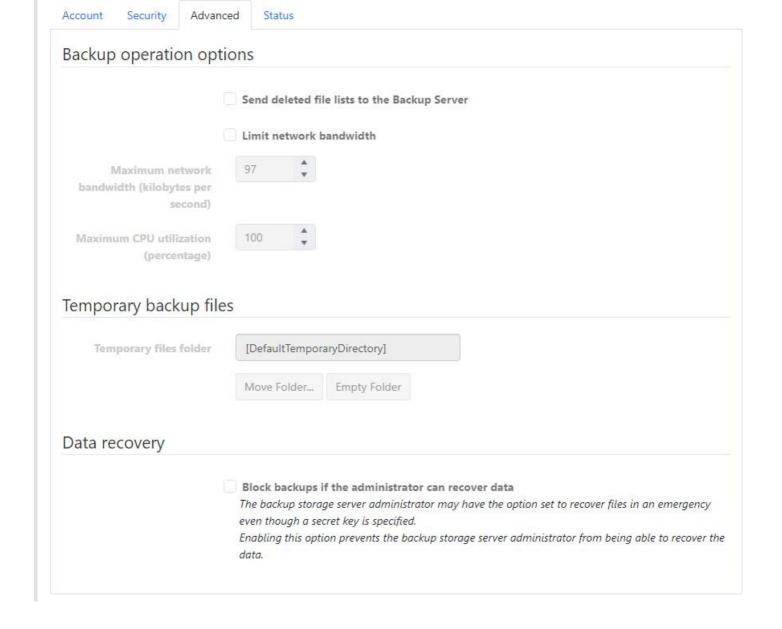
Account



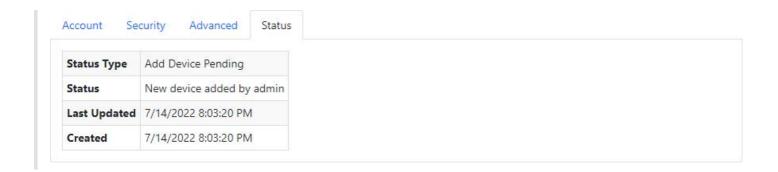
Security



Advanced



Status



Users with the Edit Agents role permission may edit and delete the cloud device. The device can't be deleted if it's currently being used as the destination for a job.

Test Connection

The Test Connection button is available only when the agent is currently connected.

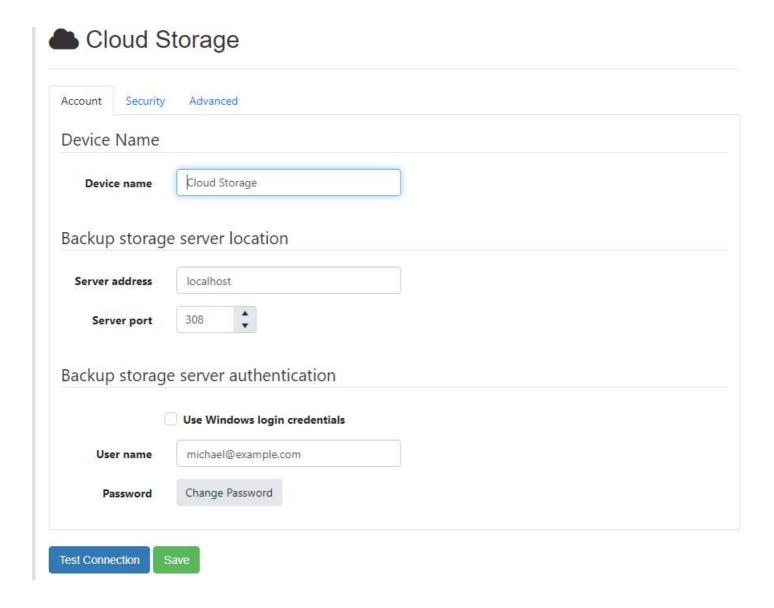
Related Topics

PERMISSIONS REQUIRED

View Agents and Groups

Edit Cloud Device

Account



Device name

- Required
- Maximum length is 99
- Default value: Cloud Storage
- The device name can only be modified if the device hasn't already been added.

Use Windows login credentials

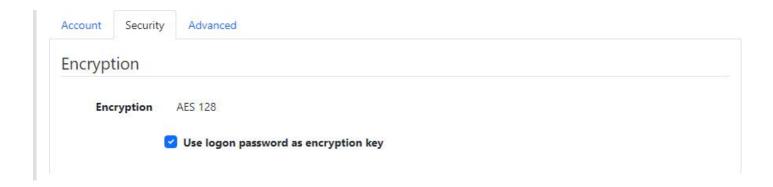
• Default value: Do not use Windows login credentials

User name

- Required if "Use Windows login credentials" is checked
- Maximum length is 64

- Required if "Use Windows login credentials" is checked
- Maximum length is 64

Security



Use logon password as encryption key

• Default value: Use logon password as encryption key

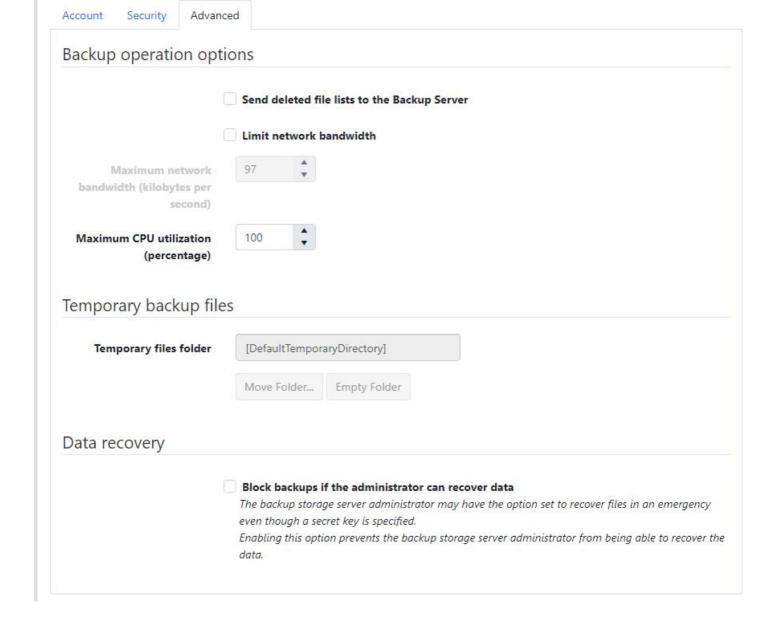
Encryption key

- Required if "Use logon password as encryption key" is checked
- Maximum length is 64

Encryption key hint

• Maximum length is 64

Advanced



Send deleted file lists to the Backup Server

Default value: Do not send deleted file lists to the Backup Server

Limit network bandwidth

Default value: Do not limit network bandwidth

Maximum network bandwidth (kilobytes per second)

- Required if "Limit network bandwidth" is checked
- Must be between 1 and 2097151
- Default value: 97

Maximum CPU utilization (percentage)

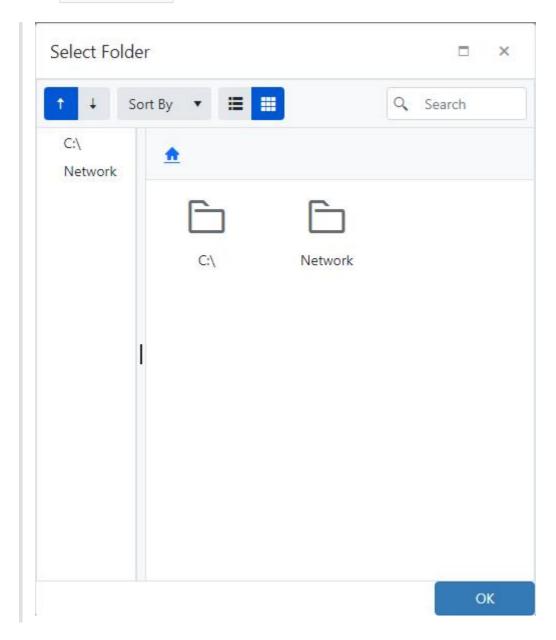
- Must be between 1 and 100
- Default value: 100

Temporary files folder

Required

59

- Maximum length is 256
- Must be a valid Windows path
- If this is a local path and doesn't end with \Backup, \Backup will be appended to it.
- If this is changed to a UNC path, the contents of the previous directory will not be moved.
- The temporary files folder can only be changed after the device has been created on the agent.
- The temporary files folder can only be changed by browsing the file system, with the Move Folder... button, when the agent is connected.



• The temporary files folder can only be emptied, with the Empty Folder button, when the agent is connected.

Block backups if the administrator can recover data

• Default value: Do not block backups if the administrator can recover data

Test Connection

The Test Connection button is available only when the agent is currently connected.

PERMISSIONS REQUIRED

Edit Agents

Create Agent Network Device

To add a new network device, enter the appropriate values in the required fields marked in **bold** and click the Save button.



Device name

- Required
- Must be unique
- Must not equal "Network"
- Maximum length is 99

Path

- Required
- Must begin with a double back slash
- Maximum length is 259

Domain

• Maximum length is 127

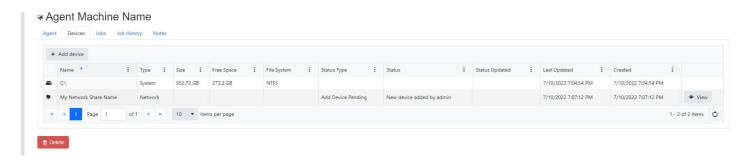
User name

• Maximum length is 127

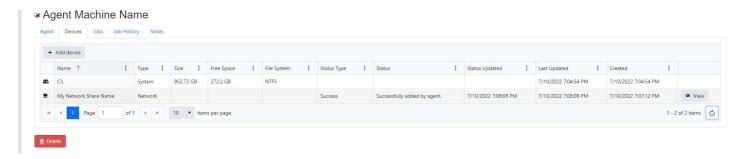
Password

Maximum length is 127

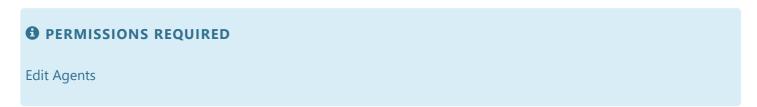
If the agent is disconnected, the device will be pending its addition until the agent reconnects.



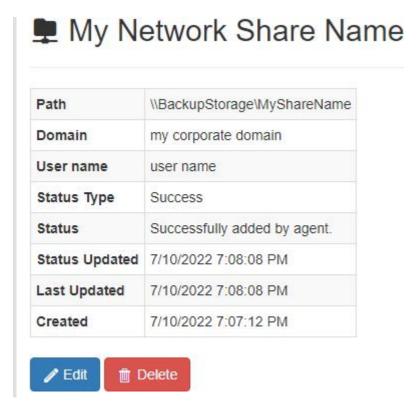
If the agent is connected and the backup client service is running, the device will get created immediately.



The network connection must be available at the time the device is added to the agent.



Network Device Details



Users with the Edit Agents role permission may edit and delete the network device. The device can't be deleted if it's currently being used as the destination for a job.

Related Topics

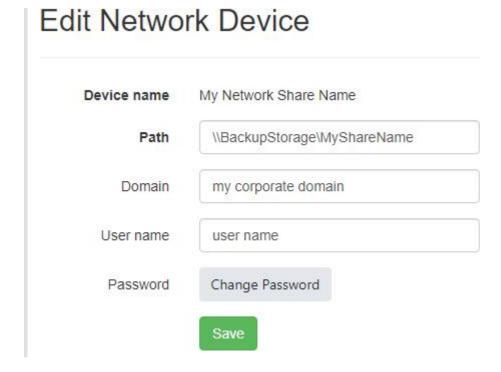
Create Network Device



View Agents and Groups

Edit Network Device

The device name can only be modified if the device hasn't already been added.





Backup clients with versions 19.4 and older may not allow the CMon to remotely control its devices.

In this case, the backup client can be configured to explicitly allow the CMon to manage its devices as follows:

- 1. Stop the NovaStor NovaBACKUP Backup/Copy Engine (nsService) Windows service.
- 2. Open C:\ProgramData\NovaStor\NovaStor NovaBACKUP\Profiles\nsconfig.ini in a text editor such as notepad for example.
- 3. Set the following key/value pair in the [configuration] section: CMCDeviceControl=1
- 4. Save nsconfig.ini.
- 5. Start the NovaStor NovaBACKUP Backup/Copy Engine (nsService) Windows service.

Test connection fails and displays messages on the machine running the backup client

Backup clients with version 19.6.1012 and older may not be able to complete a test connection successfully, specifically when the backup client tray control is running.

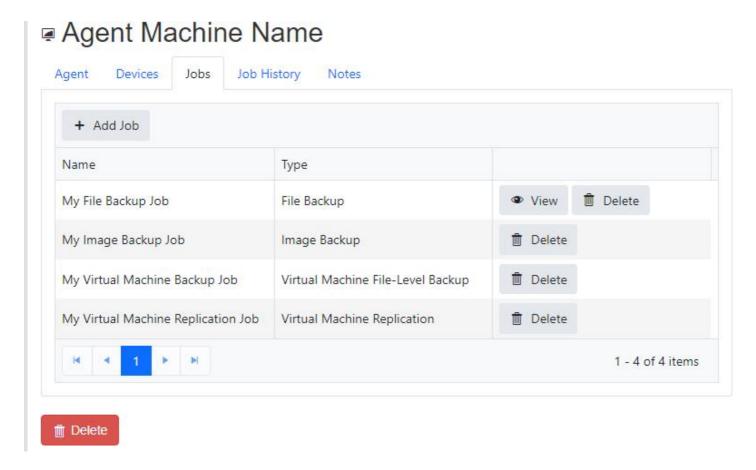
When the backup client tray control is running, messages on the machine running the backup client tray control may appear with the result of the connection test.

Agent Jobs

The Jobs tab displays the jobs configured for the agent, inherited policies from its parent groups, and also scheduled or virtual machine jobs in the backup client that aren't managed by CMon.

Jobs with multiple schedules will be displayed for each schedule.

If the backup client agent is disconnected, unmanaged scheduled or virtual machine jobs aren't displayed.



By default, the data is sorted on the Name column and has a page size of 10 records.

The grid's column headers can be used to sort and filter the data.

View

Click the "View" button to view the details of a job.

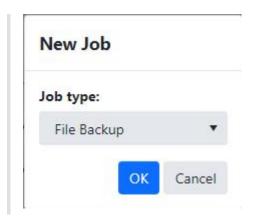
Currently, only the details of a file backup job can be displayed.

Add

Click on the Add Job button to add a new job.

Currently, only file backup jobs can be added.

The Add Job button is disabled if the user doesn't have permissions to edit jobs.



Delete

Click on the Delete button to delete the job.

Currently, only managed file backup jobs can be deleted.

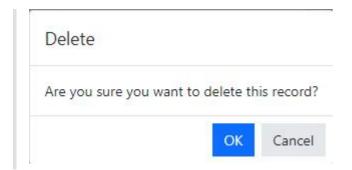
The user must confirm deleting a job.

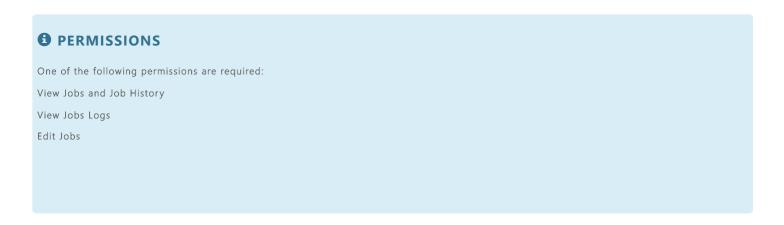
The Delete button is disabled if the user doesn't have permissions to edit jobs.

If the agent is online, the job will be deleted promptly.

If the agent is offline, the job will be deleted when the agent reconnects to CMon.

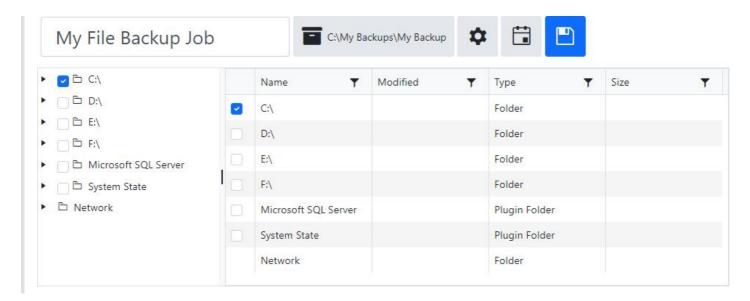
Jobs are only marked as deleted, and will still remain in the CMon database.





Job

The Job page displays the details of a job configured for the agent managed by CMon, or scheduled or virtual machine jobs in the backup client that aren't managed by CMon.



At least one selection is required.

Paths have a maximum length of 512 characters.

Unmanaged jobs

Unmanaged jobs can't be modified so the Save button isn't displayed.

Managed jobs

The job's name itself can't be modified, but the job's session name can be modified.

The Save button is disabled for users without permissions to edit jobs.

Destination

The job's destination path is displayed in the destination device button.

A destination must be selected in order to view the job's settings.

Check boxes

Check boxes are disabled for users without permissions to edit jobs.

The check boxes have three states: checked, unchecked, and mixed.

Check-marked items and their children are included as part of the backup job.

Unchecked items are not included as part of the backup job.

Check boxes for items with some children included and some not included as part of the backup job will be displayed as a mixed check-mark.

New items which exist within items that are checked or mixed checked at the time of the backup will be included as part of the backup job.

Connected agents

By default, the tree and grid display all root backup sources available for the backup job.

The available backup sources are displayed based on the agent's backup client license.

Files are not displayed in the tree, and are only displayed in the grid.

By default, the tree displays folders first, then followed by plug-in folders.

By default, the grid displays folders first, then followed by plug-in folders, then followed by files.

The Modified date and time format of folders and files are displayed in the grid according to the user's preferences.

The Size of files are also displayed in the grid.

Clicking on an item in the tree displays it's children in the grid.

Clicking on an item in the tree without children, or if the agent doesn't have access to that folder, doesn't display any items in the grid.

Double-clicking on a row in the grid expands the item in the tree and displays its children in the grid.

Network

Check boxes for the Network node and computers one level under the Network node are not displayed.

When scanning the network for computers running file and folder sharing services, the backup client agent will only detect computers which respond on port 445 within 3 seconds.

The account the backup client agent service is running as will need to have permissions for the network shares in order to browse to and access them.

Network Credentials

The backup client agent service queries the Windows Credential Manager to retrieve stored credentials that can be used to connect and enumerate protected network shares, which must meet the following requirements:

- 1. Credentials must be stored for the same user as the user account used to run the backup client agent windows service (i.e. the log on user account).
- 2. Credentials must be stored as a "Generic" type.
- 3. Credentials must be stored using the "Local Machine" or "Enterprise" persistence type.
- 4. The target name must match the display name (i.e. fully qualified host name) of the computer.

Credentials can be saved to the Windows Credential Manager in any one of the following ways:

- 1. Using a graphical user interface:
 - a. Open Control Panel > (User Accounts) > Credential Manager.
 - b. Click "Windows Credentials".
 - c. Click "Add a generic credential".
 - d. Enter the "Internet or network address", "User name", and "Password", and then click OK.
- 2. Use a command line interface by opening an elevated Windows PowerShell and running the following commands:

1 TIP

To run PowerShell as the "Local System" (NT AUTHORITY\SYSTEM) account, PsExec can be used with the following command:

PsExec.exe -i -s powershell.exe

a. Install the PowerShell NuGet Package Provider, if it's not already installed:

Install-PackageProvider -Name NuGet -Force

b. Install the CredentialManager PowerShell Module, if it's not already installed:

Install-Module -Name CredentialManager -Force

c. Add a generic credential:

New-StoredCredential -Type Generic -Persist LocalMachine -Target \$computerName -UserName \$userName -Password \$password

TIP

To remove stored credentials, run the following PowerShell command:

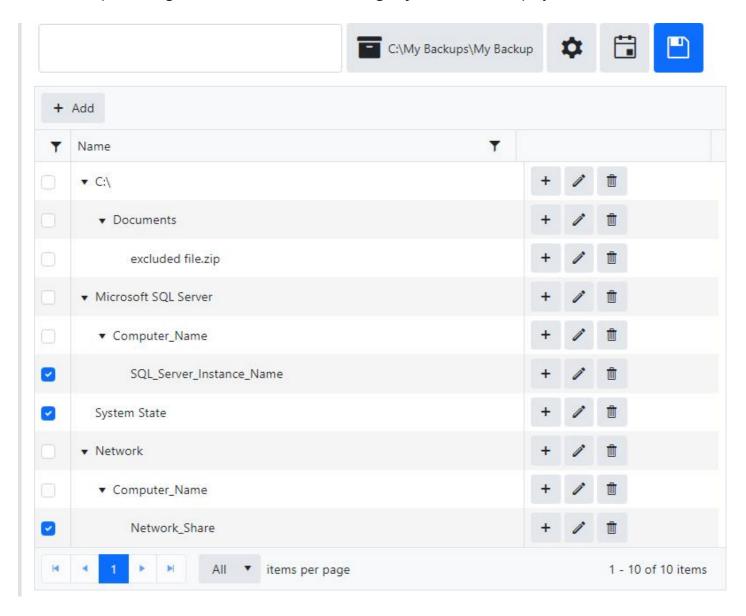
Remove-StoredCredential -Type Generic -Target \$computerName

In order for the backup client service to be able to access the network resources during a backup, one or more of the following may be required:

- 1. Use a Network Device as the target destination of a backup job.
- 2. Save the network credentials in the Network Credentials settings of the job.
- 3. Configure the job to Run As an account with permissions to access the network resources.
- 4. Map the network path to a network drive.
- 5. Use a symbolic link to a network path.
- 6. Configure the backup client service to "Log On" and run as a different user account.

Disconnected agents

If the backup client agent is disconnected, unmanaged jobs can't be displayed.



Click on the + Add button on the tree list tool bar to add a new item to the root.

Click on the + button on a tree list item to add a new child item.

New items added to the tree list are check-marked by default.

Click on the pencil icon to edit an item.

In edit mode, click on the cancel icon to cancel editing an item.

Click on the trash can icon to delete an item.

The Name field is required and must be unique on the same hierarchical level.

By default, the data is not sorted and has a page size of 10 records.

The tree list's column headers can be used to sort and filter the data, and column separators to resize the columns.



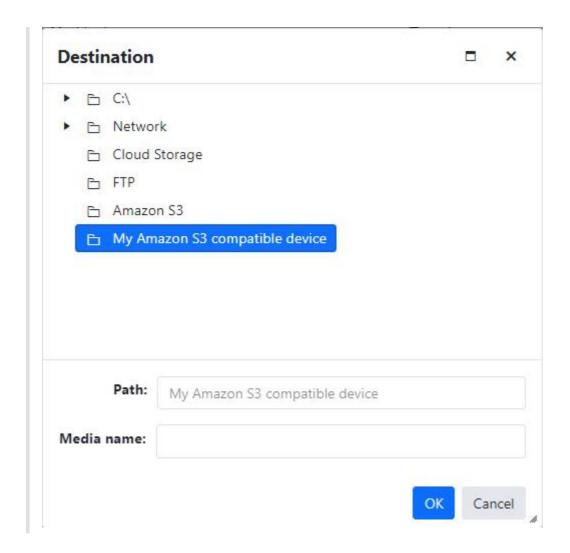
One of the following permissions are required:

View Jobs and Job History

View Jobs Logs

Edit Jobs

Destination



The Path is required and has a maximum length of 256 characters.

The device specified in the Path must already exist on the agent.

The Media Name is required and has a maximum length of 100 characters.

If a cloud storage, Amazon S3, or generic S3 device is selected or entered in the Path field, the Media Name field is disabled and must be empty.

When applicable, the value in the Media Name field must be valid windows file name and is used as the prefix of the file name of the backup file with the nbd file extension.

When applicable, the Path field must be a valid windows or network path.

The Destination window can be resized by using the resizing handle on the bottom right corner.

The Destination window can be maximized by clicking on the maximize window icon in the window's title bar.

Clicking on the Cancel or x buttons will close the window and not save any changes.

Path format

DEVICE TYPE	PATH FORMAT
Local	<pre><drive letter="">:\<folder path=""></folder></drive></pre>
Universal Naming Convention (UNC) network path	Network\ <server address="">\<share name=""></share></server>
Network device	<network device="" name="">\\<server address="">\<share name=""></share></server></network>
Cloud storage, Amazon S3, or generic S3 device	<device name=""></device>

Unmanaged jobs

Unmanaged jobs can't be modified so the OK button is disabled.

Managed jobs

The OK button is disabled for users without permissions to edit jobs.

Connected agents

By default, the tree displays all root backup targets available for the backup job.

The available targets are displayed based on the agent's backup client license and configured devices.

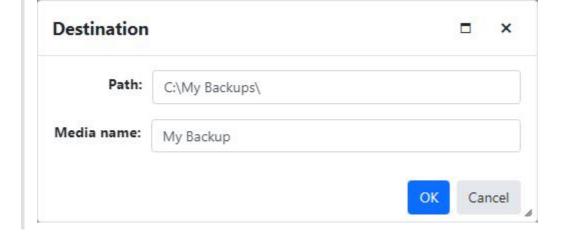
Files are not displayed in the tree.

By default, the tree displays folders first, then followed by plug-in folders.

Clicking on an item in the tree updates the Path field.

Disconnected agents

If the backup client agent is disconnected, the tree is not displayed and the Path has to be entered manually.



Related Topics

Network

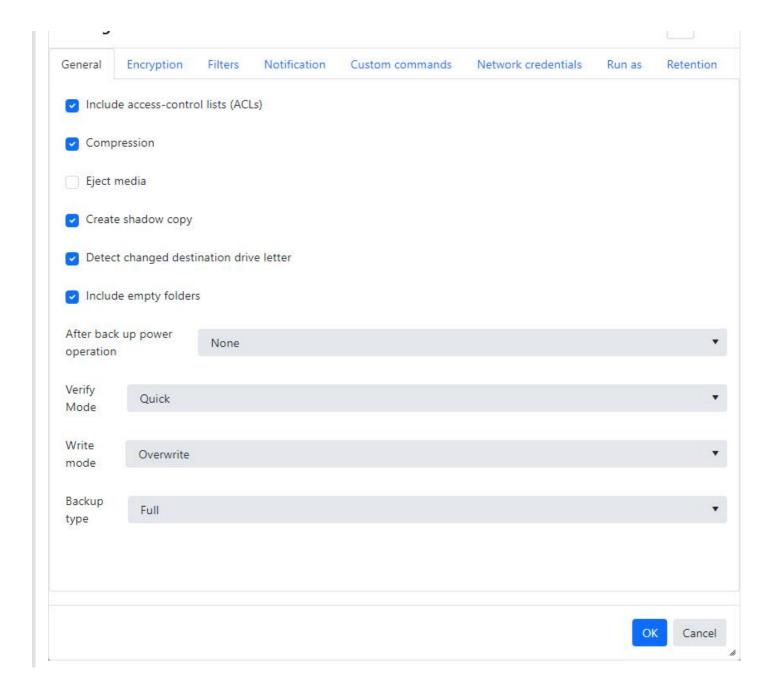
Network Credentials



Settings

The input fields and the OK button are disabled for users without permissions to edit jobs and for unmanaged jobs.

General



Include access-control lists (ACLs)

Check-mark this check box to include access-control lists (ACLs) for files and folders selected during a back up.

ACLs contain the user and group permissions for files and folders.

It's recommended to back up ACLs to maintain the same security configuration if the files and folders are restored.

The Include access-control lists check box is check-marked and disabled when the target destination is an Amazon S3 compatible device.

Compress backup

Check-mark this check box to enable compressing the data selected during a back up.

Compressing the data usually saves space on the target destination, increases backup transfer speeds, and saves bandwidth.

The Compress backup check box is check-marked and disabled when the target destination is a cloud storage device.

The Compress backup check box should not be check-marked and disabled when the target destination is an Amazon S3 compatible device.

Eject Media

Check-mark this check box to automatically eject the media after a backup has completed.

The device must support the ability to eject media.

The Automatically eject media at the end of job check box should not be check-marked and disabled when the target destination is a cloud storage device, S3, Amazon S3 compatible device and network.

Create shadow copy

Check-mark this check box to automatically backup open files on the local system using Volume Shadow Copy Service (VSS).

Detect changed destination drive letter

Check-mark this check box to automatically select the correct removable disk device (USB) even when it's drive letter changes.

The Detect changed destination drive letter check box should not be check-marked and disabled when the target destination is a cloud storage device, S3, Amazon S3 compatible device and network.

Include empty folders

Check-mark this check box to backup empty folders.

The Include empty folders check box should not be check-marked and disabled when the target destination is a cloud storage device and Amazon S3 compatible device.

After back up power operation

Select an option from the After back up power operation drop down to allow the action to perform after the backup job completes.

VALUE	DESCRIPTION
None	Nothing will occur after the backup job completes.
Shutdown	Shutdown the computer when the backup job completes.
Restart	Restart the computer when the backup job completes.

Verify Mode

Select an option from the Verify Mode drop down to allow the backup verify after completion.

This can only be set to None when the target destination is a cloud storage device. This can only be set to Quick when the target destination is an Amazon S3 compatible device.

VALUE	DESCRIPTION
None	Do not perform any verification.
Quick	Perform fast verification of media indexes only.
Advanced	Perform full comparison of the backup file to the original file.

Write mode

Select an option from the Write mode drop down to set the backup write mode.

This can only be set to Append when the target destination is a cloud storage device and Amazon S3 compatible device.

This can only be set to Overwrite when the target destination is an Amazon S3 device.

VALUE	DESCRIPTION
Append	Appends to recognized media. Automatically formats blank or unrecognized media.
Overwrite	Overwrites all recognized media. Automatically formats blank or unrecognized media.

Backup type

Select an option from the Backup type drop down to set the backup mode.

VALUE	DESCRIPTION
Full	The full
Incremental	The incremental
Differential	The differential
Snapshot	The Snapshot

Encryption

Encryption type

Select an option from the Encryption type drop down to set the encryption type.

Encryption type must match the device's encryption type when the target destination is a cloud storage device.

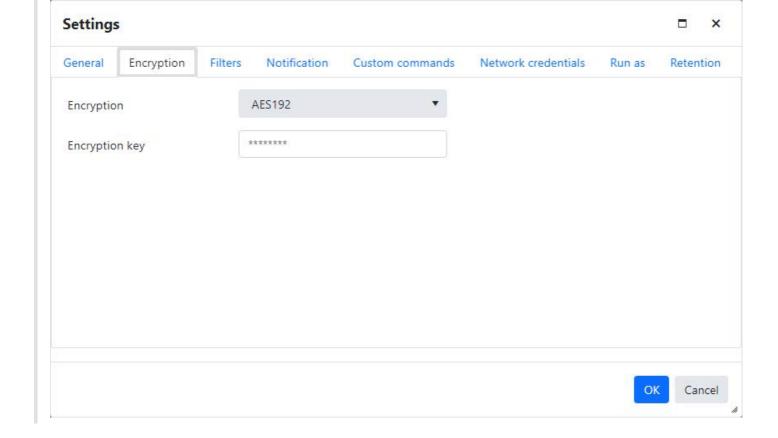
This can only be set to None and field is disabled when the target destination is an Amazon S3 compatible device.

VALUE	DESCRIPTION
None	No encryption
Blowfish	Blowfish encryption
AES128	AES-128 encryption
AES192	AES-192 encryption
AES256	AES-256 encryption

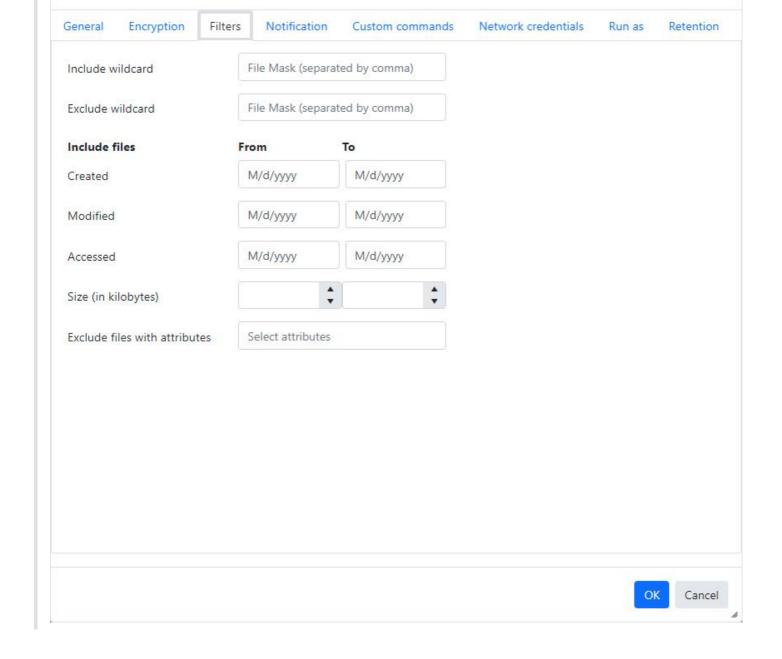
Encryption key

The Encryption key is your personal encryption key. The Encryption key you enter must be between 8 to 20 characters long.

Encryption key must be empty when the target destination is a cloud storage device.



Filters



Filters key is disabled when the target destination is an Amazon S3 compatible device.

Include files

Wildcard file masks with comma separated (e.g. *.doc) can be used to filter the files to be included for backup.

The length must be 3072 characters or fewer.

Exclude files

Wildcard file masks with comma separated (e.g. *.exe) can be used to filter the files to be excluded for backup.

The length must be 3072 characters or fewer.

Include files created from

Includes files whose created date starts from this date.

The date and time must be set at a minimum from 1970 to the maximum 2038-1-18 11:59:59 PM, in UTC.

'From' date must be less than the 'To' date.

Include files created to

Includes files whose created date ends with this date.

The date and time must be set at a minimum from 1970 to the maximum 2038-1-18 11:59:59 PM, in UTC.

'To' date must be greater than the 'From' date.

Include files modified from

Includes files whose modified date starts from this date.

The date and time must be set at a minimum from 1970 to the maximum 2038-1-18 11:59:59 PM, in UTC.

'From' date must be less than the 'To' date.

Include files modified to

Includes files whose modified date ends with this date.

The date and time must be set at a minimum from 1970 to the maximum 2038-1-18 11:59:59 PM, in UTC.

'To' date must be greater than the 'From' date.

Include files accessed from

Includes files whose accessed date starts from this date.

The date and time must be set at a minimum from 1970 to the maximum 2038-1-18 11:59:59 PM, in UTC.

'From' date must be less than the 'To' date.

Include files accessed to

Includes files whose accessed date ends with this date.

The date and time must be set at a minimum from 1970 to the maximum 2038-1-18 11:59:59 PM, in UTC.

'To' date must be greater than the 'From' date.

Include files minimum size in kilobytes

Includes files with the given minimum size in kilobytes.

The file size must be set at a minimum from 0 to the maximum 9007199254740991.998046875 KBs. Value must have a maximum of 28 decimal places.

Minimum Size must be less than or equal to the Maximum Size.

Include files maximum size in kilobytes

Includes files with the given maximum size in kilobytes.

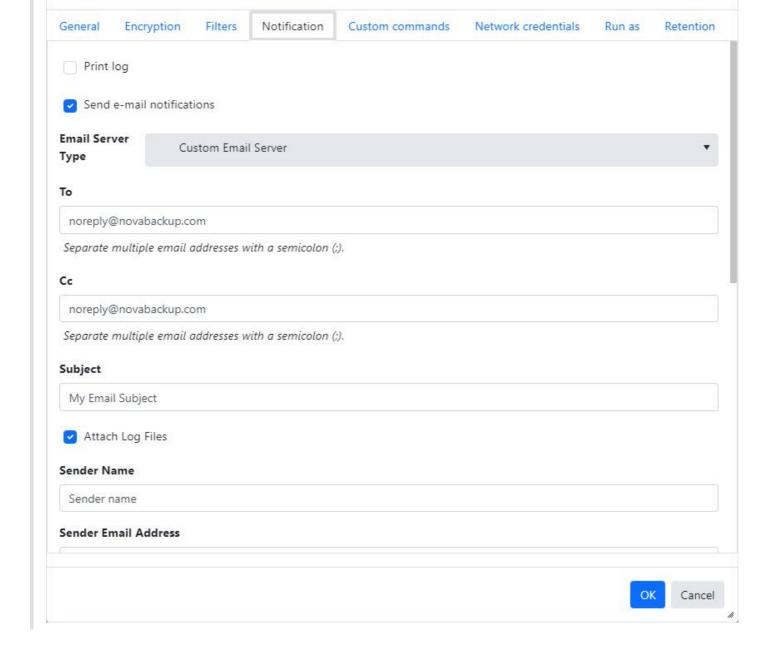
The file size must be set at a minimum from 0 to the maximum 9007199254740991.998046875 KBs. Value must have a maximum of 28 decimal places.

Maximum Size must be greater than or equal to the Minimum Size.

Exclude files with attributes

Excludes the files with selected attributes.

Notification



Print log

Check-mark this check box to automatically print the log to the agent's default printer.

Send e-mail notifications

Check-mark this check box to enable email notifications for the backup job.

Email Server Type

Select an option from the Email Server Type drop down to set the email server type.

VALUE	DESCRIPTION
NovaBACKUP Email Server	A pre-configured email notification service.
Custom Email Server	Configurable SMTP server settings.

То
The recipient e-mail address is required to send notifications when email notification is enabled.
Separate multiple email addresses by a semicolon.
The length of recipient e-mail address must be less than or up to 128 characters.
CC
The carbon copied email recipients.
Separate multiple email addresses by a semicolon.
The length of e-mail address must be less than or up to 128 characters.
Subject
The email subject.
The length of subject must be less than or up to 30000 characters.
Attach log file
Check-mark this check box to attach the log to the email.
Sender Name
The name of the email sender.
The sender name is required for server type custom SMTP.
The length of sender name must be less than or up to 50 characters.
Sender Email Address
The email sender address.
The sender email address is required for server type custom SMTP.
The length of sender email address must be less than or up to 128 characters.
Server Address
The email server address.

The email server address is required for server type custom SMTP.

The length of email server address must be less than or up to 50 characters.

Server Port The email server port. The email server port is required for server type custom SMTP. The email server port value must be between 1 and 65535. **Enable SSL** Check-mark this check box indicating whether SSL is used. The SSL is enabled when server type is custom SMTP. **Enable Authentication** Check-mark this check box to enable email authentication. User Name User name for enable authentication. Length of UserName must be less than or up to 50 characters. Password Password for enable authentication. Length of Password must be less than or up to 256 characters. **Retry Count** The maximum number of times to retry sending the email on failure. The retry count value must be between 1 and 5. **TimeoutSeconds** The number of seconds to wait before the request times out. The timeout seconds value must be between 1 and 30. Condition The 'Condition' is enabled either check-marked print log or send email notification check box. Select an option from the Condition option to set the notification condition. **VALUE DESCRIPTION**

VALUE	DESCRIPTION
WhenLogContainsMessagesOrWarningsOrErrors	When log contains messages, warnings, or errors.
WhenLogContainsWarningsOrErrors	When log contains warnings or errors.
WhenLogContainsErrors	When log contains errors.
Always	Always.

Custom commands

Run before backup

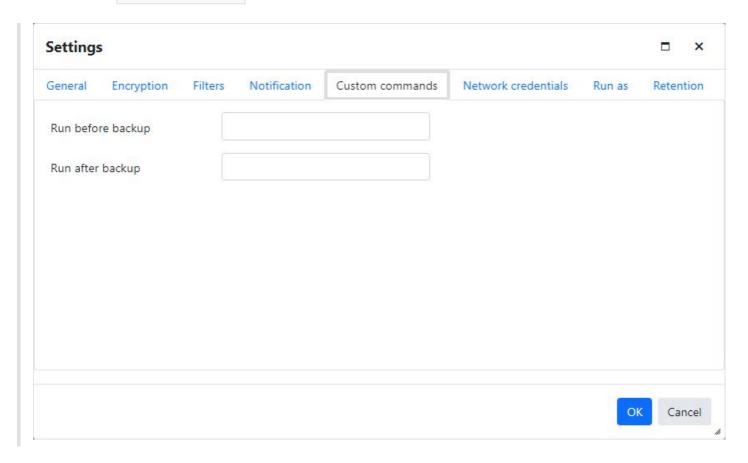
Enter the command or program you want to execute before a backup operation.

The length of Run before backup must be less than or up to 256 characters.

Run after backup

Enter the command or program you want to execute after a backup operation.

The length of Run after backup must be less than or up to 256 characters.



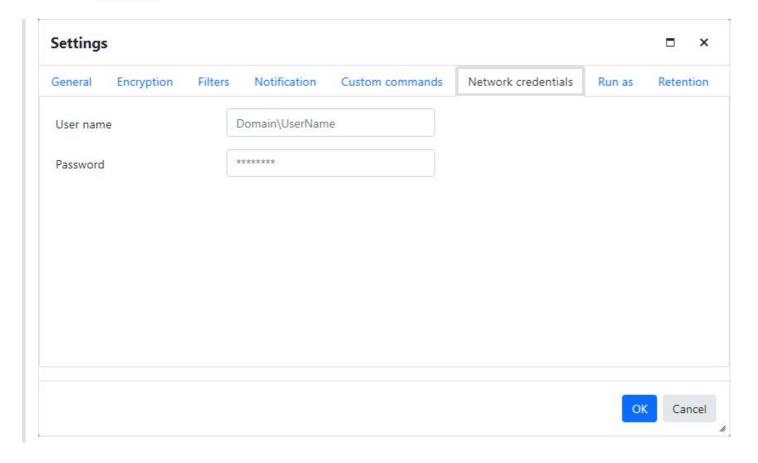
User name for connecting to network location such as NAS device or network share with a specific username and password. User name can be given in domain\username format.

Length of domain and username must be less than or up to 50 characters each.

Password

Password for connecting to network location such as NAS device or network share with a specific username and password.

Length of Password must be less than or up to 256 characters.



Run as

Run as type

Select Run as type from Logged in user and Specific user options.

User name

User name for run as a specific username and password. User name can be given in domain\username format.

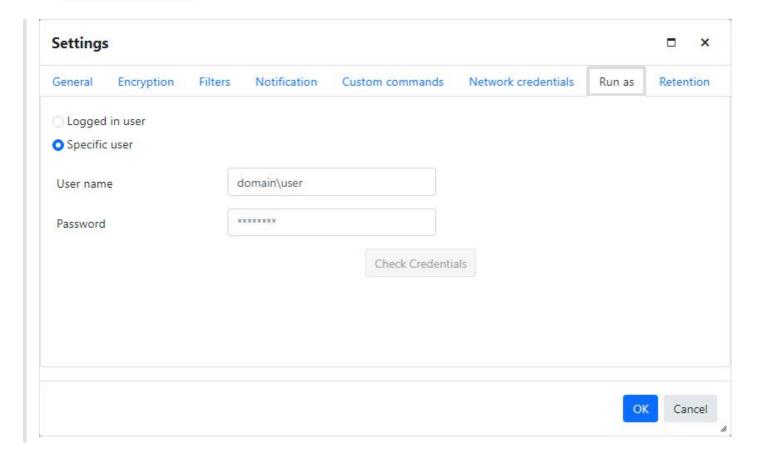
Length of domain and username must be less than or up to 50 characters each.

Password for run as a specific username and password.

Length of Password must be less than or up to 256 characters.

Check credentials

Click Check credentials to verify the credentials.



Retention

Delete backups older than

Check-mark the check box Delete backups older than and select the maximum age of backups to keep.

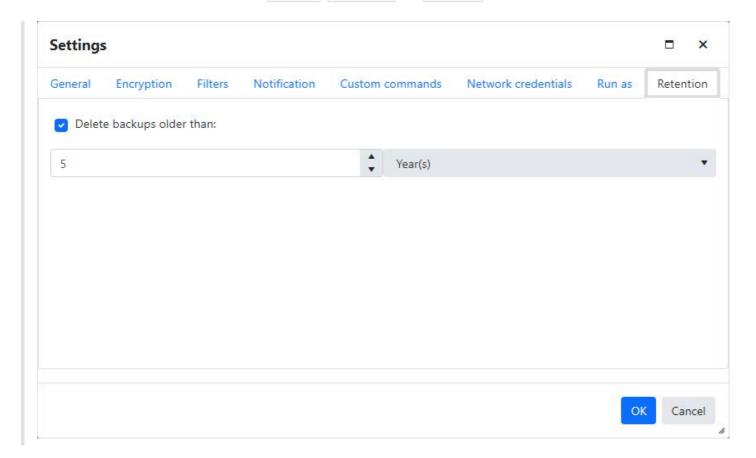
The Delete backups older than check box is un-checked and disabled when the target destination is not an Amazon S3 compatible device.

When the Delete backups older than check box is first check-marked, the default retention period is 30 days.

Retention Period

The minimum retention period is 1 and the maximum is 99.

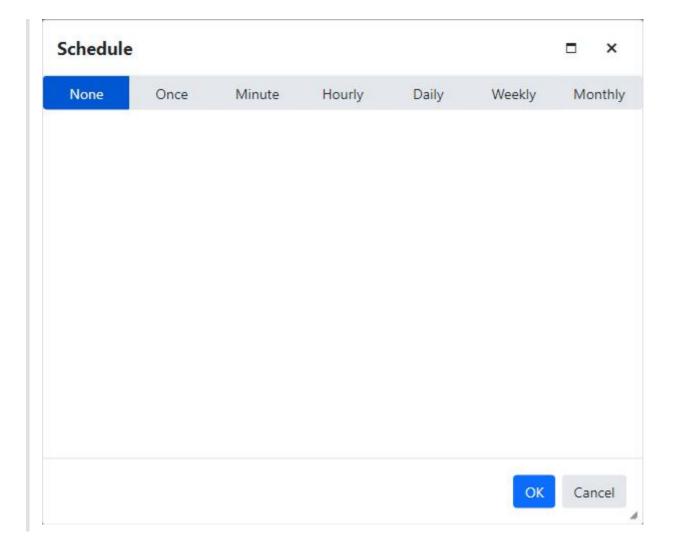
The retention period type must be Day(s), Month(s), or Year(s).



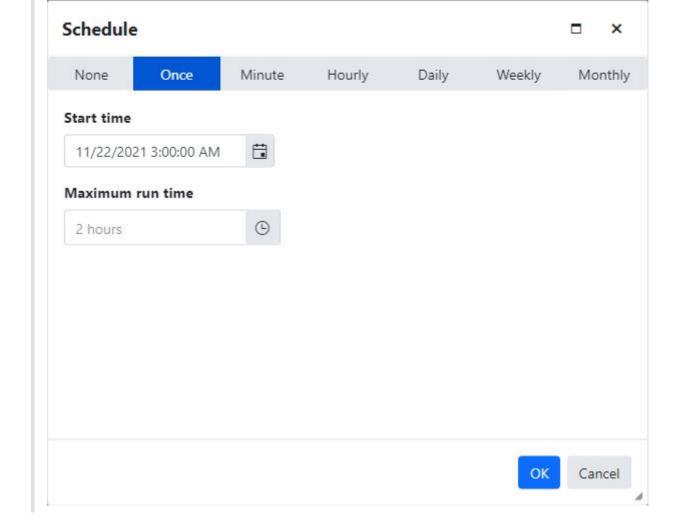
Schedule

The input fields and the OK button are disabled for users without permissions to edit jobs and for unmanaged jobs.

None



Once



Start time

The date and time the scheduled job will start.

The date and time must be set at a minimum from 1970 to the maximum 3001-1-18 11:59:59 PM, in UTC.

The date and time is displayed relative to the CMon user account's time zone and according to the pattern from their selected language.

Maximum run time

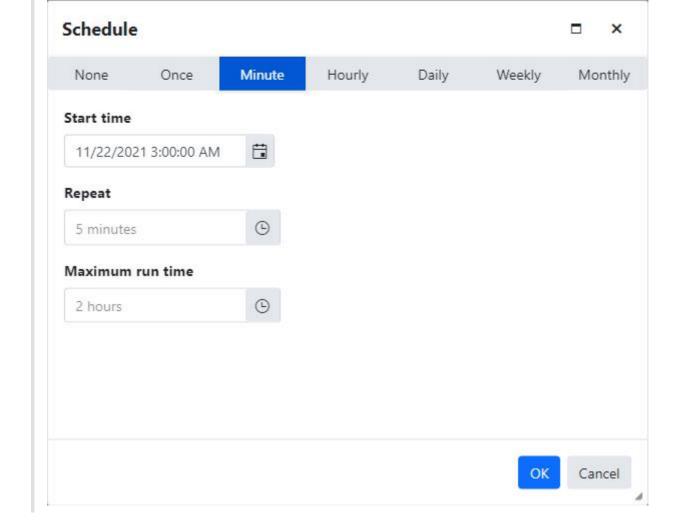
The maximum time the job must complete before it will be forced to stop.

The maximum run time must be less than 16 hours and 40 minutes.

An empty field indicates the job will not be limited to complete within a certain amount of time.

Setting the hours and minutes to 0 will clear the field.

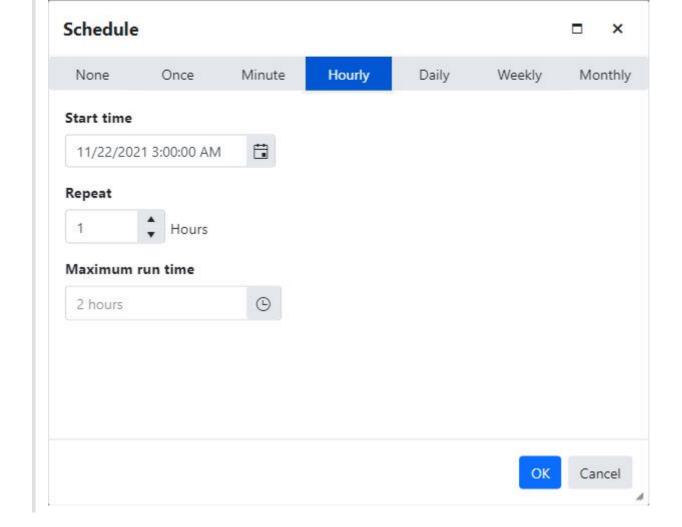
Minute



The repeat interval for the Minutes and Seconds fields must be between 0 and 59.

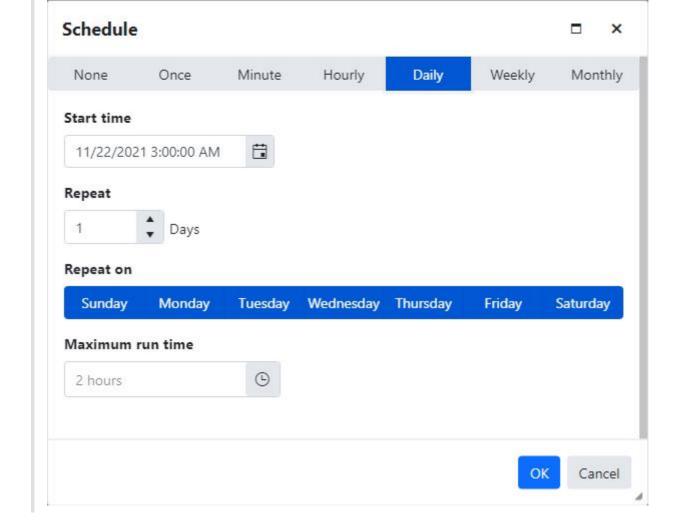
The Minutes and Seconds fields must not both be 0.

Hourly



The Hours field must be between 1 and 23.

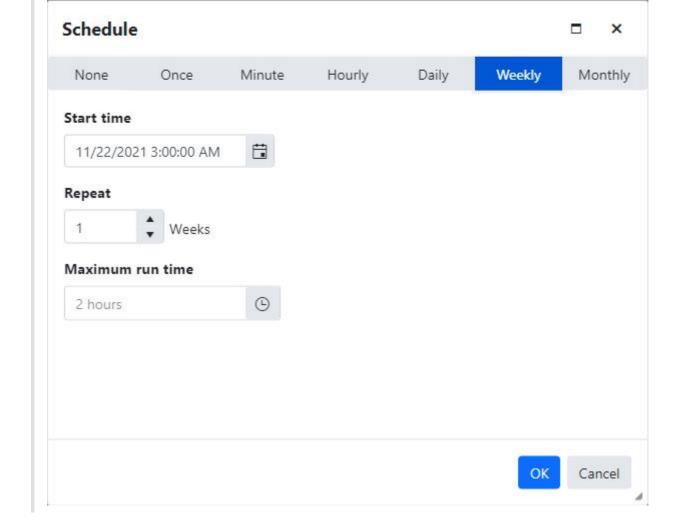
Daily



The Days field must be between 1 and 999.

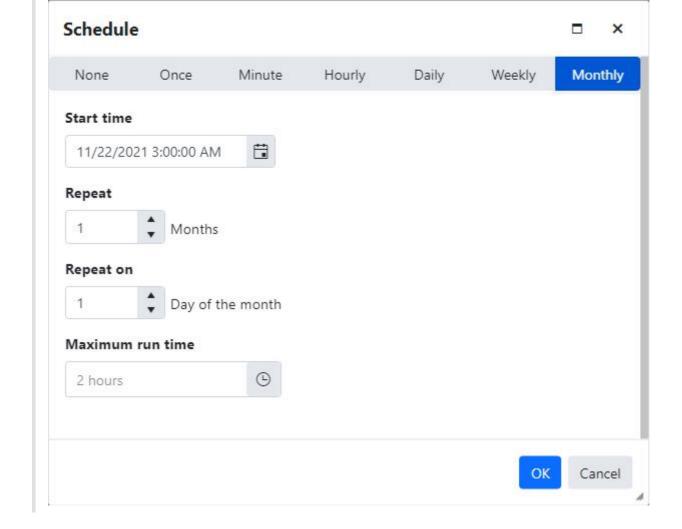
At least one day of the week must be selected.

Weekly



The Weeks field must be between 1 and 52.

Monthly

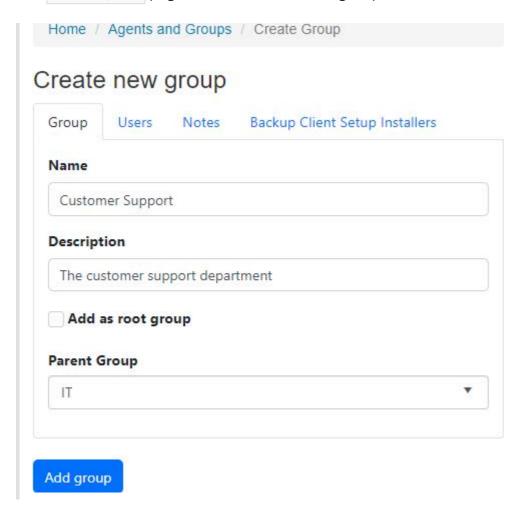


The Months field must be between 1 and 12.

The Day of the month field must be between 1 and 31.

Create a group

The Create group page is used to add a new group.



Group

Group name

- Required
- Must be less than or equal to 64 characters
- Must be unique by parent group

Description

Must be less than or equal to 50 characters

Add as root group

- This check box is displayed only when the user has permissions to access all groups.
- Check-mark this check box to create a root group.

Parent Group

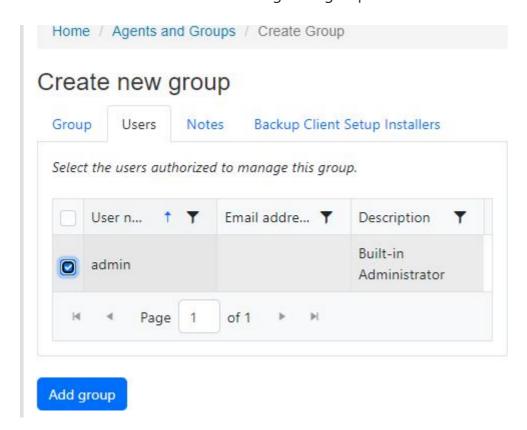
This field is displayed when "Add as root group" is check-marked, or the logged in user doesn't have permission to access all groups.

- Only the groups the user is authorized to manage are listed.
- A parent group is required if the user doesn't have permissions to access all groups.

Users

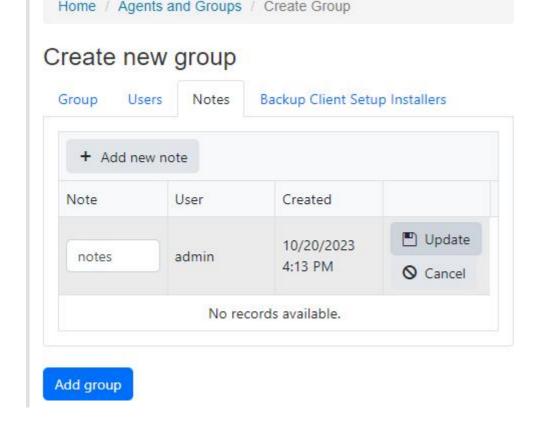
The Users tab is enabled only when the logged in user has permissions to Edit Users.

Select the users authorized to manage this group.



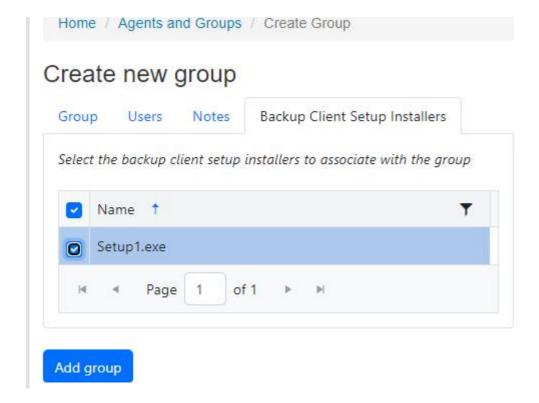
Notes

Create notes to associate with the group.



Backup Client Setup Installers

Select the backup client setup installers to associate with the group.



Add group

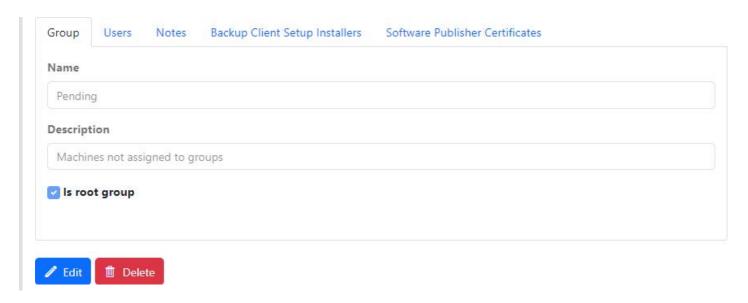
Click the "Add group" button to create the group.

• PERMISSIONS REQUIRED

Edit Groups

View details for a group

The Group details page is used to display the details of a group.



The Edit and Delete buttons are enabled for users with Edit Groups permission.

Group

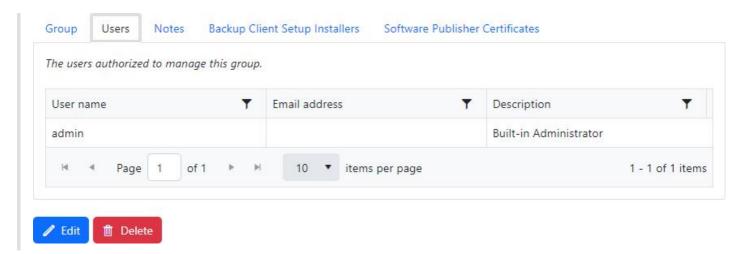
The following fields are read-only:

- Group name
- Description
- Parent Group
- Is root group

Users

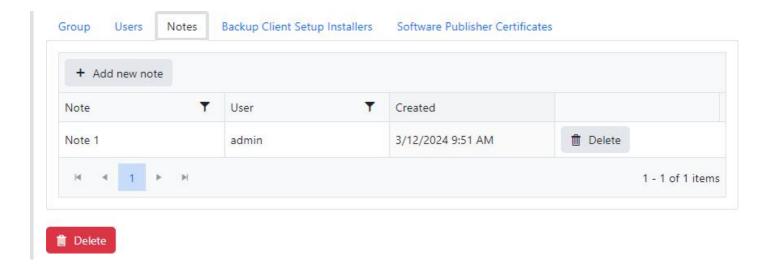
The Users tab displays the users associated with the group.

The Users tab is only enabled for users with View Users permission.



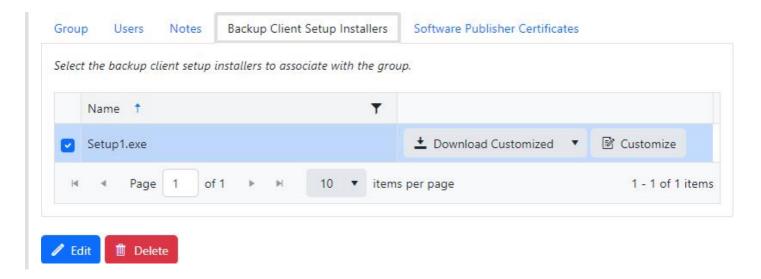
Notes

The Notes tab displays the notes associated with the group and can be used to create and delete notes.



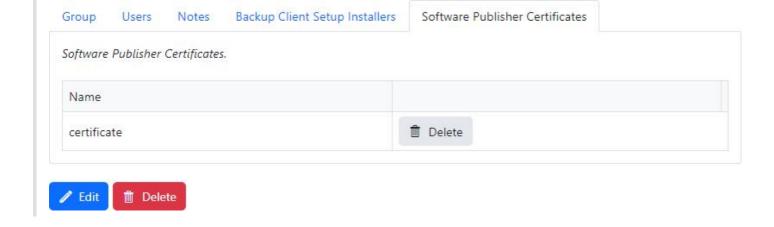
Backup Client Setup Installers

The Backup Client Setup Installers tab displays the backup client setup installers associated with the group and can be used to modify the associations.

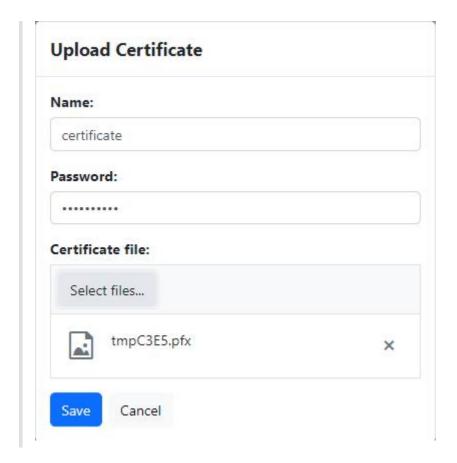


Software Publisher Certificates

The Software Publisher Certificates tab displays the software publisher certificates associated with the group and can be used to upload or delete the certificate.



Upload a certificate



Name

- Required
- Must be less than or equal to 256 characters

Password

- Optional
- Must be less than or equal to 256 characters

Certificate File

- Required
- Extension must be 'pfx'
- Must be usable to digitally sign files
- Size must be less than or equal to 15 MB

One of the following permissions is required:

View Agents and Groups

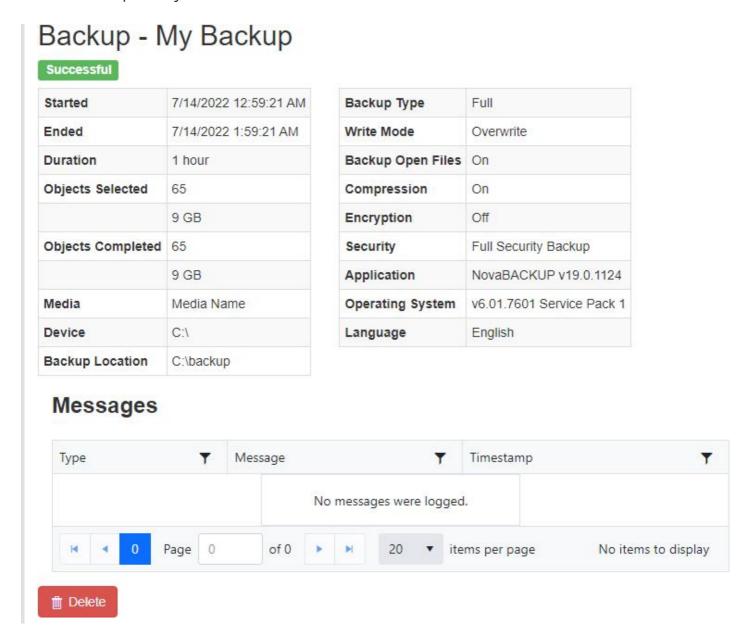
• Must be a valid certificate, and include the private key

Log Viewer

Log Viewer via the Dashboard example (1 of 2):

Via the Dashboard you can double-click on any agent name that you are interested in seeing the log for and it will display the backup log as seen in this example.

This first example is a job with Successful status.



Log Viewer via the Dashboard example (2 of 2):

This second example is a job with Failed status.

Backup - My Backup

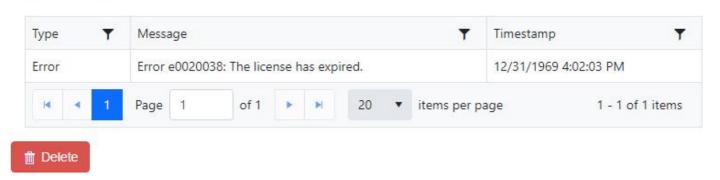


C:\backup

Backup Type	Full
Write Mode	Overwrite
Backup Open Files	On
Compression	On
Encryption	Off
Security	Full Security Backup
Application	NovaBACKUP v19.0.1124
Operating System	v6.01.7601 Service Pack 1
Language	English

Messages

Backup Location



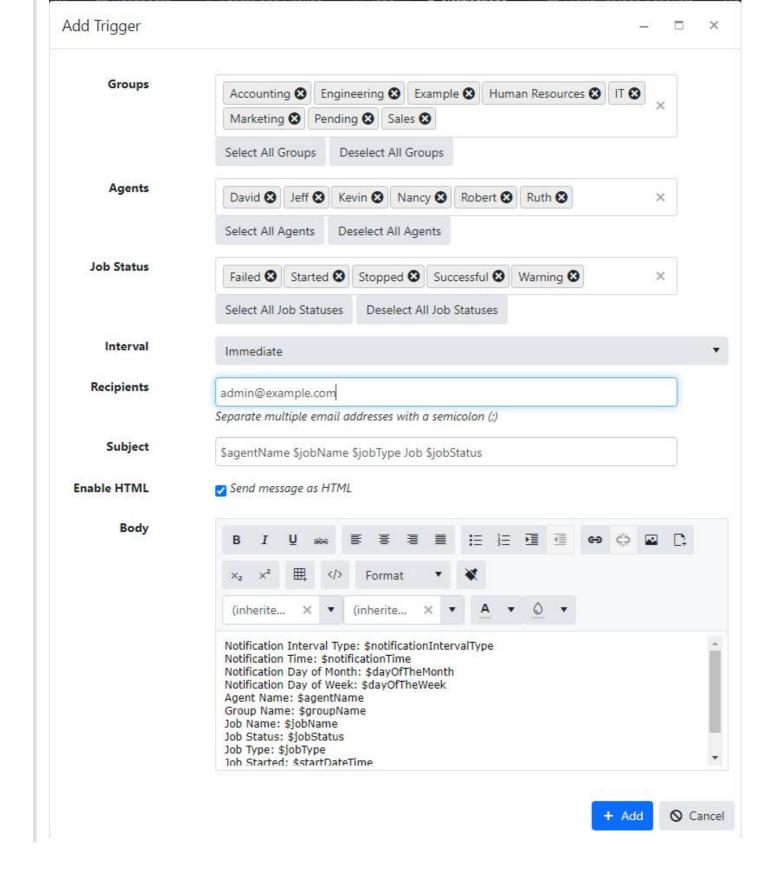


Notification Triggers

A **Notification Trigger** is an e-mail notification for selected groups of agents on an interval basis. A single trigger can be created for an entire group of agents. The notification will be an e-mail sent to the e-mail addresses specified in the trigger configuration. The current triggers are shown in the "Notification > Triggers" page.



When creating a **New Trigger**, you are asked some questions including the agents and groups that will be included in the notification. The "**Notification Interval** " choices are Daily, Weekly, Monthly and Immediate. You can set a custom subject, message text, etc. When done configuring click the Add button.

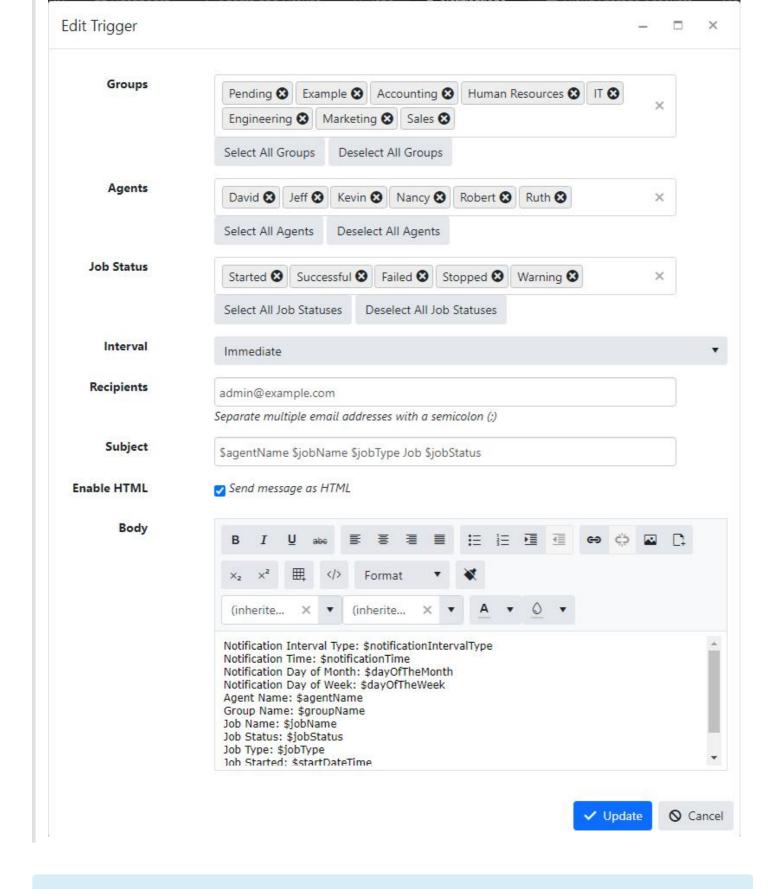


Once a **New Trigger** is added you can "**View**" or "**Delete**" the existing trigger by clicking on the buttons on the right-side of the screen in the Action column. To **Edit** you can click the **View** button.

The following custom email substitution variables can be used in the subject and body of the notification email.

Variable	Description	Examples

\$notificationIntervalType	The notification interval type name.	Daily Weekly Monthly Immediate
\$notificationTime	The notification time in the format <i>hh:mm:ss tt</i> as specified for a Daily interval.	07:34:55 PM
\$dayOfTheMonth	The notification day of the month as specified for a Monthly interval.	15
\$dayOfTheWeek	The notification day of the week as specified for a Weekly interval.	Sunday
\$agentName	The agent friendly name for which the job was run on.	agent1
\$groupName	The group name of the agent for which the job was run on.	group1
\$jobName	The name of the job that ran.	job1
\$jobStatus	The status of the job at the time of the notification.	Started Successful Failed Stopped Warning
\$jobType	The type of the job.	Backup Restore Copy Import Image Backup Virtual Machine File Level Backup Virtual Machine Replication Backup Virtual Machine File Level Restore
\$startDateTime	The time the job started.	6/15/2016 7:47:34 PM
\$endDateTime	The time the job finished. If the job has not finished yet, the value will be empty.	6/15/2016 7:54:13 PM
\$backupClientVersionNumber	The backup client version number.	18.0.1813.1



PERMISSIONS REQUIRED

View Alerts

Edit Alerts

Account Management

To manage the currently logged in user account, click on the username in the navigation menu.

The account management page provides the ability to change the following:

- Password
- Time zone
- Language

The logged in user can quickly download the backup client setup installer customized with their cloud account.

Set Password

New users created without a password must set their password from the "Set Password" page using the link provided in the user registration email.

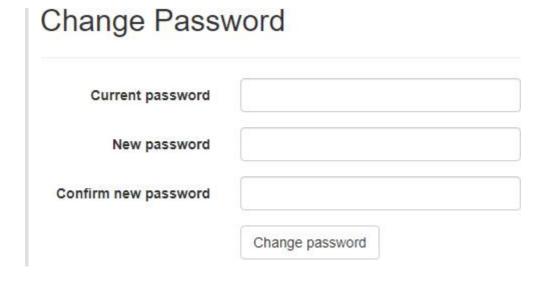


After setting their password, they'll be logged in.

If the "Remember me?" check box is checked, a cookie will be created which allows the user to remain logged in for up to 7 days of inactivity by default.

Password

The password for the currently logged in user can be changed from the "Change Password" page.



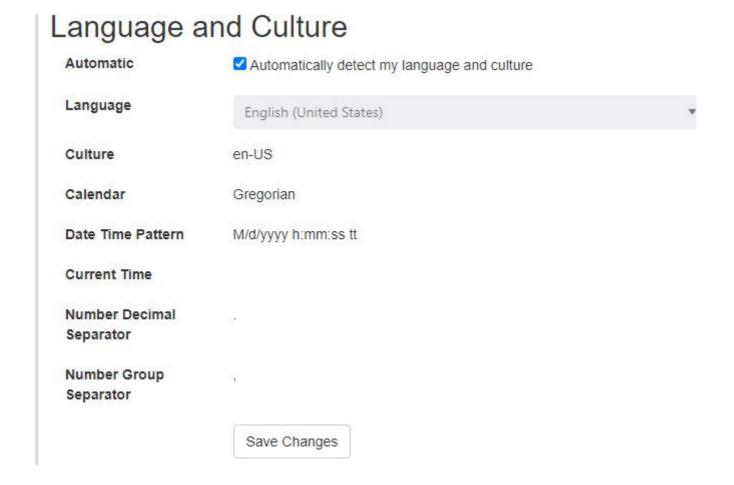
Time Zone

The date and time for the currently logged in user can be changed from the "Time Zone" page.



Language and Culture

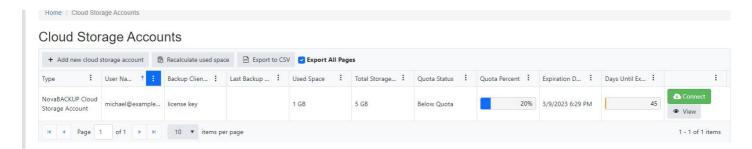
The format dates, times, and numerals are displayed for the currently logged in user can be changed from the "Language and Culture" page.



Cloud Storage Accounts

The "Cloud Storage Accounts" view allows users to manage their cloud storage accounts.

The administrator must add a Storage Server in order for users to create cloud storage accounts.



Add new cloud storage account

Click on the "Add new cloud storage account" button to add a new cloud storage account.

If there's only one accessible storage server, then the user is automatically redirected to the appropriate page to create a new cloud storage account.

Otherwise, the "Cloud storage account type" drop down will contain the options "Amazon S3 Compatible Cloud Storage Account" and "NovaBACKUP Cloud Storage Account" to allow the user to select the appropriate cloud storage account type to create.



Recalculate used space

Click the "Recalculate used space" button to recalculate the used space for cloud storage accounts.

When clicked, the button is disabled and the animation indicates the recalculations are running in the background.

Interaction with the grid is not blocked while the recalculations are running.

Only the used space for the cloud storage accounts accessible to the current user are recalculated.

After the recalculations have completed successfully, the user can click the button again to refresh the data in the grid so any changes to the used space are displayed.

View

Click on the "View" button next to the cloud storage account to view its details.

Columns

Columns are dynamically displayed depending on the width of the browser window.

The column menus can be used to lock, sort, show and hide columns, and filter the data.

The "Group", "Free Space", "Enabled", "Status", "Number Of Computers", and "License Status" columns are hidden by default.

The "Quota Percent" will turn from blue to orange when the account is near quota, and red when at or over quota. If there's no quota on the account, the percentage bar isn't displayed.

The "Expiration Date" field displays the closest expiration date for the license or its upgrade subscription, if a license key was used to create the account.

The "Days Until Expiration" will start as orange and fill up when there are 45 or less number of days until the license expires, and red when there are 14 or less. If the license doesn't expire, the countdown timer bar is not displayed.

Export to CSV

Click on the "Export to CSV" button to create a comma-separated values (CSV) file containing the list of cloud storage accounts, sorted, and filtered as the current view.

If the "Export All pages" check box is check-marked, then the data in all pages will be exported.

The exported CSV file will contain the following columns:

COLUMN NAME	DESCRIPTION
DisplayType	The type of account. ("NovaBACKUP Cloud Storage Account" or "Amazon S3 Compatible Cloud Storage Account")
GroupName	The name of the storage server group.
UserName	The user name in the storage server.
BackupClientLicenseKey	The backup client license key.

COLUMN NAME	DESCRIPTION
LastBackupDate	The date and time of the last backup in UTC.
UsedBytes	The amount of storage space used in bytes since it was last calculated. An empty value indicates the storage server could not be contacted.
FreeBytes	The amount of storage space remaining in bytes.
QuotaBytes	The total amount of storage space available in bytes.
Enabled	Indicates whether or not the cloud storage account is enabled.
AccountStatus	The account status. ("Active", "Deleted", or "Pending")
NumberOfComputers	The number of computers.
QuotaStatus	The quota status. ("NONE", "BELOW", "NEAR", "AT", or "OVER")
QuotaPercent	The amount of used space as a percentage of the quota.
ExpirationDate	The backup client license's expiration date in UTC.
DaysUntilExpiration	The number of days until the backup client license's expiration date.
LicenseStatus	The status of the license in the storage server. ("Normal" or "Evaluation")

1 PERMISSIONS REQUIRED

View Cloud Storage Accounts

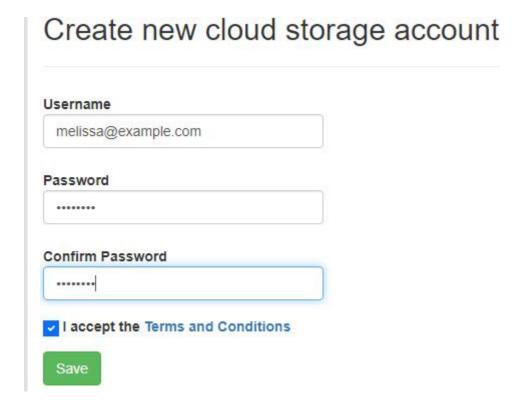
Related topics:

Add an Amazon S3 compatible cloud storage account Add a NovaBACKUP cloud storage account

Create an account

From the "Cloud Storage Accounts" view, click on the "Add new cloud storage account" button to create a new cloud storage account.

Enter a username, password, and click the "Save" button to create a new cloud storage account.



The username must be unique.

A new "Cloud Storage" device will automatically be added to the backup client when the user signs up inside the embedded web browser of the backup client, or re-connects to an existing cloud storage account.

When re-connecting to an existing cloud storage account, the user will be asked for their cloud storage account password if it's different then their user account password.

A backup client license key may be required to create a cloud storage account.

In this case, if the backup client license is disabled, expired, doesn't support cloud storage, or if it has an expired upgrade subscription, it can't be used to create a cloud storage account.

The backup client license key will be automatically populated if the user is signing up inside the embedded web browser of the backup client.



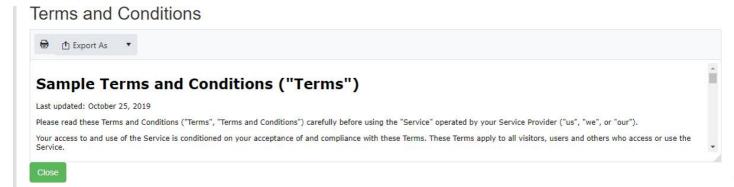
Terms and Conditions

Acceptance of the terms and conditions may be required.

The "Terms and Conditions" hyperlink will open a new window.

The new window displays the Terms and Conditions with options to print and save as a file in a different format.

The terms and conditions can be exported as a Microsoft Office Open XML Format word processing document (DOCX), Rich Text Format (RTF), Adobe Portable Document Format (PDF), HyperText Markup Language (HTML), and plain text (txt).



Related topics:

Add a storage server

User registration and creating a cloud storage account in one step

Connect to an account

The embedded web browser dialog from within the backup client must be used in order to successfully connect to a cloud storage account.

The embedded web browser dialog can be launched from either the "Home" or the "Device" tabs.

From the "Home" tab, click on the "Cloud Backup" button.

From the "Device" tab, click on the "Click HERE to add an online device" list item.

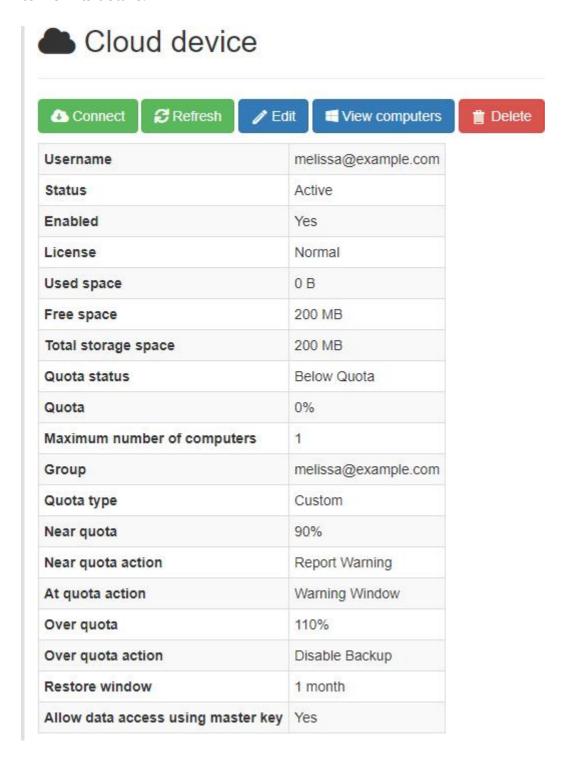
If a cloud storage account has already been added, the web browser dialog will not be displayed.

1 PERMISSIONS REQUIRED

View Cloud Storage Accounts

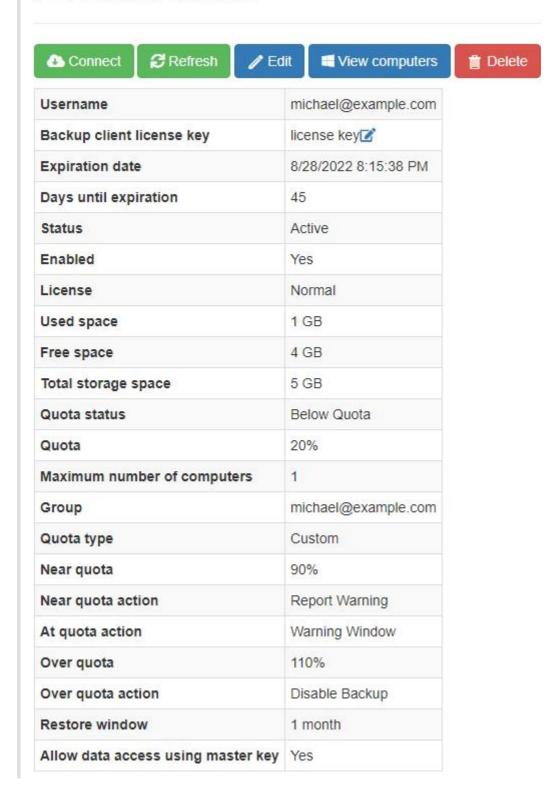
View details of an account

From the "Cloud Storage Accounts" view, click on the "View" button next to the cloud storage account to view its details.

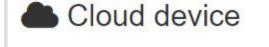


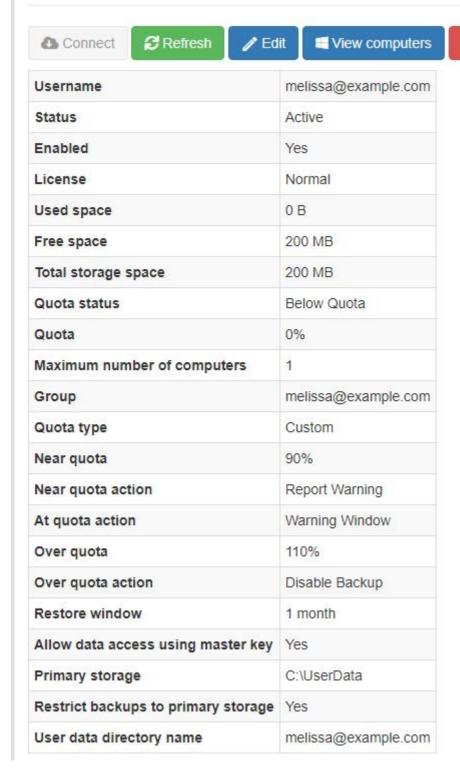
If a cloud storage account has a license key, it's also displayed.

Cloud device



The administrator has the ability to view more details on the account.





The administrator doesn't have the ability to connect to a cloud storage account of another user.

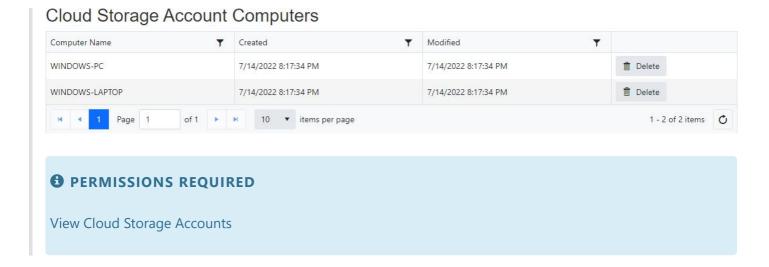
Delete



View Cloud Storage Accounts

View computers

From the cloud storage account details view, click on the "View computers" button to view the computers attached to the cloud storage account.



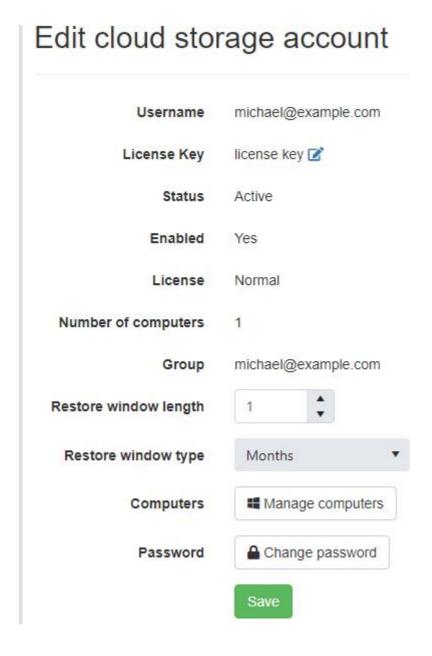
Edit cloud storage account

From the cloud storage account details view, click on the "Edit" button.

The editable fields depend on whether or not a license key is required and also the role of the logged in user.

License key is required

If a license key is required for the cloud storage account, only the license key and restore window can be modified. This is because the quota and the number of computers are retrieved from the license server.



The administrator can also modify the "License status", storage server group, master key access, primary storage, and user data directory fields of the cloud storage account.

Edit cloud storage account michael@example.com Username license key Z License Key Status Active Enabled Yes Normal License Number of computers Group michael@example... Restore window length Restore window type Months Allow data access using master key Primary storage C:\UserData Restrict backups to primary storage User data directory name michael@example.com Manage computers Computers Password Change password Save

License key not required

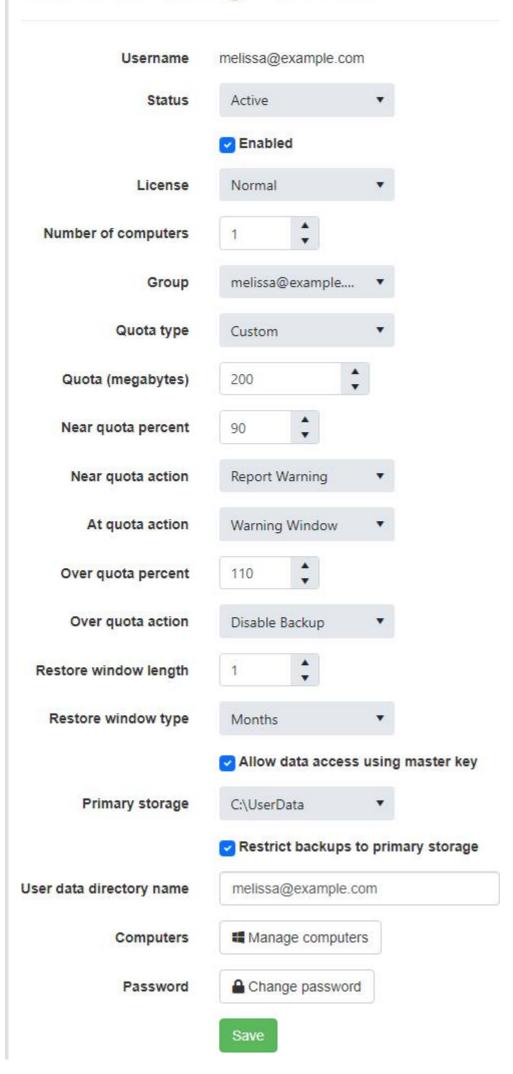
If a license key is not required for the cloud storage account, the number of computers, quota, and restore window fields can be modified.

Edit cloud storage account melissa@example.com Username Status Active Enabled Yes License Normal Number of computers melissa@example.com Group Quota type Custom Quota (megabytes) 200 90 Near quota percent Near quota action Report Warning At quota action Warning Window Over quota percent 110 Over quota action Disable Backup Restore window length Restore window type Months Computers Manage computers Password Change password

The administrator can also modify the "Account status", "Enabled", "License status", storage server group, master key access, primary storage, and user data directory fields of the cloud storage account.

Save

Edit cloud storage account

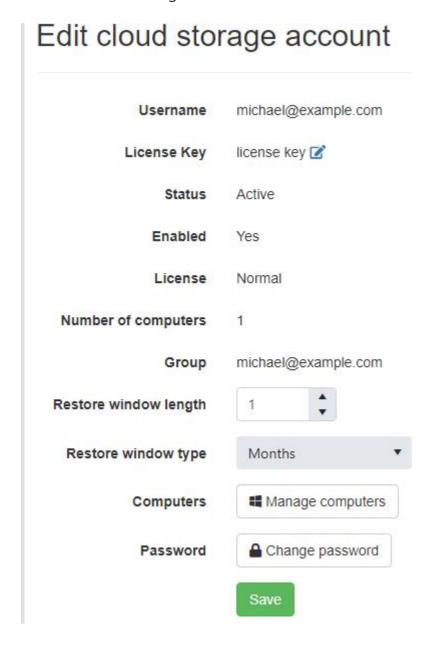


PERMISSIONS REQUIRED

Edit Cloud Storage Accounts

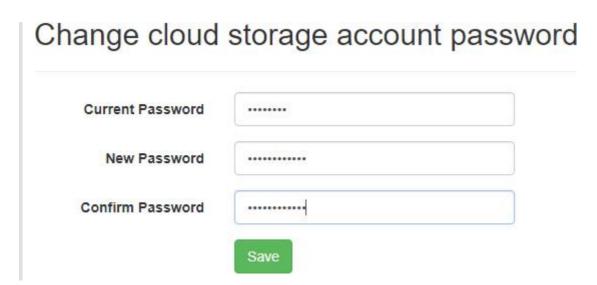
Change the password

From the cloud storage account details view, click on the "Edit" button.



Click on the "Change password" button.

Enter the current cloud storage account password, the new cloud storage account password, and click on "Save" to continue.



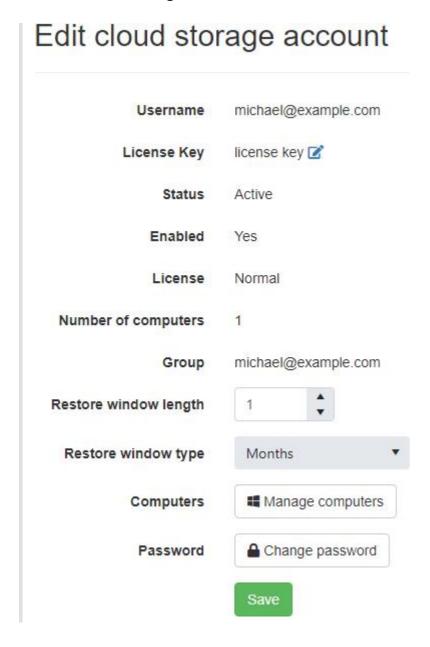
PERMISSIONS REQUIRED

Edit Cloud Storage Accounts

Change the license key

The backup client license key can be changed only if one was used to create the cloud storage account.

From the cloud storage account details view, click on the "Edit" button.



Click on the "Edit" icon next to the "License Key" field.

The "Edit" icon will not be displayed if a license key wasn't used to create the cloud storage account.

Enter the new backup client license key and click on "Save" to change the license key associated with the cloud storage account.

If the backup client license is disabled, expired, doesn't support cloud storage, or if it has an expired upgrade subscription, it can't be used as the new license key.

Change license key Username michael@example.com Backup Client License Key new license key Save

• PERMISSIONS REQUIRED

Edit Cloud Storage Accounts

Delete an account

To permanently delete your cloud storage account, and its associated data, from the cloud storage account details view, click on the "Delete" button.

The following page will allow you to confirm its deletion.

You will not be able to restore any data associated with the account after deleting it.

Are you sure you want to delete this cloud storage account?

Username	michael@example.com
Backup Client License Key	license key

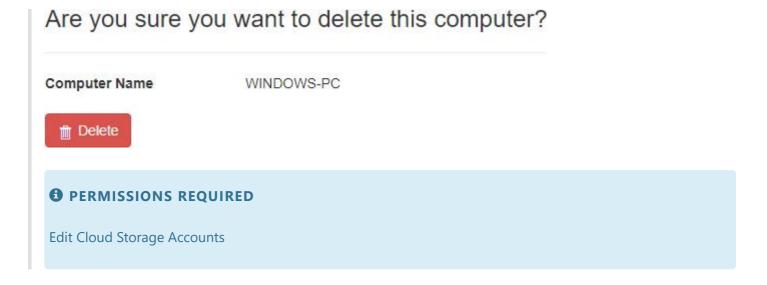


Edit Cloud Storage Accounts

Delete a computer

To permanently delete a computer attached to the cloud storage account, and its associated data, from the "Cloud Storage Account Computers" view, click on the "Delete" button next to the computer. The following page will allow you to confirm its deletion.

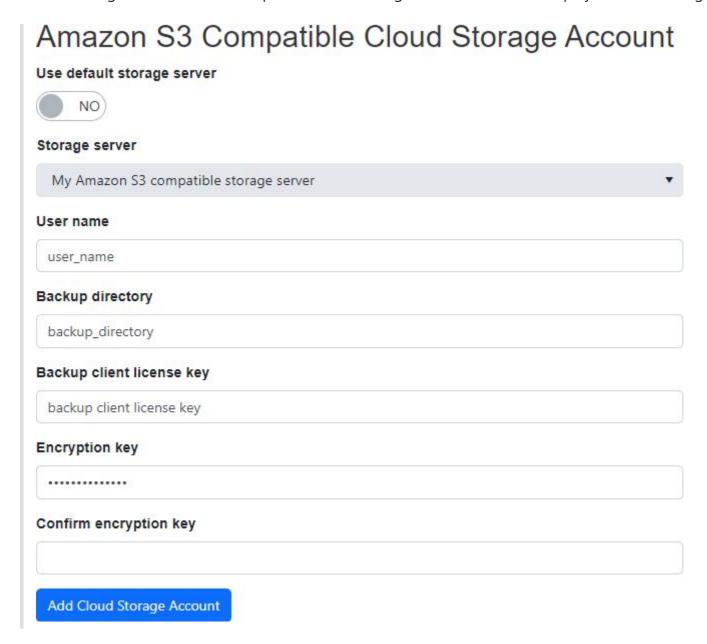
You will not be able to restore any data associated with the computer after deleting it.



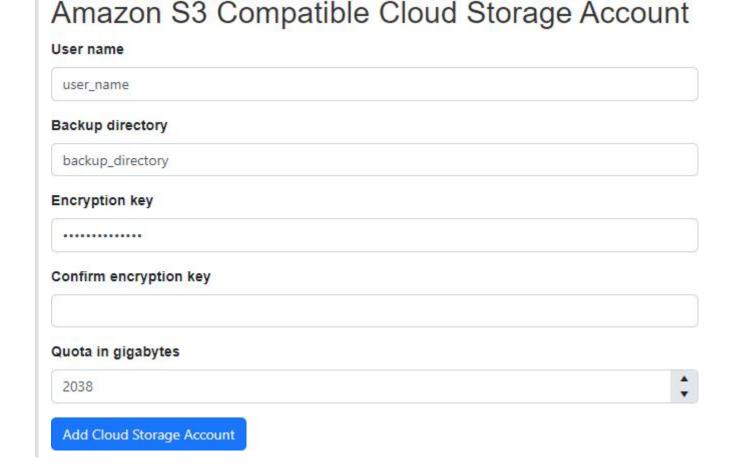
Add Amazon S3 compatible cloud storage account

Enter the required values and click on the "Add Cloud Storage Account" button.

After creating the Amazon S3 compatible cloud storage account, it will be displayed in the data grid.



After creating the Amazon S3 compatible cloud storage account with quota, it will be displayed in the data grid.



Use default storage server

The "Use default storage server" switch is displayed for users who can select more than one storage server and don't have explicit access to the default storage server.

When this is switched off, the user can select a specific storage server, if any are accessible for the logged in user.

Storage server

The "Storage server" drop down list is displayed for users who have access to select more than one storage server. If the "Use default storage server" switch is displayed, it must also be switched off.

The selected storage server will be used when creating the cloud storage account.

User name

- Required
- Maximum length is 40

Backup directory

- Required
- Maximum length is 19

Backup client license key

- Required if displayed.
- Not displayed if not required.
- Maximum length is 256
- The license key must meet the following requirements:
 - A valid backup client license key
 - Enabled
 - Not expired (NovaCare)
 - Has cloud storage capacity
- Is mutually exclusive with the quota.

Encryption key

- Minimum length is 10
- Maximum length is 30

Quota (in Gigabytes)

- An empty value indicates there is no/unlimited quota.
- Is mutually exclusive with the backup client license key.
- Minimum value is 0
- Maximum value is 2147483647

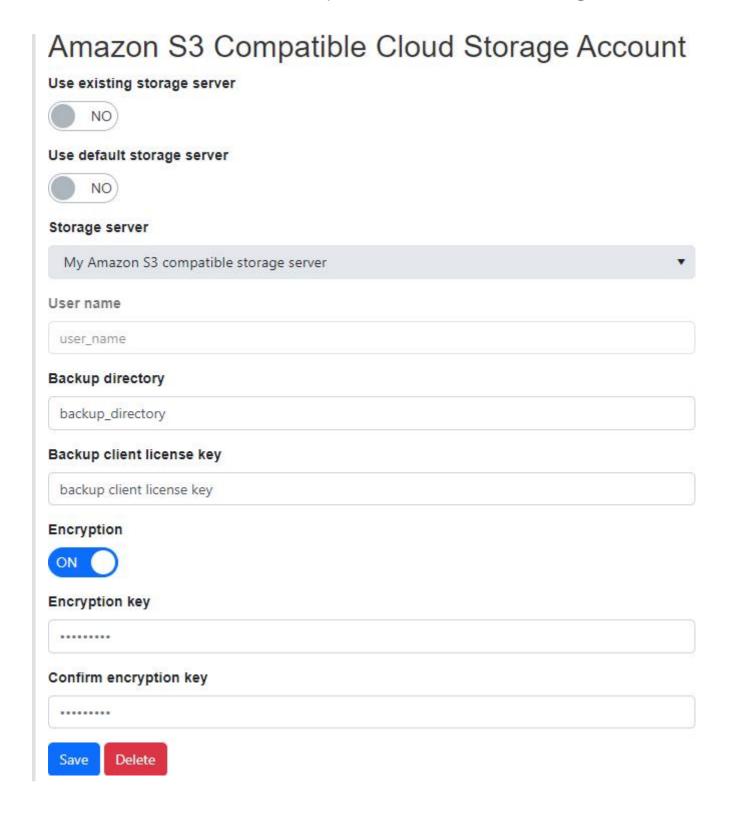
1 PERMISSIONS REQUIRED

Edit Cloud Storage Accounts

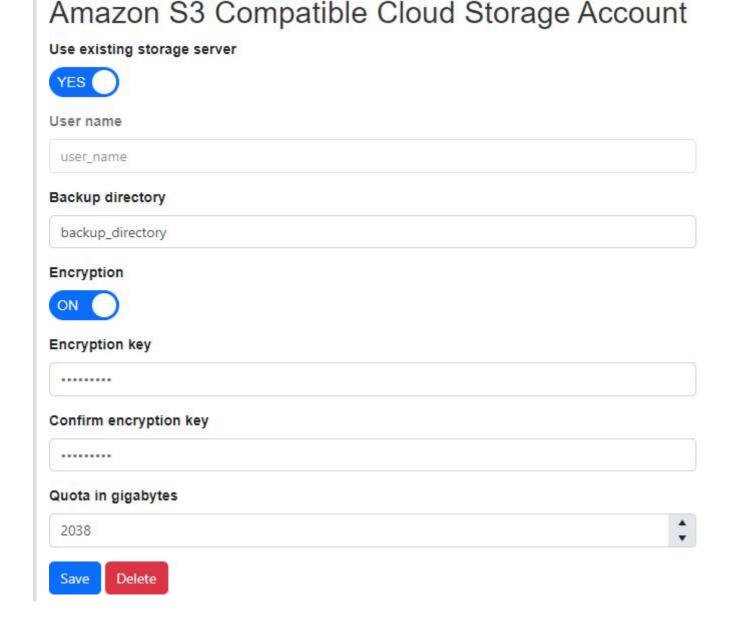
Related topics:

Create a cloud storage account

View Amazon S3 compatible cloud storage account



View Amazon S3 compatible cloud storage account with quota



The User Name will always appear as read only regardless of whether user have Edit Cloud Storage Accounts permission or not.

Users with the Edit Cloud Storage Accounts role permission may edit the Amazon S3 Compatible Cloud Storage Account. Otherwise the following fields will be read-only:

- Use existing storage server
- Use default storage server
- Storage server
- Backup Directory
- Backup Client License Key
- Encryption
- Encryption Key
- Quota (in Gigabytes)

Use existing storage server

The "Use existing storage server" switch is displayed for users who don't have explicit access to the original storage server associated with the cloud storage account and can select more than one

storage server.

If the storage server is changed from this inaccessible non-default storage server, the cloud storage account will no longer be able to be updated back to the original storage server.

Use default storage server

The "Use default storage server" switch is displayed for users who can select more than one storage server and don't have explicit access to the default storage server.

If the "Use existing storage server" switch is displayed, it must also be switched off.

When this is switched off, the user can select a specific storage server, if any are accessible for the logged in user.

The "Use default storage server" switch will be disabled if there are no other accessible storage servers.

Storage server

The "Storage server" drop down list is displayed for users who have access to select more than one storage server.

If the "Use existing storage server" switch is displayed, it must also be switched off.

If the "Use default storage server" switch is displayed, it must also be switched off.

The selected storage server will be used when updating the cloud storage account.

Update

Click on the "Save" button to update an Amazon S3 compatible cloud storage account.

Delete

Click on the "Delete" button to delete an Amazon S3 compatible cloud storage account.

"Delete" button is disabled if the user doesn't have permission to "Edit Cloud Storage Accounts".

6 PERMISSIONS REQUIRED

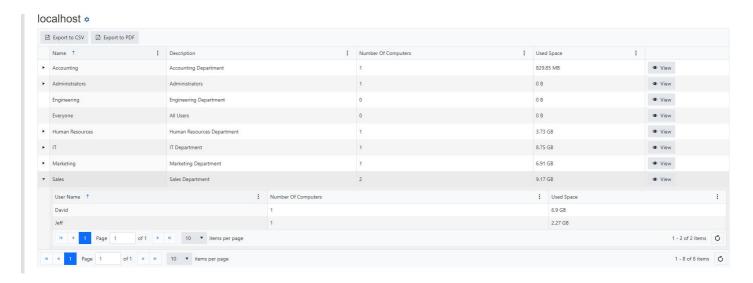
View Cloud Storage Accounts

Related topics:

Storage Server

The "Storage Server" view allows an administrator to view NovaBACKUP Storage Server groups and users.

The administrator must first add a Storage Server.



The column menus can be used to sort, show and hide columns, and filter the data.

The "Status", "Quota Setting", "Quota", "Number Of Users", and "Used Gigabytes" columns are hidden by default.

Users can click on the "Export to CSV" button to create a comma-separated values (CSV) file containing the list of all storage server groups without users.

Users can click on the "Export to PDF" button to create a Portable Document Format (PDF) file containing the list of all storage server groups without users.

The exported file will contain the following columns:

COLUMN NAME	DESCRIPTION
Name	The name of the storage server group.
Description	The description of the storage server group.
NumberOfUsers	The number of users in the storage server group.
NumberOfComputers	The total number of computers in the storage server group.
UsedGigabytes	The amount of storage space used in gigabytes.

• PERMISSIONS REQUIRED

One of the following permissions is required:

View Storage Server Groups

Edit Storage Server Groups

Settings

Security
Agent
Notification
Users
User Registration Settings
Roles
Storage Servers
Used Space
Web Hook
Update
Application
Backup Client Setup Installers

Agent Settings

The Agent Settings page allows you to configure the timeout and ping interval for agent connections.

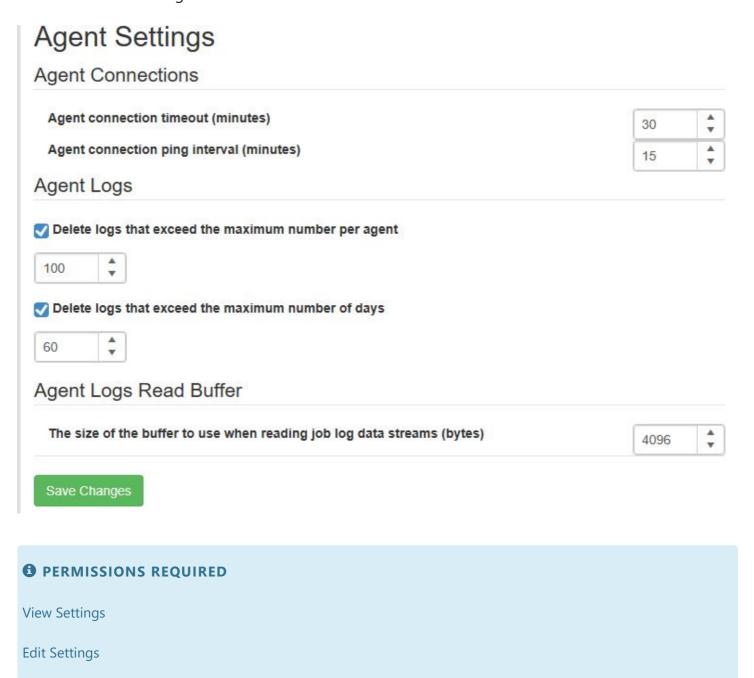
It also allows you to configure the maximum number of logs per agent and the time old logs are purged from the database.

When using the SQLite database provider:

- The buffer size on the server used when reading log files streamed from the client is configurable on this page.
- The maximum log file size that can be stored in the database is around 1GB.

When using the Microsoft SQL Server database provider:

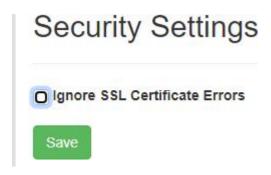
• The maximum log file size that can be stored in the database is around 2GB.



Security Settings

The "Security Settings" view allows an administrator to ignore SSL certificate errors.

Ignoring SSL certificate errors is not recommend.



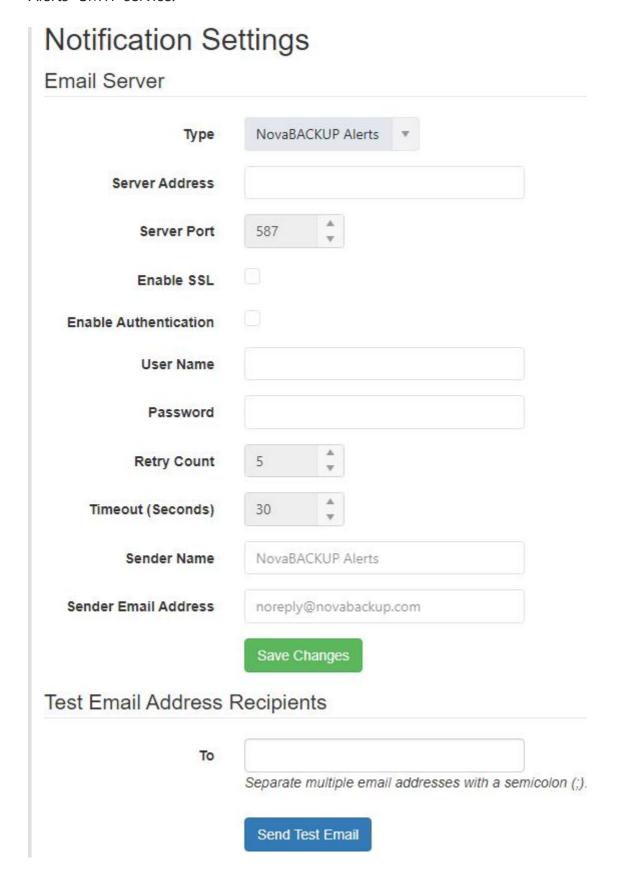


View Settings

Edit Settings

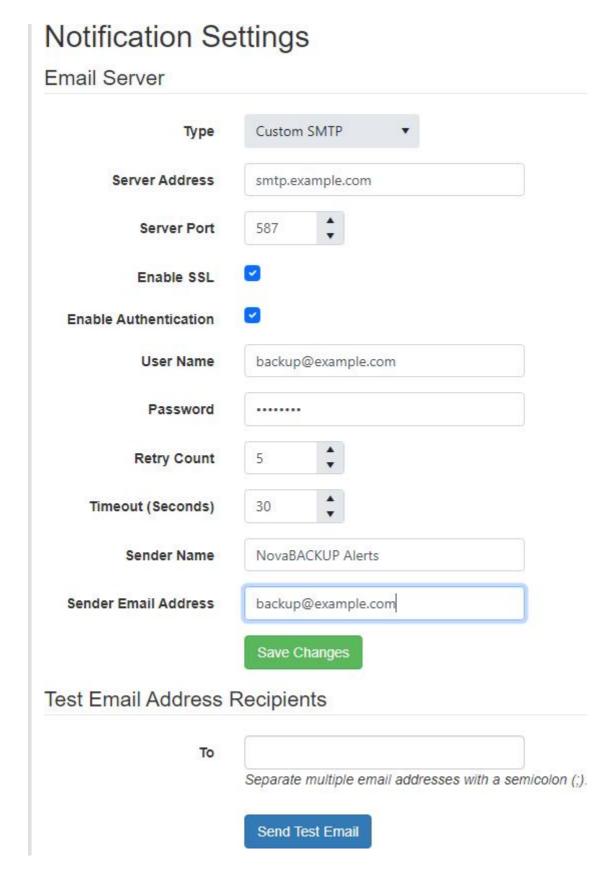
Notification Settings

To configure how the **Notification e-mails** are sent you, click on the "**Notification**" menu item under the "**Settings**" menu item. Notification e-mails are delivered **by default** via the built-in "NovaBACKUP Alerts" SMTP service.



You can also configure CMon to send Notifications using a "**Custom SMTP**" server. Make sure to fill in all of the details that are prompted for. Once the prompts are filled in click the " **Test Email Settings** "

button to verify all of the settings are correct prior to saving, otherwise your Notification e-mails will fail.

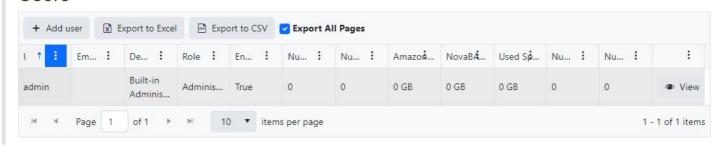




Users

The Users page is used to manage user accounts.

Users



Users with permissions to Edit Users can click the Add user button to create a new user.

The column menus on the data grid can be used to sort, show, hide, lock columns, and filter data.

The Storage Server Group column is hidden by default.

Click on the View button next to the user to navigate to the user's details page, where they can also be updated and deleted.

Export

The exported file contains the list of users, sorted and filtered to match the current view.

If the "Export All pages" check box is check-marked, then the data in all pages will be exported.

The exported file will contain the following columns:

COLUMN NAME	DESCRIPTION
UserName	The user name.
EmailAddress	The email address for the user.
Description	The user description.
Role	The user role.
Enabled	Indicates whether the user is enabled or not.
StorageServerGroup	The NovaBACKUP Storage Server group.

COLUMN NAME	DESCRIPTION
Number Of Agents	Total number of agents the user can manage.
Number Of Cloud Storage Accounts	Total number of cloud storage accounts the user can manage.
Amazon S3 Compatible Cloud Storage Accounts Used Space In Gigabytes	Total space used for Amazon S3 compatible cloud storage accounts the user can manage, which has been previously calculated.
NovaBackupCloudStorageAccountsUsedSpaceInGigabytes	Total space used for NovaBACKUP cloud storage accounts the user can manage.
UsedSpaceInGigabytes	Total space used for NovaBACKUP and Amazon S3 compatible cloud storage accounts the user can manage.
Number Of Agents Running On Microsoft Windows Work station Operating System	Total number of agents the user can manage which are running on a Microsoft Windows Workstation operating system.
Number Of Agents Running On Microsoft Windows Server Operating System	Total number of agents the user can manage which are running on a Microsoft Windows Server operating system.

Export to CSV

Click on the "Export to CSV" button to create a comma-separated values (CSV) file.

Export to Excel

Click on the "Export to Excel" button to create a excel file.



View Users

Related topics:

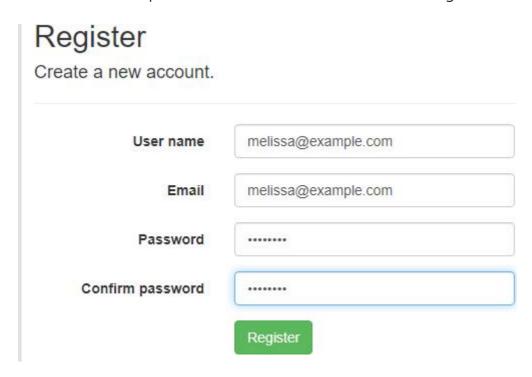
Create a user

View a user

User registration

From the "Log in" view, click on the "Register" button to register for a new account.

Enter a username, password, email address, and click the "Register" button to continue.



The username must be unique.

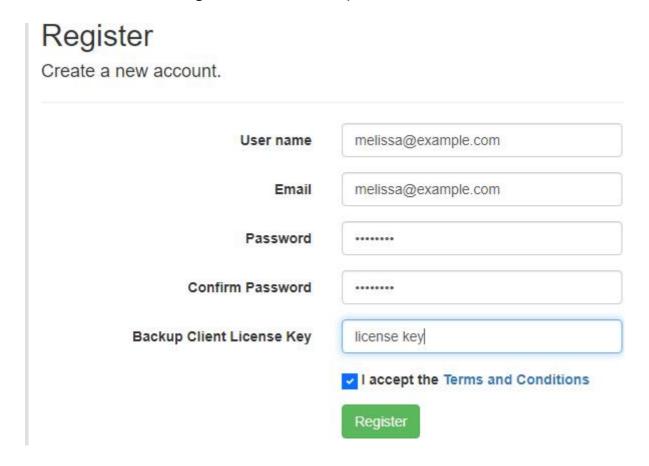
Related topics:

User registration settings

User registration and creating a cloud storage account in one step

User registration and creating a cloud storage account in one step

When using the embedded web browser dialog from within the backup client, clicking on the "Register" button from the "Log in" view displays a page allowing you to register for a new account and create a cloud storage account in one step.

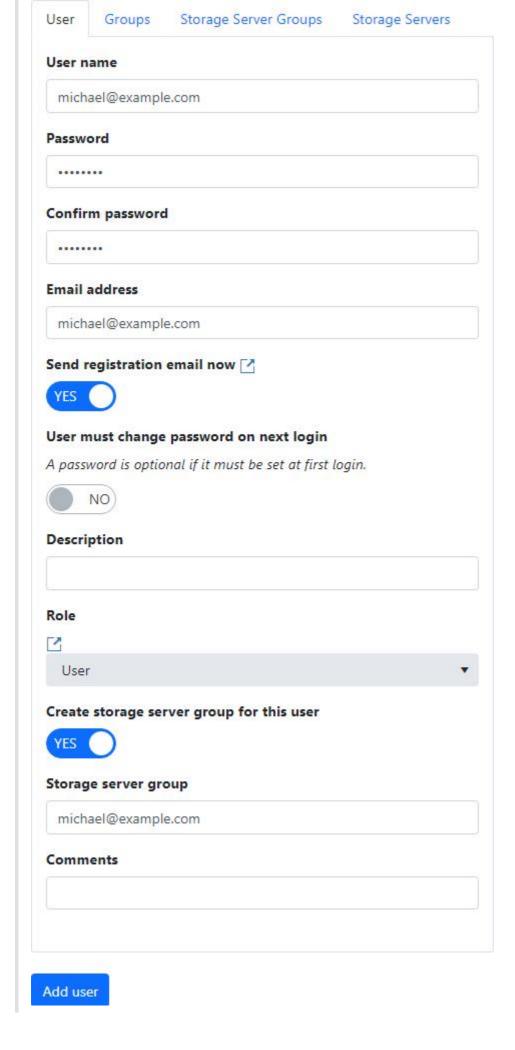


Related topics:

User registration settings
User registration
Add a storage server
Create a cloud storage account

Create a user

The Create user page is used to add a new user.



User

- Required
- Must be less than or equal to 50 characters
- Must be unique

Password

- If set, must be between 6 and 100 characters
- If not set, then Send registration email now and User must change password on next login must be enabled.

Confirm password

If set, the password and confirmation password must match.

Email address

- Required
- Must be less than or equal to 128 characters
- Must be a valid email address format

Send email registration now

Sends the user a registration email which contains a link to the Set Password page, to allow them to set their password.

The set password link expires after 30 days.

User must change password on next login

Requires the user to change their password the next time they login.

Description

Must be less than or equal to 128 characters

Role

Required

Create storage server group for user

This field is displayed if the logged in user can view storage servers and storage server groups, and a NovaBACKUP storage server exists.

If enabled, a storage server group is created when the user is created.

This field is displayed if the logged in user can view storage servers and storage server groups, and a NovaBACKUP storage server has been configured.

- Required
- Must be less than or equal to 128 characters
- Must be unique if Create storage server group for user is enabled

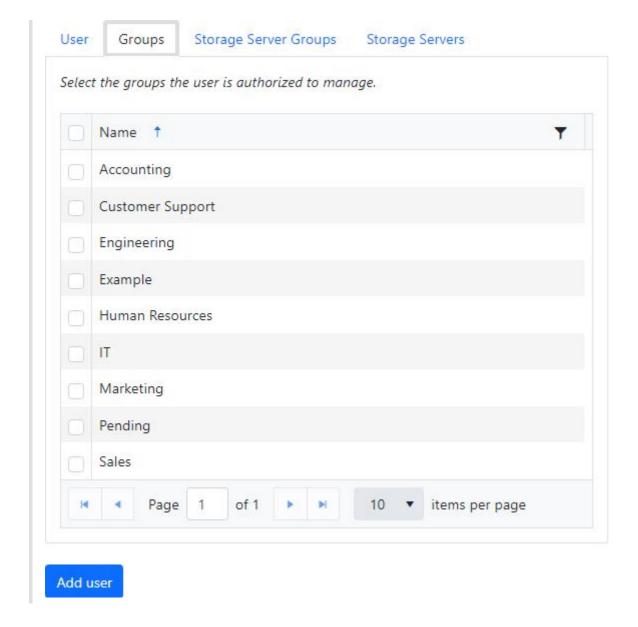
Comments

• Must be less than or equal to 255 characters

Groups

The Groups tab is enabled if the logged in user has permissions to View Agents and Groups.

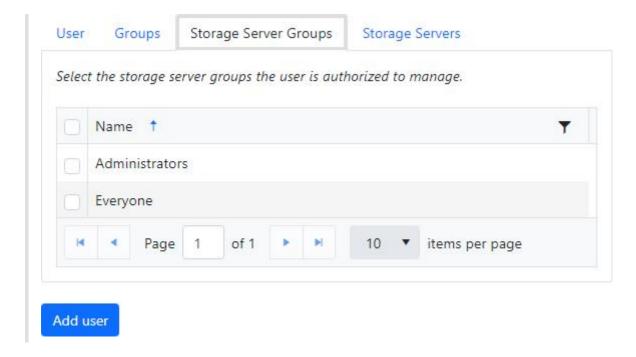
Select the groups the user is authorized to manage.



Storage Server Groups

The Storage Server Groups tab is enabled if the logged in user has permissions to View Storage Servers and a NovaBACKUP storage server has been configured.

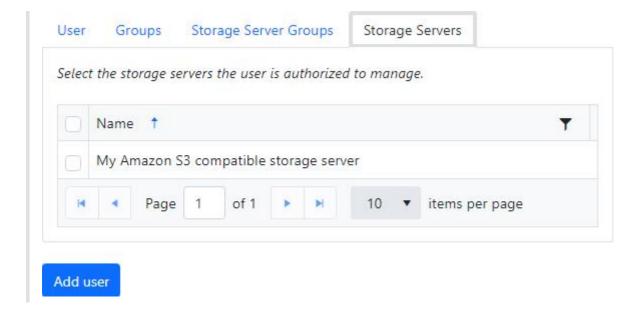
Select the NovaBACKUP storage server groups the user is authorized to manage.



Storage Servers

The Storage Servers tab is enabled if the logged in user has permissions to View Storage Servers and has access to at least one Amazon S3 compatible storage server.

Select the Amazon S3 compatible storage servers the user is authorized to manage.



Add user

Click the "Add user" button to create the user.



Edit Users

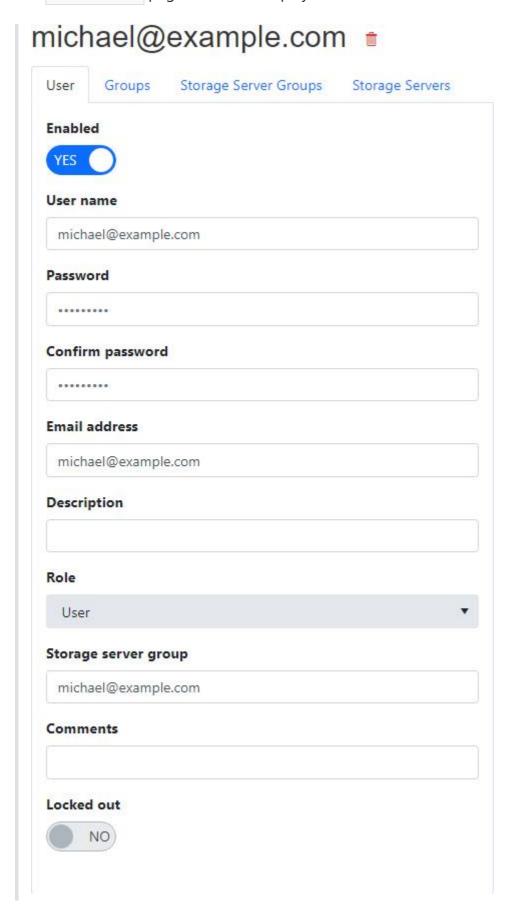
Related topics:

Roles

Storage Servers

View a user

The User details page is used to display the details of a user.



Users with Edit Users permissions can also update and delete the user.

Changes to the user are automatically saved.

Delete

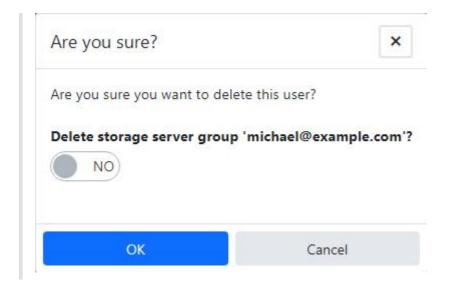
The logged in user must have permissions to Edit Users to delete a user.

The logged in user cannot be deleted.

If the user is attached to a storage server group, the logged in user must have permission to Edit Storage Server Groups to delete the user in order to determine if the storage server group should also be deleted or not.

If the user's user name is admin, they cannot be deleted.

Click on the Delete button to delete the user.



If "Delete Storage Server Group" is switched on, the storage server group attached to the user will also be deleted.

The default storage server group cannot be deleted.

The storage server group cannot be deleted if it's associated with other users.

The storage server group cannot be deleted if it's being used with one or more cloud storage accounts.

Click on the OK button to confirm to delete the user.

User

Enabled

If the user is disabled, they cannot log in.

The logged in user cannot be disabled.

- Required
- Must be less than or equal to 50 characters
- Must be unique

To change the user name of the logged in user, click on the pencil icon.

When changing the user name of the logged in user, the page will refresh automatically.



Password

The logged in user must have permission to Reset User Passwords in order to change the user's password.

• If set, must be between 6 and 100 characters

Confirm password

If set, the password and confirmation password must match.

Email address

- Required
- Must be less than or equal to 128 characters
- Must be a valid email address format

Description

• Must be less than or equal to 128 characters

Role

The logged in user must have permission to View Roles in order to view the user's role.

Required

Storage server group 166

This field is displayed if the logged in user can view storage server groups, and a NovaBACKUP storage server has been configured.

- Required
- Must be less than or equal to 128 characters
- Must exist in the storage server

Comments

• Must be less than or equal to 255 characters

Locked out

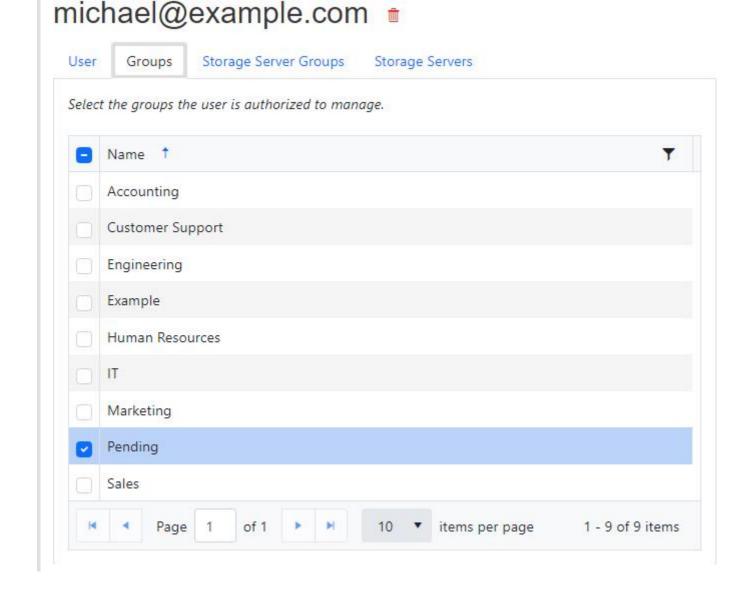
Only users who are locked out can be unlocked.

Users may be locked out after too many consecutive attempts to login because of an invalid password.

Groups

The Groups tab is enabled if the logged in user has permissions to View Agents and Groups.

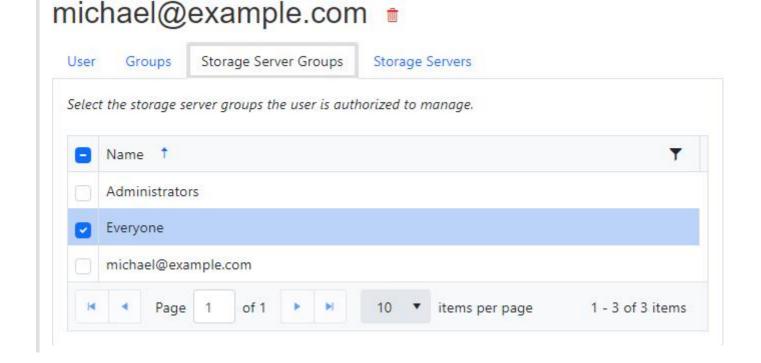
Select the groups the user is authorized to manage.



Storage Server Groups

The Storage Server Groups tab is enabled if the logged in user has permissions to View Storage Servers and a NovaBACKUP storage server has been configured.

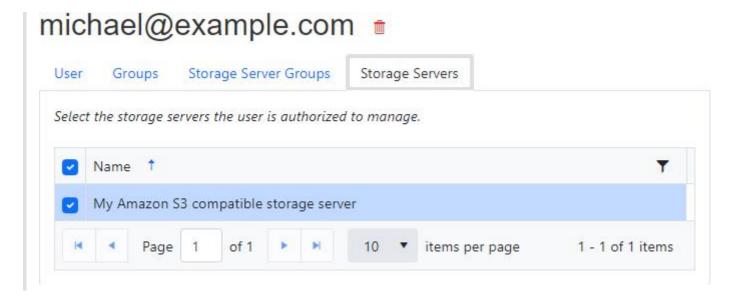
Select the NovaBACKUP storage server groups the user is authorized to manage.



Storage Servers

The Storage Servers tab is enabled if the logged in user has permissions to View Storage Servers and has access to at least one Amazon S3 compatible storage server.

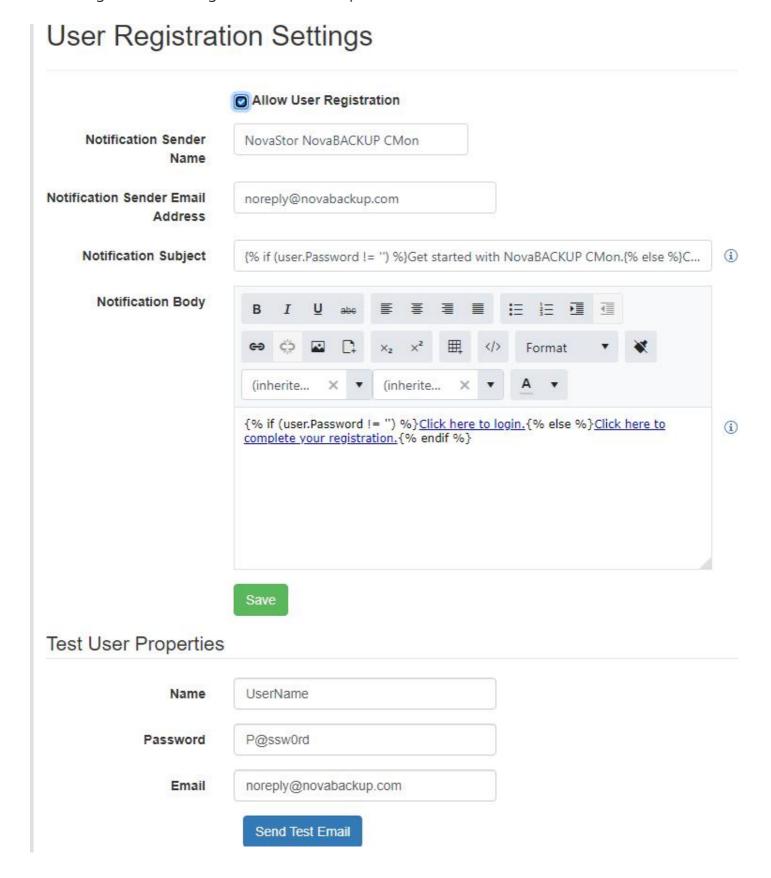
Select the Amazon S3 compatible storage servers the user is authorized to manage.





User Registration Settings

The "User Registration Settings" view allows an administrator to enable or disable user registrations and configure the user registration email template.



The notification email sender name and email address are editable only when using a custom SMTP server.

Notification Email

The user registration notification email subject and body are templates that use markup to output text based on conditions and variables.

Syntax

Introduction

TYPE	DESCRIPTION
Objects	Objects produce content. Object names are denoted by double curly braces: {{ and }}.
Tags	Tags create the logic and control flow for templates. They are denoted by curly braces and percent signs: {% and %}. The markup used in tags does not produce any visible text.

Control flow

SYNTAX	DESCRIPTION
if	Executes a block of code only if a certain condition is true.
elsif / else	Adds more conditions within an if block.
endif	Indicates the end of an if control block.

Operators

SYNTAX	DESCRIPTION
==	equals
!=	does not equal
>	greater than
<	less than
>=	greater than or equal to
<=	less than or equal to
or	logical or

SYNTAX	DESCRIPTION
and	logical and

Built-in objects

OBJECT NAME	DESCRIPTION
user.Name	The user's username.
user.Email	The user's email address.
user.Password	The user's password. Putting a password in plain text in an email isn't recommended.
SetPasswordToken	The token used to set the user's password.
SetPasswordUrl	The URL of the page which allows the user to set their password.
LoginUrl	The URL of the login page.

1 PERMISSIONS REQUIRED

View Settings

Edit Settings

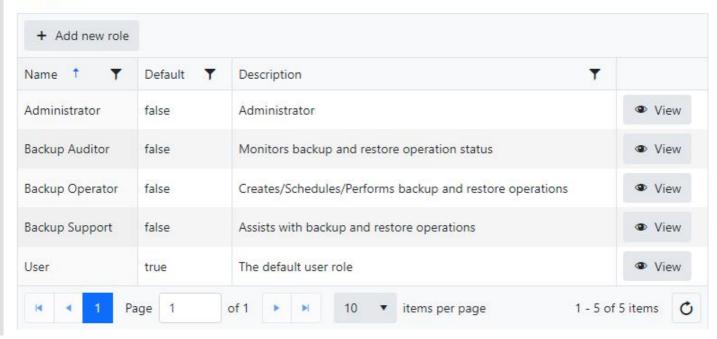
Related topics:

Notification Settings User registration

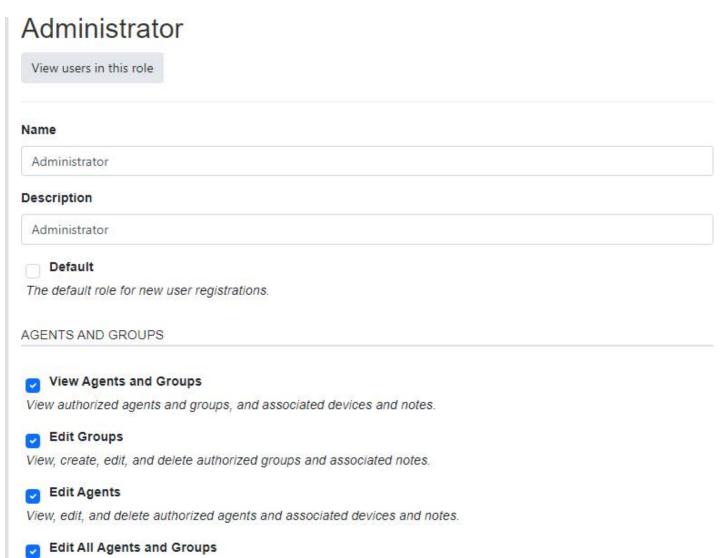
Roles

The "Roles" page contains the ability to create, view, and edit Roles. Once on the Roles page you can click on "Add new role" button to add new roles. From there you will be able to define a custom role.

Roles



Click on the **View** button to view the details of a role.



View, create, edit, and delete all agents and groups. CLOUD STORAGE ACCOUNTS View Cloud Storage Accounts View cloud storage accounts. Edit Cloud Storage Accounts View, edit, and delete cloud storage accounts. DASHBOARD View Dashboard View the dashboard for authorized agents and groups. Edit Dashboard Edit dashboard. **JOBS**

View Jobs and Job History

View jobs and job histories for agents in authorized groups.

✓ View Jobs Logs

View jobs, job history, and logs for agents in authorized groups.

View Job History

View jobs, job history, and logs for agents in authorized groups.

Edit Jobs

View jobs, job history, and delete job logs for agents in authorized groups.

Start Backup Jobs

Start all the backup jobs.

Create Restore Jobs

Create restore jobs.

Stop Jobs

Stop all the jobs.

NOTIFICATIONS

View Notifications

View triggers, notification history, and notification settings.

Edit Notifications

View, create, edit, and delete triggers, notification history, and notification settings.

REPORTS

View Reports

View the reports for authorized agents and groups.

Edit Reports 174

Edit the reports. ROLES View Roles View all roles. Edit Roles View, create, edit, and delete all roles. SETTINGS View Settings View global application settings. Edit Settings View, edit, and delete global application settings. STORAGE SERVERS ✓ View Storage Servers View storage servers. View Storage Server Details View storage server details. View Storage Server Groups View storage server groups. Edit Storage Servers View, edit, and delete storage servers. Edit Storage Server Groups View and edit storage server groups. Edit All Storage Servers View, create, edit, and delete all storage servers. Edit All Storage Server Groups View, create, edit, and delete all storage server groups. USERS

View Users

View all users.

Edit Users

View, create, edit, and delete all users.

Reset User Passwords

Reset user passwords.



• PERMISSIONS REQUIRED

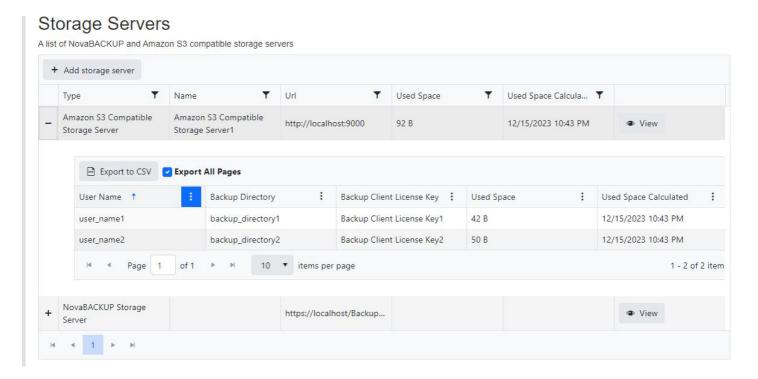
View Roles

Edit Roles

Storage Servers

The "Storage Servers" view allows an administrator to manage NovaBACKUP Storage Servers and Amazon S3 compatible storage servers.

In order for users to create cloud storage accounts, a Storage Server must be added.



COLUMN NAME	DESCRIPTION
Туре	The type of storage server. ("NovaBACKUP Storage Server" or "Amazon S3 Compatible Storage Server")
Name	The name of the storage server.
Url	The URL of the storage server.
Used Space	The amount of storage space used in bytes since it was last calculated. An empty value indicates the storage server could not be contacted.
Used Space Calculated	The date and time when the successful calculation of "Used Space" was completed.
1 PERMISSIONS REQUIRED	
View Storage Server Details	

Add a storage server

From the "Storage Servers" view, click on the "Add storage server" button to add a new storage server.

Select "NovaBACKUP Storage Server" from the "Storage server type" drop down.

Enter the web URL and key for the Storage Server API and click the Next button to continue.

The storage server API is an optional feature installed with the NovaBACKUP Storage Server by default.

It's recommended to use HTTPS for a secure connection.

If a secure connection could not be established because of SSL certificate errors, the errors can be ignored in Security Settings, but this is not recommended.

The API key is configured in the storage server API's "appSettings.config" file and is case sensitive.

A randomly generated API key is created by default.

Create new storage server Enter the storage server API connection settings. API URL https://localhost/BackupServer API Key Back Next

Enter the storage server address and port and click the "Next" button to continue.

The storage server address should be publicly resolvable by the backup client.

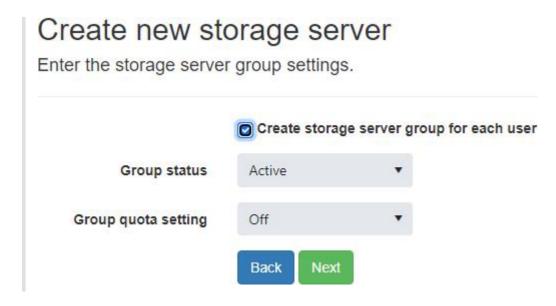
The storage server port is the port the backup server is configured to listening on.



Enter the storage server group settings and click the "Next" button to continue.

If the "Create storage server group for each user" check box is checked:

- 1. A new storage server group is created for new CMon users.
- 2. The name of the storage server group will be the same as the username of the CMon user.
- 3. New cloud storage accounts created for new CMon users will be assigned that storage server group.
- 4. The group status and quota settings will be used for the new storage server group.



Enter the storage server account settings and click the "Next" button to continue.

When the user is required to enter a backup client license key and the "Account Quota Setting" field is set to "Custom", the user account's quota will be set according to the quota specified for the backup client license key provided when the user signs up for an account.

Otherwise, the "Account Quota (Megabytes)" field must be specified if the user is not required to enter a backup client license key and the "Account Quota Setting" field is set to "Custom".

If a backup client license is used with a data storage quota greater than 2,147,483 GB, then the data storage quota on the cloud storage account will be limited to 2,147,483,647 MB.

When the "Account Quota Setting" field is set to "Group", the user account's quota will be set according to the quota specified for the storage server group specified in the previous step.

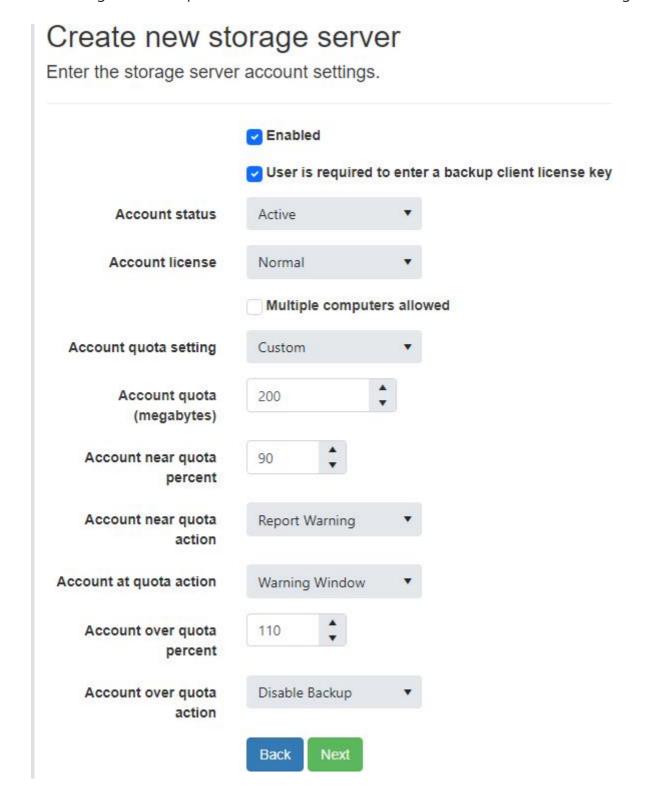
When the "Account Quota Setting" field is set to "No Quota", the user's account will have an unlimited amount of storage space.

The number of computers that can be backed up to the cloud storage account will be based on the maximum number of activations set on the backup client license used to create the account.

If a backup client license is used with a maximum number of activations greater than 5000, then the number of computers on the cloud storage account will be limited to 5000.

If the user is not required to enter a backup client license key, then the "Number of computers" must be specified if the "Multiple computers allowed" checkbox is checked.

The storage server help documentation contains more details about the other settings.



Enter the storage server account data storage and retention policy settings and click the "Next" button to continue.

If the cloud storage account was created with a backup client license key, the account will automatically be disabled if the backup client license is disabled, expired, no longer supports cloud storage, or if the upgrade subscription is expired.

The cloud storage account will automatically be re-enabled if the license and upgrade subscription, if any, become valid again.

An account can also be disabled from the storage server directly.

After an account is disabled, the user will not be able to connect to the storage server.

If the "Delete account after a grace period since the account was disabled" check box is checked, the account will be deleted after the specified grace period since the account was disabled.

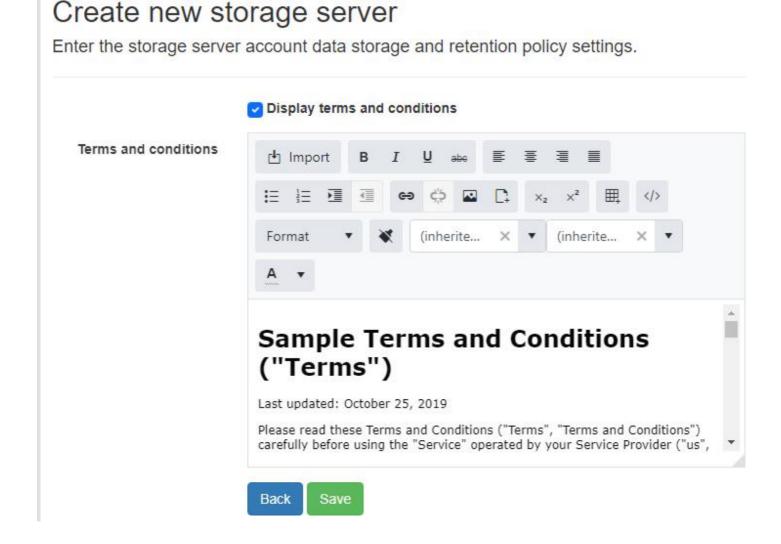
Create new st Enter the storage serve			n policy settings.
	Allow data acc	ess using master key	
Primary storage	C:\UserData	▼1	
	Restrict backu	ps to primary storage	
Restore window length	1 4		
Restore window type	Days	▼*	
	Delete accoun	t after a grace period sin	ice the account was disabl
Grace period (in days) before account is deleted	60		
	Back Next		

Optionally enable displaying the terms and conditions and click the "Save" button to continue.

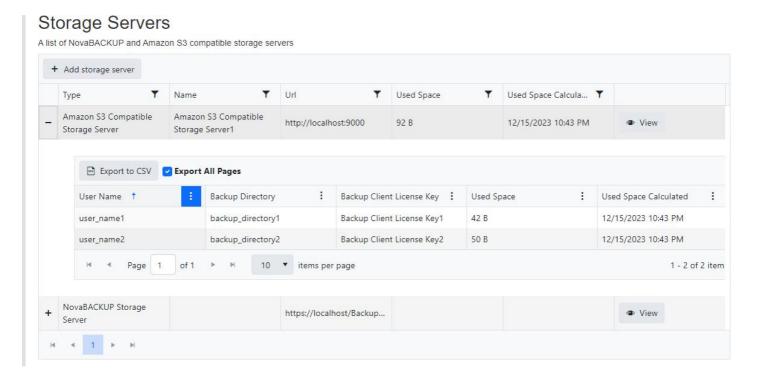
If enabled, the user must accept the terms and conditions before a cloud storage account is created.

The Import button can be used to insert a Microsoft Office Open XML Format word processing document (DOCX), Rich Text Format (RTF), Adobe Portable Document Format (PDF), HyperText Markup Language (HTML), and plain text (txt) file into the terms and conditions editor.

For more details on how the terms and conditions is displayed, see Terms and Conditions.



After creating the storage server, it will be displayed in the data grid.



Only one storage server is supported.

The CMon will periodically query the license for any changes and update the cloud account accordingly.



Edit Storage Servers

Related topics:

Create a cloud storage account

Add Amazon S3 compatible storage server

From the "Storage Servers" view, click on the "Add storage server" button to add a new Amazon S3 compatible storage server.

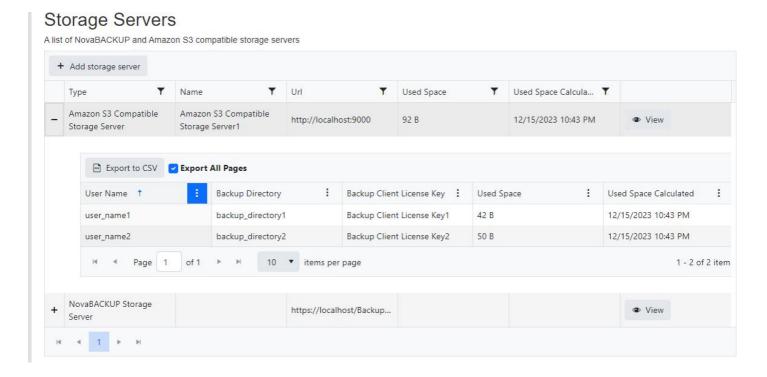
Select "Amazon S3 Compatible Storage Server" from the "Storage server type" drop down.

Enter the Name, URL, Access Key Id, Secret Access Key and Bucket Name.

Optionally enable/disable "User is required to enter backup client license key".

Also optionally enter the "Terms and Conditions" and click on the "Add Storage Server" button.

After creating the storage server, it will be displayed in the data grid.



Default

Indicates whether this is the default storage server to use for new cloud storage accounts.

Default value: Yes

Name

- Required
- Maximum length is 50
- Default value: My Amazon S3 compatible storage server

URL

• Required 184

- Maximum length is 256
- Must be in a valid URL format

Access Key Id

- Required
- Maximum length is 128

Secret Access Key

- Required
- Maximum length is 256

Bucket Name

- Required
- Minimum length is 3
- Maximum length is 63

Timeout

- OFF: infinite
- Minimum duration: 1 second
- Maximum duration: 23 hours, 59 minutes, and 59 seconds
- Default duration: 1 minute, 40 seconds
- Minimum hours: 0
- Maximum hours: 23
- Minimum minutes: 0
- Maximum minutes: 59
- Minimum seconds: 0
- Maximum seconds: 59

1 PERMISSIONS REQUIRED

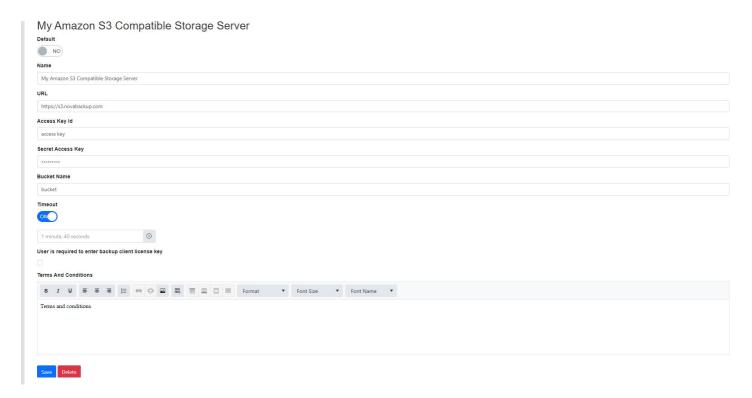
Edit Storage Servers

Related topics:

Create a cloud storage account

View Amazon S3 compatible storage server

From the "Storage Servers" view, click on the "View" button next to the Amazon S3 Compatible Storage Server to view its details.



Users with the Edit Storage Servers role permission may edit the Amazon S3 Compatible Storage Server. Otherwise the following fields will be read-only:

- Name
- URL
- Access Key Id
- Secret Access Key
- User Is Required To Enter Backup Client License Key
- Bucket Name
- Terms and Conditions

Delete Amazon S3 compatible storage server

The "Delete" button will be disabled if any of the following conditions is true:

- The user doesn't have permission to "Edit Storage Servers"
- The storage server is marked as the default storage server
- The storage server has cloud storage accounts

PERMISSIONS REQUIREDView Storage Server Details

Related topics:

Add Amazon S3 compatible storage server

Used Space and Backup Client License Storage Settings

The "Used Space and Backup Client License Storage Settings" page is used to configure the behavior of periodically recalculating the used space for storage servers and cloud storage accounts.

The background service is disabled and has a 12 hour interval period by default.

If enabled, the used space for storage servers and cloud storage accounts will be recalculated when the web application is started.

The background service will iterate through each storage server and cloud storage account to recalculate their used space.

If there are any cloud storage accounts associated with backup client license keys, the backup client license expiration dates are also retrieved from the license server.

After the background service has finished recalculating the used space, it will wait until the specified interval period has elapsed before recalculating the used space again.

The used space will be recalculated for each storage server and cloud storage account in parallel, with a maximum degree of parallelism set to the number of processors of the current machine.

The minimum interval is 1 minute.

The maximum interval is 99 days, 23 hours, and 59 minutes.

If the background service is currently recalculating used spaces, any changes to these fields will take affect after the recalculation has completed.

If the background service is disabled and not currently recalculating used spaces, the web application will check every 5 minutes to see if it has been enabled.



Saving

Only users with the Edit Settings role permission may save changes to these fields.

Logging

To enable logging specifically for the periodic timer:

- 1. Enable logging for the "Management Server" Web Site to at least the Info logging level.
- 2. Update appsettings.json and add the component within LogLevel:

 "ManagementServer.Web.Infrastructure.CloudStorageAccounts": "Information"
- 3. A message will be logged in the logs directory (ex. "C:\Program Files (x86)\NovaStor\NovaBACKUP Central Management\WebRoot\Web\bin\Logs"). For example:
- 4. Periodic recalculation of used space background service has started.
- 5. Periodic recalculation of used space background service has completed.
- 6. Periodic recalculation of used space background service failed.

9 PERMISSIONS REQUIRED

View Settings

Web Hook Settings

The Web Hook Settings page allows a user to view and modify the current web hook settings.

The web hook receiver is used to receive notifications from the License Server when a license has been updated. When a notification has been received, the cloud storage account associated with that license will be updated.

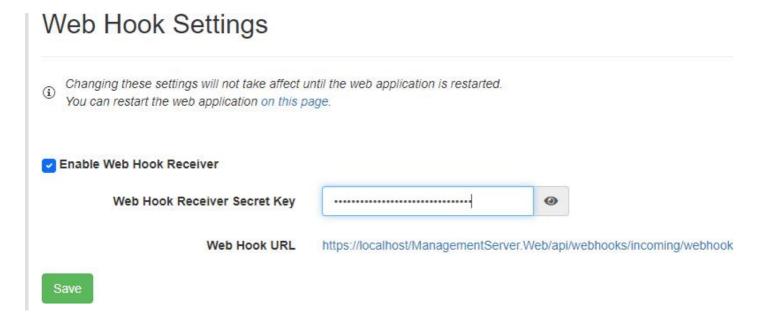
The web hook receiver secret key is required and must have a minimum of 32 and a maximum of 256 characters.

The web hook receiver secret key must not contain commas, equals signs, and leading or trailing spaces.

The secret key is used to verify that the caller is authorized to send requests.

The web hook receiver must be accessible using HTTPS for it to accept requests.

The web hook URL displayed is built based on the URL of the current page and may not be accurate depending on the hosting environment.



The web hook receiver also restricts access depending on the IP address of the caller.

See Web Hook IP Filter for more information.

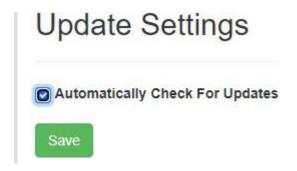


Update Settings

The "Update Settings" view allows an administrator to enable or disable automatically checking for updates.

It's recommend to enable automatically checking for updates to automatically receive notifications when a new update is available.

If enabled, the "Management Server" windows service automatically checks for updates every 7 days.



1 PERMISSIONS REQUIRED

View Settings

Edit Settings

Application Settings

The Application Settings page allows a user to restart the web application.

Application Settings

(i) Restarting the web application will expire all user sessions, and connected users may be logged off.

Restart web application now

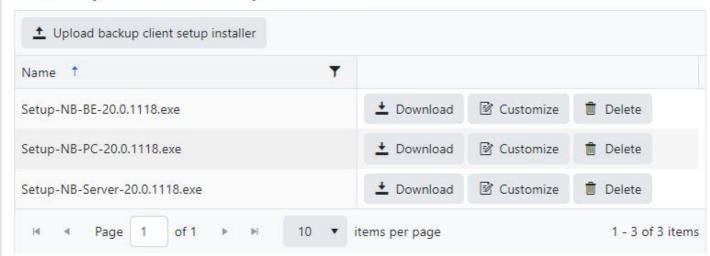
1 PERMISSIONS REQUIRED

Edit Settings

Backup Client Setup Installers

The "Backup Client Setup Installers" page displays the list of previously uploaded backup client setup installers.

Backup Client Setup Installers



COLUMN NAME	DESCRIPTION
Name	The name of the backup client setup installer file.
ACTION	DESCRIPTION
Download	Downloads the original backup client setup installer
Customize	Customizes the backup client setup installer
Delete	Deletes the backup client setup installer

Cache

If a customized backup client setup installer is downloaded with an associated Group and the default Management Server URL, as configured during installation, it will be cached so it doesn't need to be re-generated every time it is downloaded.

If the Group's hierarchy changes or the default Management Server URL changes, the backup client setup installer will be re-generated and the cache will be updated.

Software publisher certificate

Ff software publisher certificate available for a requested group then the backup client setup installer is signed with the software publisher certificate.

The following timestamp urls used for the signs the backup client setup installer.

http://timestamp.digicert.com
http://timestamp.comodoca.com/authenticode
http://timestamp.globalsign.com/scripts/timestamp.dll
http://tsa.starfieldtech.com
http://timestamp.comodoca.com/rfc3161
http://timestamp.sectigo.com?td=sha256

1 PERMISSIONS REQUIRED

View Agents And Groups

Related topics:

Upload Backup client setup installer Customize Backup client setup installer

Upload Backup Client Setup Installers

The "Upload Backup Client Setup Installers" page allows uploading a new backup client setup installer.

Upload Backup Client Setup Installer

Select files...
Accepted files:Exe

File Validation Rules

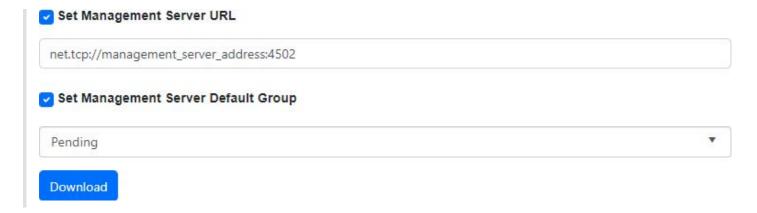
- The file is required
- The file name must be between 5 and 256 characters.
- The file name must have an exe file extension.
- The file name must be a valid windows file name.
- The file name should be unique.
- The file size must be between 1 byte and 1 GB.

1 PERMISSIONS REQUIRED

Edit Groups

Customize Backup Client Setup Installer

The "Customize Backup Client Setup Installer" page allows downloading a customized backup client setup installer with the Management Server URL for the agent to connect to automatically, and the default group the agent will appear under.



Set Management Server URL

- If check-marked, the backup client agent's management server URL will be modified.
- If not check-marked, the backup client agent's management server URL will not be modified.

Management Server URL

- If the logged in user has View Settings permissions, then the Management Server Public Server Address and Port, as configured in the CMon setup installer, are used to create the URL and is displayed by default.
- If this value is empty, the backup client agent's management server URL will be empty.
- URL Format like net.tcp://<management_server_address>:<port>
- Port must be between 1 and 65535

Set Management Server Default Group

- If check-marked, the backup client agent's management server's default group will be modified.
- If not check-marked, the backup client agent's management server's default group will not be modified.

Management Server Default Group

- If this value is empty, the backup client agent's management server's default group will be empty.
- Maximum length is 20

1 PERMISSIONS REQUIRED

Edit Group

View Agents and Groups

Related topics:

Backup client setup installer cache

Server Administration Desktop Application

The CMon Server Administration utility is a desktop application installed on the local server where CMon is installed.

A shortcut is created in the Start menu called "NovaBACKUP CMon Server Administration".

It allows you to change the CMon server address and port number and unlock user accounts.

Scheduled Task

A scheduled task named "NovaBACKUPManagementServer" is created in the Windows Task Scheduler that's responsible for sending notifications and deleting old job logs as configured in the settings.

The task does not delete job logs which have unsent notifications.

The configuration file contains a setting for the database command timeout.

The file is located in the Web installation directory. For example,

```
C:\Program Files (x86)\NovaStor\NovaBACKUP Central Management
Console\ScheduledTask\ManagementServer.Service.ScheduledTask.Console.exe.config
```

Database Command Timeout

The default value is 0 which prevents the command from timing out. An empty value will instruct the application to use the default database provider's timeout value.

```
<appSettings>
  <add key="DatabaseCommandTimeout" value="0"/>
</appSettings>
```

Web Configuration File

The web configuration file (web.config) contains some of the application settings such as the database connection string, log file path, log verbosity, and persistent login behavior.

The file is located in the Web installation directory. For example,

```
C:\Program Files (x86)\NovaStor\NovaBACKUP Central Management
Console\WebRoot\Web\bin\web.config
```

Persistent login settings

When a user chooses to login and persist their login information, the default behavior is to keep them logged in for 7 days since they last visited the web application.

```
<authentication mode="Forms">
    <!-- forms session times out in 7 days -->
    <forms loginUrl="~/Account/Login" slidingExpiration="true" path="/" name="ManagementServer"
timeout="10080" protection="All"/>
</authentication>
```

For more technical information about these configuration settings, see forms Element for authentication (ASP.NET Settings Schema).

Web Hook IP Filter

The web hook receiver restricts access depending on the IP address of the caller.

These restrictions are specified in the appsettings.json file in the web application installation directory.

Default File Path

32-bit Operating System

```
C:\Program Files\NovaStor\NovaBACKUP Central Management
Console\WebRoot\Web\bin\appsettings.json
```

64-bit Operating System

```
C:\Program Files (x86)\NovaStor\NovaBACKUP Central Management
Console\WebRoot\Web\bin\appsettings.json
```

Syntax

A semi-colon delimited list of allowed IP addresses.

Examples

One IP Address

```
{
    "WebHooksSafeList": "192.168.100.1"
}
```

Multiple IP Addresses

```
{
    "WebHooksSafeList": "192.168.100.1;192.168.100.2"
}
```

Application Programming Interface (API)

The API may change at any time in the future.

The documentation for the API is included with each installation instance of the CMon web application.

For example, https://localhost/ManagementServer/docs.

Replace "localhost" with the address of the web server.

The web page that hosts the documentation can also be used to send queries through the API.

Quick Start

To authenticate, send a POST request to

https://localhost/ManagementServer/api/Account/Authenticate.

To get a list of cloud storage accounts, send a GET request to

https://localhost/ManagementServer/api/CloudStorageAccounts?\$top=1.

Without \$top=1, it will return all cloud storage accounts, which may be expensive, so this request should be filtered.

To filter by a backup client license key, send a GET request to

https://localhost/ManagementServer/api/CloudStorageAccounts?\$filter=BackupClientLicenseKey
eq 'licenseKey'

Replace licensekey with the license key.

If the response returns an entity, then the license key is being used with a cloud storage account.

The returned entity will also contain properties for the used storage space and storage quota.

To minimize the amount of data being returned for improved performance, you can select only the properties you want.

For example,

https://localhost/ManagementServer/api/CloudStorageAccounts?\$filter=BackupClientLicenseKey eq 'licenseKey'&\$select=UsedBytes,ComputedFreeBytes,ComputedQuotaBytes

More technical documentation for specific query options can be found here:

http://docs.oasis-open.org/odata/odata/v4.01/odata-v4.01-part1-protocol.html

https://docs.oas is-open.org/odata/odata/v4.01/csprd06/part2-url-conventions/odata-v4.01-csprd06-part2-url-conventions.html

Help

Documentation

About

Known Issues

Troubleshooting Tips

Windows Service Logging

Standalone Web Server Logging

Web Site Logging

Scheduled Task Logging

Help Documentation

The Help Documentation link opens a new window to display the Central Monitoring Console (CMon) User Manual in a web browser.

A download link is provided on the bottom of each page to download a PDF version.

You can also send us feedback by clicking the email link on the bottom.

About

The About page displays product version information about CMon for logged in users.

About



NovaBACKUP CMon

Product Version: 20.99.0.0

Last Modified Date: 8/10/2023 9:50:25 PM

Database Schema Version: 20.1.808.0

Client Browser:Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/115.0.0.0

Safari/537.36

Logged in users in a role with "View Settings" permission can also manually check for product updates on this page.

Q Check For Updates

CMon can be configured to automatically check for product updates in the Update Settings page.

If an update is available, a notification is displayed on all pages, except the About page, for logged in users in a role with "View Settings" permission.



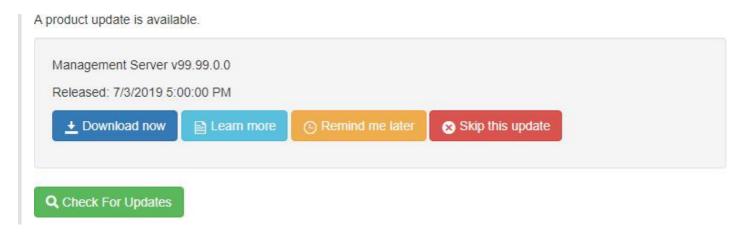
The product update notification contains a "More Information" button, which redirects them to the About page.

If a product update is available, the About page will display information about the new version:

- The new version number.
- The released date of the new version.
- Links to "Download now" and "Learn more" if available.
- The last time a check for updates was performed.
- A "Remind me later" button which will snooze the product update notification for 24 hours.

- The next time the product update notification will appear if the "Remind me later" button was clicked.
- A "Skip this update" button which will dismiss/skip the product update notification, specifically for the new version.

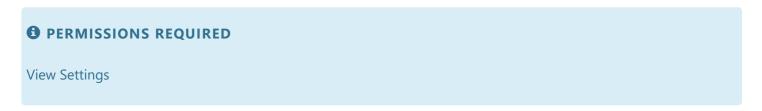
If the "Skip this update" button was clicked and a version is available that's newer than the version that was previous skipped, then the product update notification will re-appear.



If no updates are available, the About page displays the message, "The latest version is already installed".

If there's more than one update available, the About page will only display the latest version.

If the "Skip this update" button was clicked, and then the "Remind me later" button is clicked, the product update notification will re-appear after 24 hours.



Known Issues

- Retention and Import jobs are not monitored/reported
- When using CMon over HTTP, usernames and passwords are sent in plain text
- It is recommended to use SSL/HTTPS for security reasons.
- Some inputs are not validated for maximum lengths.

Troubleshooting Tips

The Management Service may not be started.

The Management Service must be started to be accessible. Run the Services control panel and start the "Management Service" windows service. If it fails to start, see Windows Service Logging for troubleshooting.

The Web Server may not be started.

The Web Server must be started to be accessible. Depending on which web server hosts the console application, run the Services control panel and start the appropriate windows service:

- If using the standalone web server, start the "Management Web Server" windows service. If it fails to start, see Standalone Web Server Logging for troubleshooting.
- If using Internet Information Services (IIS), start the "World Wide Web Publishing Service" windows service.

A firewall may be blocking one or more required ports.

If the Management Service is behind a firewall, make sure its configured port is open. The port number was specified during installation and saved in the "Management Server" windows service "system.serviceModel.services.config" configuration file. You can launch the Server Administration utility to quickly view and optionally edit the port number. The Management Service uses the TCP protocol.

If the web server is behind a firewall, make sure its configured port is open. The port number may have been specified during installation and saved in the main "Management Web Server" windows service configuration file if the standalone web server was selected.

The Management Service address may be incorrect.

The Management Service address must be configured correctly to be accessible. The server address was specified during installation and saved in the "Management Server" windows service "system.serviceModel.services.config" configuration file. You can launch the Server Administration utility to quickly view and optionally edit the server address.

Log Files

The best way to determine the underlying cause of issues is to analyze the logs.

The application configuration files contain settings that may need to be modified in order to enable logging.

These application configuration files can be edited in a simple text editor (ex. notepad).

After you are done troubleshooting, remember to revert your changes.

Windows Service Logging

Standalone Web Server Logging

Web Site Logging

Scheduled Task Logging

Windows Service Logging

Windows Service Configuration File

The "Management Server" windows service configuration file with a default installation is located here: "C:\Program Files\NovaStor\NovaBACKUP Central Management Console\Service\ManagementServer.Service.WindowsServiceHost.exe.config"

When this file is modified, the internal services will automatically restart and use the latest changes.

If the configuration file contains errors, the windows service will not start.

If the windows service is already started, it will automatically stop.

Log File Location

With a default installation, the log files are located here: "C:\Program Files\NovaStor\NovaBACKUP Central Management Console\Service\Logs"

How to enable logging for the "Management Server" windows service

Open the main "Management Server" windows service configuration file, unless otherwise specified, perform the steps outlined below, and then save the file. This generates a fairly large amount of trace data in the Logs directory.

Enable Log Listeners

Enable logging to the Application Event Log and a Flat File.

Change this: XML

to: XML

```
<configuration>
...
<loggingConfiguration ...>
2
```

Errors will now be logged in the trace.log file in the Logs directory by default.

Enable WCF Verbose Activity Tracing

For communication issues bet, Set the switchValue attributes to Verbose, ActivityTracing.

Change this: XML

to: XML

Errors will now be logged in app_tracelog.svclog and app_messages.svclog files in the Logs directory by default.

Enable Message Logging

Open "system.serviceModel.diagnostics.config" and enable logMessagesAtServiceLevel, logMalformedMessages, and logMessagesAtTransportLevel.

Change this: XML

to: XML

Enable Message Logging with Personally Identifiable Information

For example, this logs the remote IP address of clients connecting to the service.

Open "C:\Windows\Microsoft.NET\Framework\v4.0.30319\Config\machine.config" and set enableLoggingKnownPii.

Change this: XML

```
<configuration>
...
<system.serviceModel>
...
<machineSettings enableLoggingKnownPii="false" />
...
```

to: XML

```
<configuration>
...
<system.serviceModel>
...
<machineSettings enableLoggingKnownPii="true" />
...
```

Open "system.serviceModel.diagnostics.config" and enable logMessagesAtServiceLevel, logMalformedMessages, logMessagesAtTransportLevel, logEntireMessage, and logKnwonPii.

Change this: XML

```
<configuration>
...
```

to: XML

Standalone Web Server Logging

Standalone Web Server Configuration File

The "Management Web Server" windows service configuration file with a default installation is located here: "C:\Program Files\NovaStor\NovaBACKUP Central Management Console\Web\bin\ManagementServer.WebServer.WindowsServiceHost.exe.config"

Log File Location

With a default installation, the log files are located here: "C:\Program Files\NovaStor\NovaBACKUP Central Management Console\WebRoot\Web"

How to enable logging for the "Management Web Server" windows service

Open the "Management Web Server" windows service configuration file, perform the step outlined below, and then save the file. This generates a web.log file in "C:\Program Files\NovaStor\NovaBACKUP Central Management Console\WebRoot\Web" for example.

Enable Log Listeners

Enable logging to a Flat File.

Change this: XML

to: XML

```
<configuration>
...
<loggingConfiguration ...>
...
<categorySources>
...
<add name="Info" switchValue="All" >
```

Configuration Files

The "Management Server" Web Site configuration files with a default installation are located here:

"C:\Program Files\NovaStor\NovaBACKUP Central Management Console\WebRoot\Web\bin"

FILE NAME	CONTENTS	MORE TECHNICAL INFORMATION
appsettings.json	Database connection string, database command timeout, component log levels	https://docs.microsoft.com/en- us/aspnet/core/fundamentals/configuration/? view=aspnetcore-3.1#appsettingsjson
nlog.config	Logging rules and log file location	https://github.com/NLog/NLog/wiki/Configurationfile
web.config IIS hosted web application settings		https://docs.microsoft.com/en- us/aspnet/core/host-and-deploy/iis/web-config? view=aspnetcore-3.1

How to enable logging for the "Management Server" Web Site

The "Management Server" Web Site is not configured with logging enabled by default.

Edit appsettings.json and set the appropriate LogLevel for the components to log.

For example:

```
"Default": "Error"

"Microsoft": "Error"

"Microsoft.Hosting.Lifetime": "Error"

"ManagementServer": "Error"
```

Edit nlog.config and change the value of the attribute minlevel from Off to one of the following values:

Fatal	
Error	
Warn	

Info
Debug
Trace

For more technical information, see NLog configuration log levels.

Log Files Location

With a default installation, the log files are located here: "C:\Program Files\NovaStor\NovaBACKUP Central Management Console\WebRoot\Web\bin\Logs"

Scheduled Task Logging

Scheduled Task Configuration File

The "NovaBACKUPManagementServer" Scheduled Task configuration file with a default installation is located here: "C:\Program Files\NovaStor\NovaBACKUP Central Management Console\ScheduledTask\ManagementServer.Service.ScheduledTask.Console.exe.config"

Log File Location

With a default installation, the log files are located here: "C:\Program Files\NovaStor\NovaBACKUP Central Management Console\ScheduledTask\Logs"

How to enable logging for the "Management Server" Web Site

The "Management Server" Web Site configuration file is configured with logging enabled by default. This generates a trace.log file in the Logs folder.

Glossary

Cloud account

The account in the NovaBACKUP Storage Server with settings to describe how data is stored, its retention period, and capacity.

Cloud device

A component in the backup client which represents the connection to the cloud account in the NovaBACKUP Storage Server.

The cloud device also contains settings to describe how data is transmitted between the backup client and server.

When performing a backup, the cloud device can be used as the destination to store data on the server.

When performing a restore, the cloud device can be used as the source to retrieve data from the server.

Cloud storage account

A component in the CMon which ties a cloud account with a CMon user account, and optionally a backup client license key.