



# NovaBACKUP® CMon v19.4

## User Manual

The screenshot displays the NovaBACKUP CMon Dashboard. The top navigation bar includes links for Dashboard, Agents and Groups, Jobs, Notifications, Cloud Storage Accounts, Settings, and Help. The main content area is divided into two primary sections: Agents and Job History.

**Agents Section:** This section shows a list of agents with their connection status, last backup date, status, size, and duration. A green progress indicator is visible on the left.

| Name   | Connected | Last Backup Date      | Last Backup Status | Last Backup Size | Last Backup Duration |
|--------|-----------|-----------------------|--------------------|------------------|----------------------|
| Kevin  | ●         | 4/23/2019 10:54:26 PM | ●                  |                  |                      |
| Robert | ●         | 4/23/2019 4:24:26 PM  | ●                  | 1.46 GB          | 1 hour               |
| Jeff   | ●         | 4/23/2019 11:24:26 AM | ●                  | 2.18 GB          | 1 hour               |
| David  | ●         | 4/23/2019 11:24:26 AM | ●                  | 9.14 GB          | 1 hour               |
| Ruth   | ●         | 4/23/2019 10:24:26 AM | ●                  | 879.73 MB        | 1 hour               |
| Nancy  | ●         | 4/23/2019 9:24:26 AM  | ●                  | 3.18 GB          | 1 hour               |

**Job History Section:** This section provides a detailed view of backup jobs, including group, agent, job type, start/end times, status, size, files, and duration. A summary of backup statistics is shown on the right.

| Group           | Agent  | Job   | Type   | Started               | Ended                 | Status | Size      | Files | Duration |
|-----------------|--------|-------|--------|-----------------------|-----------------------|--------|-----------|-------|----------|
| Marketing       | Kevin  | Daily | Backup | 4/23/2019 10:54:26 PM |                       | ●      |           |       |          |
| Engineering     | Robert | Daily | Backup | 4/23/2019 4:24:26 PM  | 4/23/2019 6:24:26 PM  | ●      | 1.46 GB   |       | 1 hour   |
| Sales           | Jeff   | Daily | Backup | 4/23/2019 11:24:26 AM | 4/23/2019 12:24:26 PM | ●      | 2.18 GB   |       | 1 hour   |
| Sales           | David  | Daily | Backup | 4/23/2019 11:24:26 AM | 4/23/2019 12:24:26 PM | ●      | 9.14 GB   |       | 1 hour   |
| Accounting      | Ruth   | Daily | Backup | 4/23/2019 10:24:26 AM | 4/23/2019 11:24:26 AM | ●      | 879.73 MB |       | 1 hour   |
| Human Resources | Nancy  | Daily | Backup | 4/23/2019 9:24:26 AM  | 4/23/2019 10:24:26 AM | ●      | 3.18 GB   |       | 1 hour   |

**Backup Statistics:**

- Backup 0: Total 0
- Status: 1
- Completed: 4
- Failed: 1
- Total: 5

**Job History Detail Table:**

| Group           | Agent | Job   | Type   | Started               | Ended                 | Status | Size      | Files | Duration |
|-----------------|-------|-------|--------|-----------------------|-----------------------|--------|-----------|-------|----------|
| Sales           | Jeff  | Daily | Backup | 4/23/2019 11:24:26 AM | 4/23/2019 12:24:26 PM | ●      | 2.18 GB   |       | 1 hour   |
| Sales           | David | Daily | Backup | 4/23/2019 11:24:26 AM | 4/23/2019 12:24:26 PM | ●      | 9.14 GB   |       | 1 hour   |
| Accounting      | Ruth  | Daily | Backup | 4/23/2019 10:24:26 AM | 4/23/2019 11:24:26 AM | ●      | 879.73 MB |       | 1 hour   |
| Human Resources | Nancy | Daily | Backup | 4/23/2019 9:24:26 AM  | 4/23/2019 10:24:26 AM | ●      | 3.18 GB   |       | 1 hour   |

Features and specifications are subject to change without notice.  
The information provided herein is provided for informational and planning purposes only.

# Table of Contents

- Introduction
- System Requirements
- Installation
- Setting up the backup client
- Logging In
- The Dashboard
- Agents & Groups
- Log Viewer
- Notification Triggers
- Account Management
  - Set Password
  - Password
  - Time Zone
  - Language
- Cloud Storage Accounts
  - Create an account
  - Connect to an account
  - View details of an account
  - View computers
  - Edit cloud storage account
  - Change the password
  - Change the license key
  - Delete an account
  - Delete a computer
- Settings
  - Agent Settings
  - Security Settings
  - Notification Settings
- Users
  - User registration
  - Create a user
  - View a user
  - Edit a user

[Delete a user](#)

[User Registration](#)

[Roles](#)

[Storage Servers](#)

[Add a storage server](#)

[Groups](#)

[Update](#)

[Server Administration Desktop Application](#)

[Web Configuration File](#)

[Help](#)

[Documentation](#)

[About](#)

[Known Issues](#)

[Troubleshooting Tips](#)

# 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 2019
- Microsoft Windows Server 2016
- Microsoft Windows Server 2012 R2
- Microsoft Windows Server 2012
- Microsoft Windows Server 2008 R2 SP1
- Microsoft Windows Server 2008 SP2

## Microsoft .NET Framework

Microsoft .NET Framework 4.6 or higher

## SQL Server (Optional)

Microsoft SQL Server is recommended when using more than 5 backup agents.

- Microsoft SQL Server 2017
  - [Download Microsoft SQL Server 2017 Express](#)
- Microsoft SQL Server 2016
  - [Download Microsoft SQL Server 2016 SP2 Express](#)
- Microsoft SQL Server 2014
  - [Download Microsoft SQL Server 2014 SP2 Express](#)
- Microsoft SQL Server 2012
- Microsoft SQL Server 2008 R2

[How to determine the version, edition, and update level of SQL Server and its components](#)

## Web Server (Optional)

IIS with IIS 6 compatibility

## 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

The first step is the successful installation of the CMon. This is where all of the agents will check into and allow you to centrally monitor your backups across multiple machines through a web browser. The CMon needs to be installed onto a Windows Server 2008 R2 or 2012 machine that all of the other machines on which you install agents can talk to. Please check the System Requirements for the NovaBACKUP® CMon for the machine requirements for installation of the software.

The agents themselves connect to the CMon through port 4502 by default, though this is configurable. The built-in web server will use port 80, allowing you to connect to the web page and monitor your backups. This may also be configured at the time of CMon installation.

The default choices for the installation of the CMon should be sufficient for most environments and you are advised to utilize the default choices.

If you have more than 5 backup agents, it's recommended to use Microsoft SQL Server. If you do not already have IIS installed on the machine which the CMon will be installed - the built-in web server will work great.

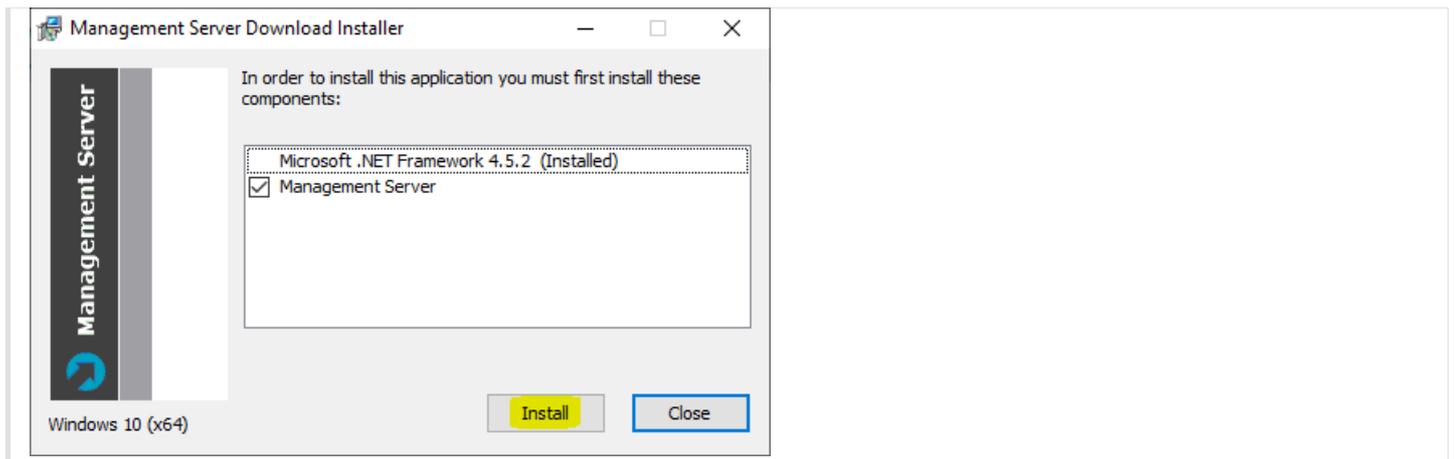
For more detailed steps through the installation of the CMon please consult the section on CMon Installation coming up next in this User Manual.

Things to note for the installation of the CMon:

- Make sure the incoming and outgoing firewall default ports 80 and 4502 are correctly configured to allow for proper communication.
- During the installation of the CMon you will be asked for the Public Server Address of the management server (CMon). This needs to be an address or URL where all of the agents can reach the CMon.
- Before connecting agents to the CMon make sure you can login to it. There will be a shortcut in your Start Menu that opens a web page with the CMon login. The default login user is "admin" and the default password is "admin"

To **install CMon**, run the setup executable to begin the installer wizard, the installer will let you know what things you are missing for the prerequisites to install the software.

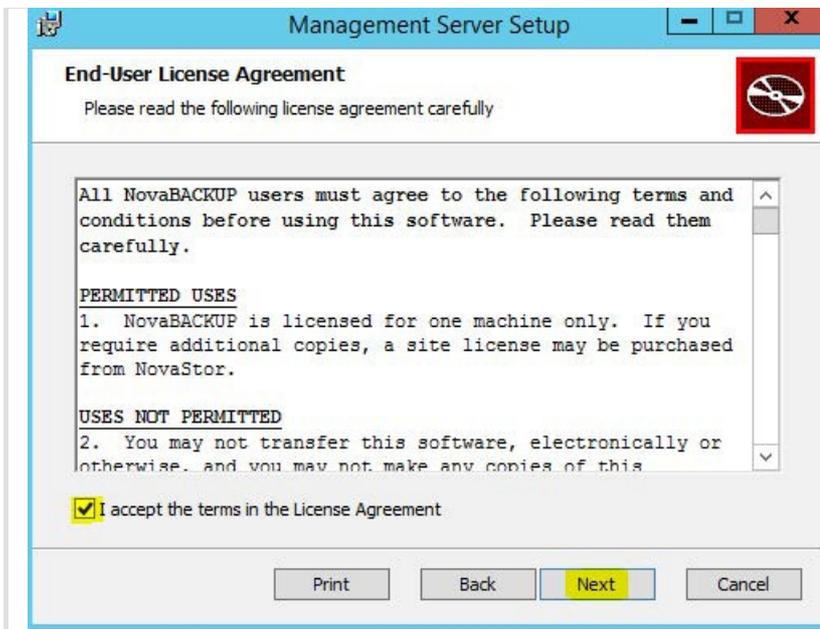
Upon running the installer, the following screen is displayed to ensure all prerequisite components are installed.



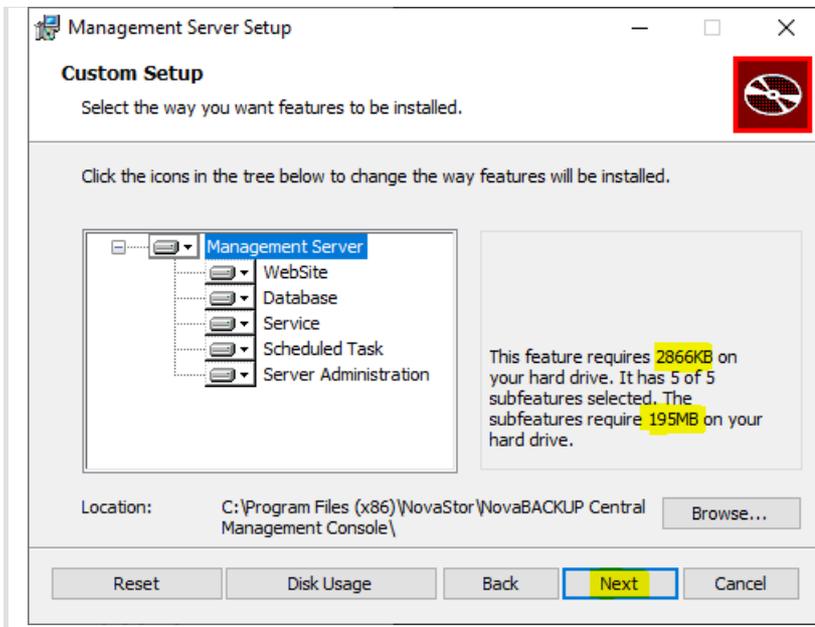
After you have all the prerequisites installed, click on Install and the following screen will be displayed:



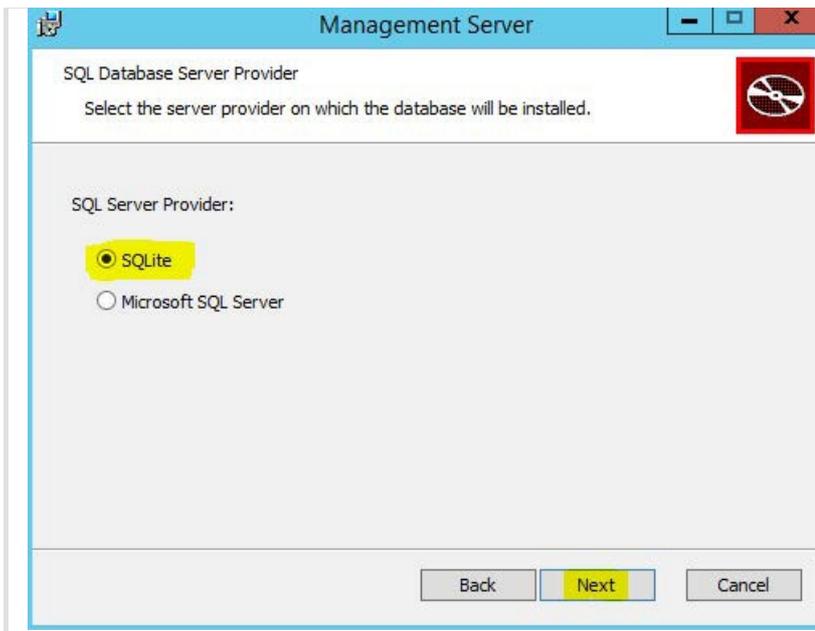
Clicking next on this screen will present you with the End-User License Agreement screen which needs to be accepted before continuing.



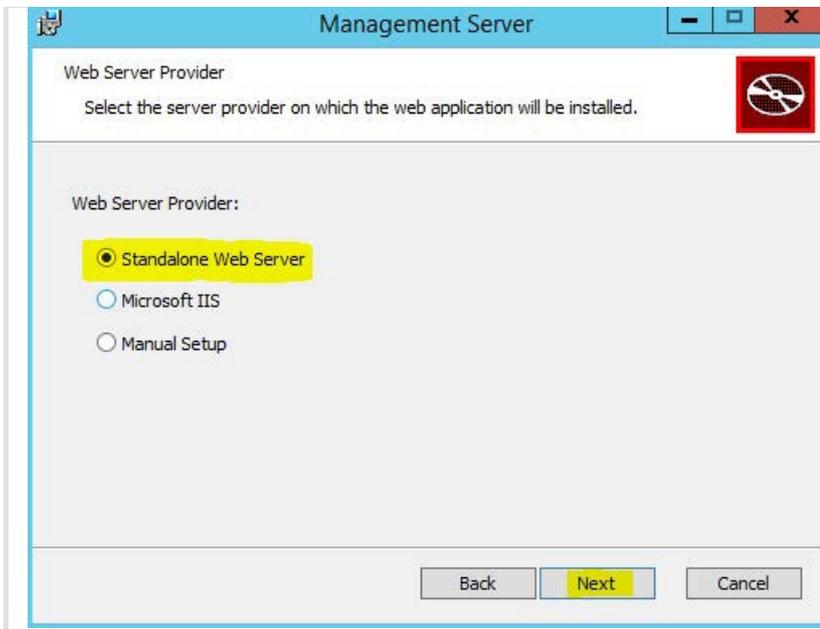
After accepting the EULA the next screen shows what features will be installed, it is recommended to keep everything with the defaults here unless there is a specific reason you need to change them.



The following screen allows you to choose whether or not you are going to use the **built in SQLite** database or utilize a Microsoft SQL Server. If you have more than 5 backup agents, it's recommended to use Microsoft SQL Server for better performance and improved experience.

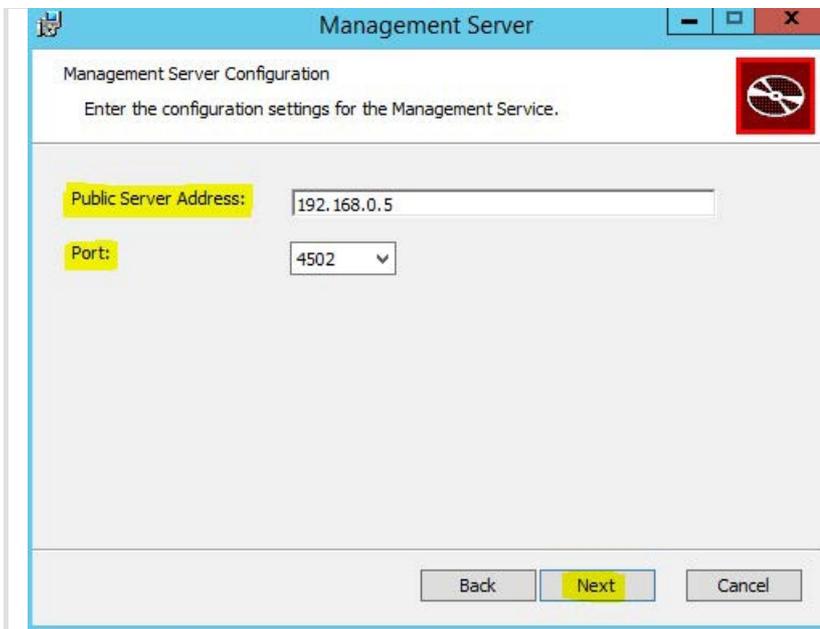


Assuming you choose the SQLite database the next screen you will see is the screen that will ask you where you want to host the web application. If you do not already have IIS installed on your machine, we have found in testing that the standalone web server works very well. If you have IIS installed it is recommended that you use it, otherwise you will have a conflict of open ports.

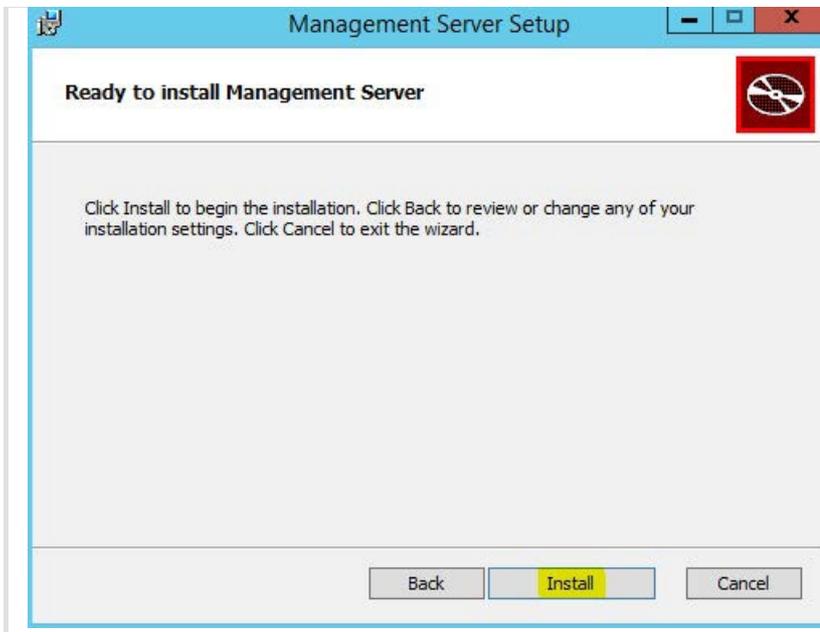


After choosing where you want the web application installed to it is time to configure the web application. The Public Server Address dialog box shown in this screen is the IP, DNS name, or computer name that the NovaBACKUP agents are going to be communicating with. The Port dropdown box contains the available ports that the NovaBACKUP agents can communicate to the CMon on.

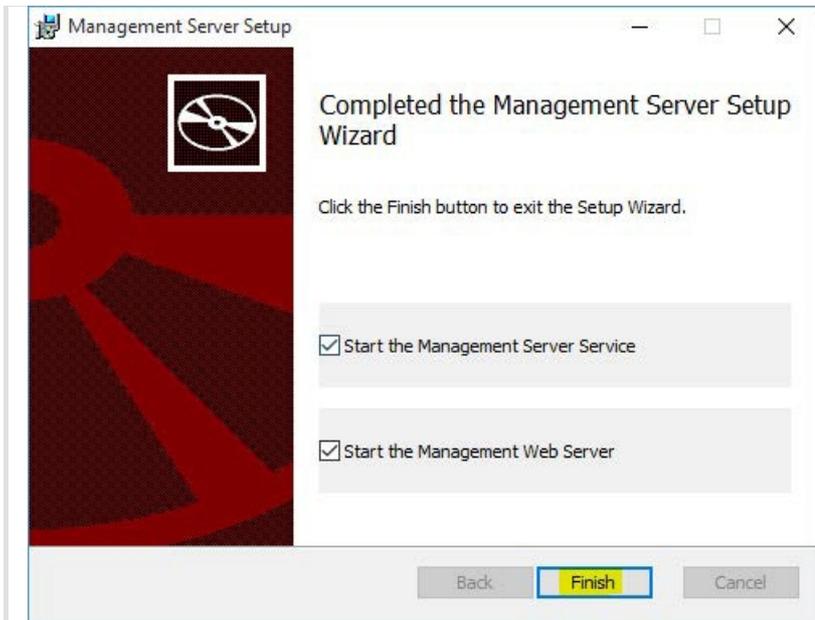
The computer that hosts CMon needs to have the port that you choose open on it so the NovaBACKUP agents can communicate with the CMC. The agents themselves do not need to open any incoming ports, but they have to be configured to use the correct port. All agent communication is initiated from the agent so no incoming communication from the CMC is initiate so there should not be much to deal with firewalls on the NovaBACKUP agents.



At this point all the information needed to install CMon has been gathered and the installer is ready to start installing it.



When the installer completes you will see the following screen which starts the required Services. Click "Finish" to complete the installation. If any other CMon installation related screens are still open at this point you can close them.

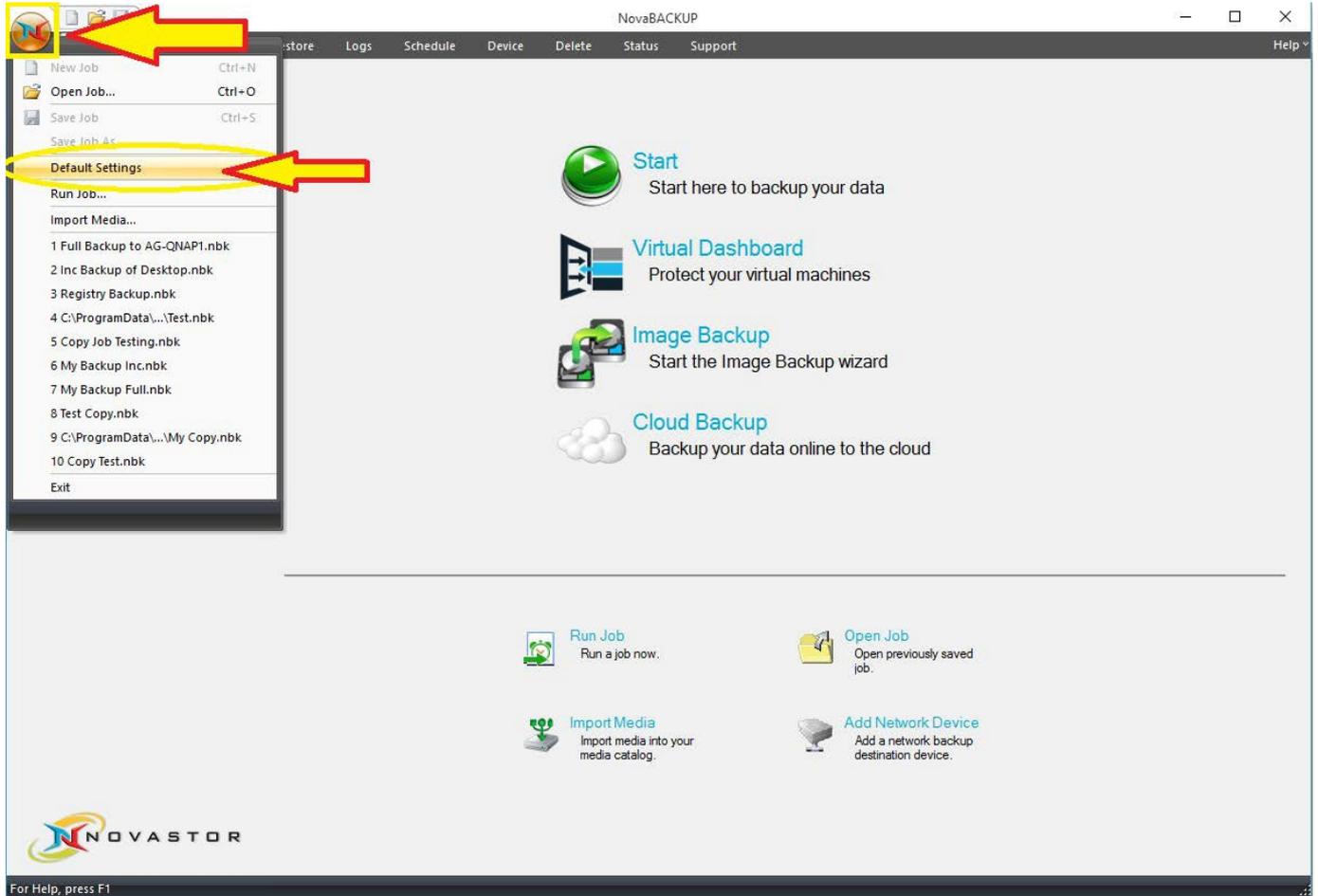


# Setting up the backup client

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.

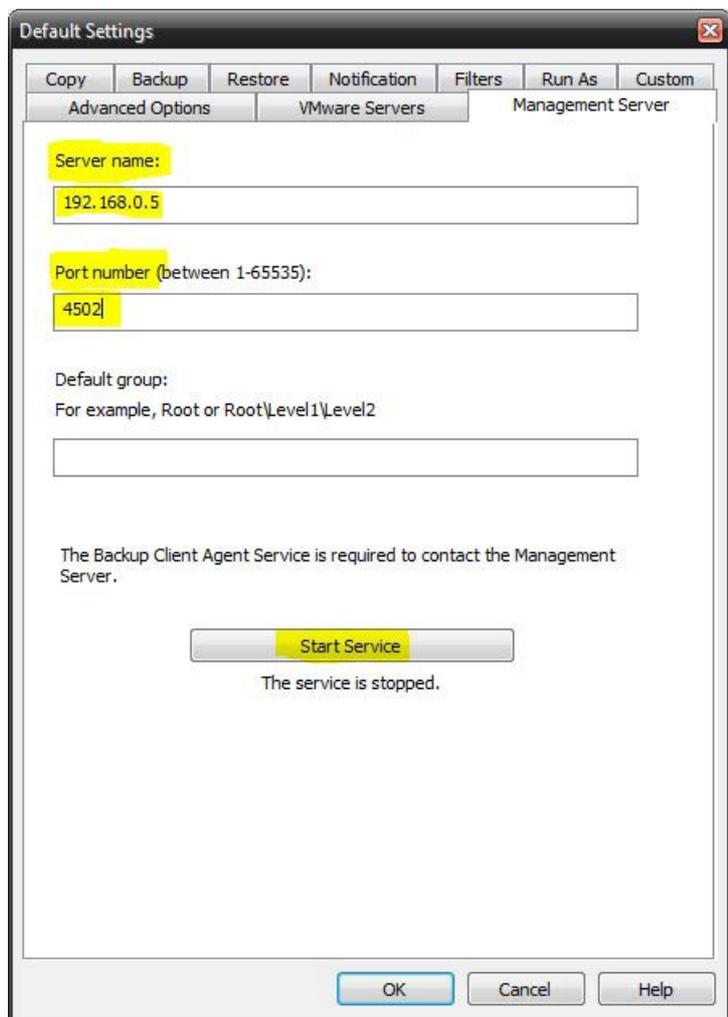
1. The first thing you need to do is install a backup client (NovaBACKUP® PC, Server, or Business Essentials) on the machine you'd like to back up. For instructions on how to do this please consult the NovaBACKUP® Quick Install Guide. By accepting all default options during installation, all necessary 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



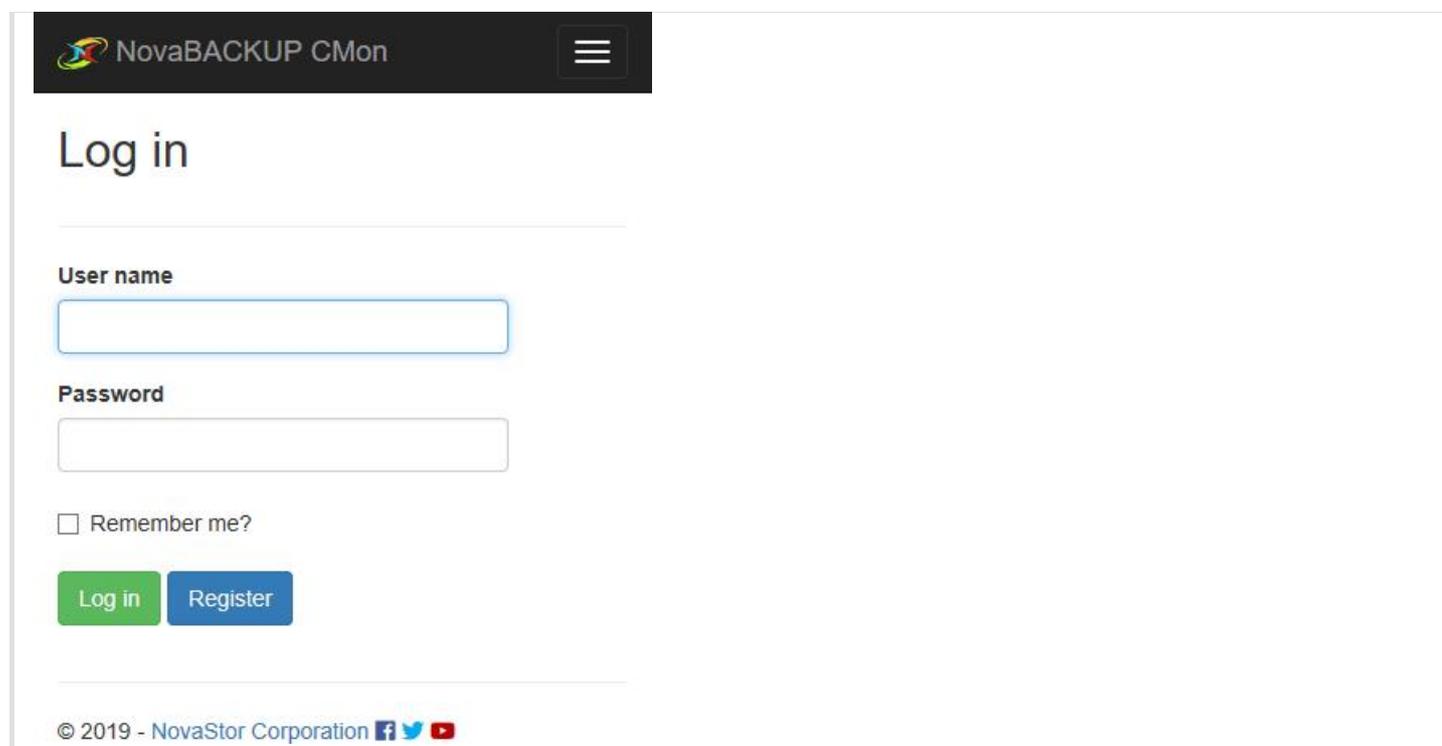
will be placed in the "Pending" group in CMon. >

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 screenshot shows the login interface for NovaBACKUP CMon. It features a dark header with the logo and a hamburger menu icon. The main content area is titled 'Log in' and contains a 'User name' field, a 'Password' field, and a 'Remember me?' checkbox. Below these fields are 'Log in' and 'Register' buttons. The footer includes the copyright notice '© 2019 - NovaStor Corporation' and social media icons.

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 screenshot displays the NovaBACKUP CMon Dashboard. At the top, a navigation menu includes 'Dashboard', 'Agents and Groups', 'Jobs', 'Notifications', 'Cloud Storage Accounts', 'Settings', and 'Help'. The user is logged in as 'admin'. The main content is divided into two sections: 'Agents' and 'Job History'.

**Agents Section:** A summary graphic shows 6 Connected agents and 0 Disconnected agents. Below is a table with columns: Name, Connected, Last Backup Date, Last Backup Status, Last Backup Size, Last Backup Duration, and a View button.

| Name   | Connected | Last Backup Date      | Last Backup Status | Last Backup Size | Last Backup Duration |      |
|--------|-----------|-----------------------|--------------------|------------------|----------------------|------|
| Kevin  | ●         | 4/23/2019 10:54:26 PM | ●                  |                  |                      | View |
| Robert | ●         | 4/23/2019 4:24:26 PM  | ●                  | 1.46 GB          | 1 hour               | View |
| Jeff   | ●         | 4/23/2019 11:24:26 AM | ●                  | 2.18 GB          | 1 hour               | View |
| David  | ●         | 4/23/2019 11:24:26 AM | ●                  | 9.14 GB          | 1 hour               | View |
| Ruth   | ●         | 4/23/2019 10:24:26 AM | ●                  | 879.73 MB        | 1 hour               | View |
| Nancy  | ●         | 4/23/2019 9:24:26 AM  | ●                  | 3.18 GB          | 1 hour               | View |

**Job History Section:** A summary graphic shows 6 Backup jobs. Below is a table with columns: Group, Agent, Job, Type, Started, Ended, Status, Size, Files, Duration, and a View button.

| Group           | Agent  | Job   | Type   | Started               | Ended                 | Status | Size                 | Files | Duration |      |  |
|-----------------|--------|-------|--------|-----------------------|-----------------------|--------|----------------------|-------|----------|------|--|
| Marketing       | Kevin  | Daily | Backup | 4/23/2019 10:54:26 PM |                       | ●      |                      |       |          | View |  |
| Engineering     | Robert | Daily | Backup | 4/23/2019 4:24:26 PM  | 4/23/2019 6:24:26 PM  | ●      | 1.46 GB              |       | 1 hour   | View |  |
| Sales           | Jeff   | Daily | Backup | 4/23/2019 11:24:26 AM | 4/23/2019 12:24:26 PM | ●      | 2.18 GB              |       | 1 hour   | View |  |
| Sales           | David  | Daily | Backup | 4/23/2019 11:24:26 AM | 4/23/2019 12:24:26 PM | ●      | 9.14 GB              |       | 1 hour   | View |  |
| Accounting      | Ruth   | Daily | Backup | 4/23/2019 10:24:26 AM | 4/23/2019 11:24:26 AM | ●      | 879.73 MB            |       | 1 hour   | View |  |
| Human Resources | Nancy  | Daily | Backup | 4/23/2019 9:24:26 AM  | 4/23/2019 10:24:26 AM | ●      | 3.18 GB              |       | 1 hour   | View |  |
|                 |        |       |        |                       |                       |        | <b>Sum: 16.82 GB</b> |       |          |      |  |

Additional summary graphics on the right show: Backup: 6 (Total: 6) and a status pie chart with 1 Started, 4 Completed, and 1 Failed jobs.

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.

# Agents & Groups

**Agents & 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.

Agents and Groups

+ Add new group

| Name            | Description                     | Connected | Last Activity Date    | Last Backup Date      | Last Backup Status | Last Backup Size | Last Backup Number of Files | Last Backup Duration | xSP Username | Last Note | Version     |      |
|-----------------|---------------------------------|-----------|-----------------------|-----------------------|--------------------|------------------|-----------------------------|----------------------|--------------|-----------|-------------|------|
| Example         |                                 |           |                       |                       |                    |                  |                             |                      |              |           |             | View |
| Accounting      |                                 |           |                       |                       |                    |                  |                             |                      |              |           |             | View |
| Ruth            |                                 | ●         | 4/23/2019 11:24:26 PM | 4/23/2019 10:24:26 AM | ●                  | 879.73 MB        |                             | 1 hour               |              |           | 19.0.1124.1 | View |
| Human Resources |                                 |           |                       |                       |                    |                  |                             |                      |              |           |             | View |
| Nancy           |                                 | ●         | 4/23/2019 11:24:25 PM | 4/23/2019 9:24:26 AM  | ●                  | 3.18 GB          |                             | 1 hour               |              |           | 19.0.1124.1 | View |
| IT              |                                 |           |                       |                       |                    |                  |                             |                      |              |           |             | View |
| Engineering     |                                 |           |                       |                       |                    |                  |                             |                      |              |           |             | View |
| Robert          |                                 | ●         | 4/23/2019 11:24:25 PM | 4/23/2019 4:24:26 PM  | ●                  | 1.46 GB          |                             | 1 hour               |              |           | 19.1.1406.1 | View |
| Marketing       |                                 |           |                       |                       |                    |                  |                             |                      |              |           |             | View |
| Kevin           |                                 | ●         | 4/23/2019 11:24:24 PM | 4/23/2019 10:54:26 PM | ●                  |                  |                             |                      |              |           | 19.0.1124.1 | View |
| Sales           |                                 |           |                       |                       |                    |                  |                             |                      |              |           |             | View |
| David           |                                 | ●         | 4/23/2019 11:24:23 PM | 4/23/2019 11:24:26 AM | ●                  | 9.14 GB          |                             | 1 hour               |              |           | 19.0.1124.1 | View |
| Jeff            |                                 | ●         | 4/23/2019 11:24:24 PM | 4/23/2019 11:24:26 AM | ●                  | 2.18 GB          |                             | 1 hour               |              |           | 19.0.1124.1 | View |
| Pending         | Machines not assigned to groups |           |                       |                       |                    |                  |                             |                      |              |           |             | View |

Page 1 of 1 10 items per page 1 - 2 of 2 items

**Agents & Groups - Add new group** function example:

Adding a Group is performed by clicking the " **Add new group** " button as seen in this example.

## Create Group

Group Users Notes

**Name**  
Customer Support

**Description**  
The customer support department X

**Parent**  
IT

Save

# 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.

## Backup - My Backup

Start 4/23/2019 6:24:26 PM - End 4/23/2019 7:24:26 PM (01:00:00) Successful

|                   |                       |                 |            |
|-------------------|-----------------------|-----------------|------------|
| Backup Location   | C:\backup             | Files Completed | 65 (9 GB)  |
| Files Selected    | 65 (9 GB)             | Write Mode      | Overwrite  |
| Application       | NovaBACKUP v19.0.1124 | Media Name      | Media Name |
| Backup Open Files | On                    | Encryption      | Off        |
| Compression       | On                    |                 |            |
| Backup Type       | Full                  |                 |            |

### Messages

| Type                     | Message | Timestamp |
|--------------------------|---------|-----------|
| No messages were logged. |         |           |

0 0 of 0 items per page No items to display

Delete

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

This second example is a job with Failed status.

## Backup - My Backup

Start 4/23/2019 6:24:26 PM - End 4/23/2019 7:24:26 PM (01:00:00) Failed

|                   |                       |                 |            |
|-------------------|-----------------------|-----------------|------------|
| Backup Location   | C:\backup             | Files Completed | 65 (2 GB)  |
| Files Selected    | 65 (2 GB)             | Write Mode      | Overwrite  |
| Application       | NovaBACKUP v19.0.1124 | Media Name      | Media Name |
| Backup Open Files | On                    | Encryption      | Off        |
| Compression       | On                    |                 |            |
| Backup Type       | Full                  |                 |            |

### Messages

| Type  | Message                                  | Timestamp             |
|-------|--|-----------------------|
| Error | Error e0020038: The license has expired. | 12/31/1969 4:02:03 PM |

1 1 of 1 items per page 1 - 1 of 1 items

Delete

# 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.

| Notification Triggers  |   |   |                       |   |
|--|---|---|-----------------------|---|
| + Add Trigger  |   |   |                       |   |
| Groups   | Agents                                  | Job Statuses                                  | Last Checked          |   |
| Pending, Example, Accounting, Human Resources, IT, Engineering, Marketing, Sales, Customer Support | David, Jeff, Kevin, Nancy, Robert, Ruth | Started, Successful, Failed, Stopped, Warning | 4/23/2019 11:26:12 PM | <a href="#">View</a> <a href="#">Delete</a> |
| Page 1 of 1  |   |   | 10 items per page     | 1 - 1 of 1 items                            |

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.

### Add Trigger

**Groups**

Accounting x Customer Support x Engineering x Example x  
Human Resources x IT x Marketing x Pending x Sales x

Select All Groups Deselect All Groups

**Agents**

David x Jeff x Kevin x Nancy x Robert x Ruth x

Select All Agents Deselect All Agents

**Job Status**

Failed x Started x Stopped x Successful x Warning x

Select All Job Statuses Deselect All Job Statuses

**Interval**

Immediate

**Recipients**

admin@example.com

Separate multiple email addresses with a semicolon (;)

**Subject**

\$agentName \$jobName \$jobType Job \$job:

**Enable HTML**

Send message as HTML

**Body**

**B I U abc** [List Icons] [Link] [Image] [Table] [Code]

Format (inherited font) (inherited size)

**A** [Color] [Background Color]

Notification Interval Type: \$notificationIntervalType  
Notification Time: \$notificationTime  
Notification Day of Month: \$dayOfTheMonth  
Notification Day of Week: \$dayOfTheWeek  
Agent Name: \$agentName  
Group Name: \$groupName  
Job Name: \$jobName  
Job Status: \$jobStatus  
Job Type: \$jobType  
Job Started: \$startDateTime

**+ Add** **Cancel**

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<br>Weekly<br>Monthly<br>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<br>Successful<br>Failed<br>Stopped<br>Warning  |
| \$jobType                   | The type of the job.  | Backup<br>Restore<br>Copy<br>Import<br>Image Backup<br>Virtual Machine File Level Backup<br>Virtual Machine Replication Backup<br>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  |

Example:

Edit Trigger



Groups

Pending x Example x Accounting x Human Resources x IT x Engineering x  
Marketing x Sales x Customer Support x

Select All Groups Deselect All Groups

Agents

David x Jeff x Kevin x Nancy x Robert x Ruth x

Select All Agents Deselect All Agents

Job Status

Started x Successful x Failed x Stopped x Warning x

Select All Job Statuses Deselect All Job Statuses

Interval

Immediate

Recipients

admin@example.com

Separate multiple email addresses with a semicolon (;)

Subject

\$agentName \$jobName \$jobType Job \$job:

Enable HTML

Send message as HTML

Body

**B** *I* U abc  $x_2$   $x^2$  `</>`

Format (inherited font) (inherited size)

A

```
Notification Interval Type: $notificationIntervalType
Notification Time: $notificationTime
Notification Day of Month: $dayOfTheMonth
Notification Day of Week: $dayOfTheWeek
Agent Name: $agentName
Group Name: $groupName
Job Name: $jobName
Job Status: $jobStatus
Job Type: $jobType
Job Started: $startDateTime
```

✓ Update ⌛ Cancel

# 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](#)

# 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.

## Set password

Set your password.

---

|                         |  |
|-------------------------|--|
| <b>User name</b>        | <input type="text" value="michael@example.com"/> |
| <b>Password</b>         | <input type="password"/>                         |
| <b>Confirm password</b> | <input type="password"/>                         |

Remember me?

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.

## Change Password

**Current password**

**New password**

**Confirm new password**

Change password

# Time Zone

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

## Time Zone

|                             |   |
|-----------------------------|---|
| <b>Automatic</b>            | <input checked="" type="checkbox"/> Automatically detect my time zone                             |
| <b>Country</b>              | United States  |
| <b>Time Zone</b>            | Pacific Time   |
| <b>Time Zone Identifier</b> | America/Los_Angeles   |
| <b>Current Time</b>         | 4/23/2019 11:28:32 PM   |
|                             | <input type="button" value="Save Changes"/>   |

# 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.

## Language and Culture

|                                 |   |
|---------------------------------|---|
| <b>Automatic</b>                | <input checked="" type="checkbox"/> Automatically detect my language and culture                            |
| <b>Language</b>                 | English (United States)  |
| <b>Culture</b>                  | en-US   |
| <b>Calendar</b>                 | Gregorian   |
| <b>Date Time Pattern</b>        | M/d/yyyy h:mm:ss tt   |
| <b>Curent Time</b>              | 4/23/2019 11:28:39 PM   |
| <b>Number Decimal Separator</b> | .   |
| <b>Number Group Separator</b>   | ,   |

# 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.

| Username            | Last Backup Date | Used Space | Total Storage Space | Quota Status | Quota Percent | Backup Client License Key | Expiration Date      | Days Until Expiration |
|---------------------|------------------|------------|---------------------|--------------|---------------|---------------------------|----------------------|-----------------------|
| michael@example.com |                  | 1 GB       | 5 GB                | Below Quota  | 20%           | license key               | 7/14/2019 8:57:30 PM | 45                    |

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

The "Free Space" column is 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.

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

The exported CSV file will contain the following columns:

| COLUMN NAME            | DESCRIPTION  |
|------------------------|--|
| GroupName              | The name of the storage server group.                          |
| Username               | The username in the storage server.                            |
| BackupClientLicenseKey | The backup client license key.                                 |
| LastBackupDate         | The date and time of the last backup in UTC.                   |
| UsedBytes              | The amount of storage space used in bytes.                     |
| 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")   |

| <b>COLUMN NAME</b>  | <b>DESCRIPTION</b>  |
|---------------------|---|
| 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") |

# 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.

## Create new cloud storage account

---

**Username**

**Password**

**Confirm Password**

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.

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

## Create new cloud storage account

---

**Username**

**Password**

**Confirm Password**

**Backup Client License Key**

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.

# 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.

# 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.

## Cloud device

---

|   |                     |
|---|---------------------|
| <b>Username</b>                           | melissa@example.com |
| <b>Status</b>                             | Active              |
| <b>Enabled</b>                            | Yes                 |
| <b>License</b>                            | Normal              |
| <b>Used space</b>                         | 0 B                 |
| <b>Free space</b>                         | 200 MB              |
| <b>Total storage space</b>                | 200 MB              |
| <b>Quota status</b>                       | Below Quota         |
| <b>Quota</b>                              | 0%                  |
| <b>Maximum number of computers</b>        | 1                   |
| <b>Group</b>                              | melissa@example.com |
| <b>Quota type</b>                         | Custom              |
| <b>Near quota</b>                         | 90%                 |
| <b>Near quota action</b>                  | Report Warning      |
| <b>At quota action</b>                    | Warning Window      |
| <b>Over quota</b>                         | 110%                |
| <b>Over quota action</b>                  | Disable Backup      |
| <b>Restore window</b>                     | 1 month             |
| <b>Allow data access using master key</b> | Yes                 |

[Refresh](#) [Connect](#) [Edit](#) [View computers](#) [Delete](#)

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

## Cloud device

---

|   |   |
|---|---|
| <b>Username</b>                           | michael@example.com   |
| <b>Backup client license key</b>          | license key  |
| <b>Expiration date</b>                    | 6/11/2019 11:22:09 PM   |
| <b>Days until expiration</b>              | 45  |
| <b>Status</b>                             | Active  |
| <b>Enabled</b>                            | Yes   |
| <b>License</b>                            | Normal  |
| <b>Used space</b>                         | 1 GB  |
| <b>Free space</b>                         | 4 GB  |
| <b>Total storage space</b>                | 5 GB  |
| <b>Quota status</b>                       | Below Quota   |
| <b>Quota</b>                              | 20%   |
| <b>Maximum number of computers</b>        | 1   |
| <b>Group</b>                              | michael@example.com   |
| <b>Quota type</b>                         | Custom  |
| <b>Near quota</b>                         | 90%   |
| <b>Near quota action</b>                  | Report Warning  |
| <b>At quota action</b>                    | Warning Window  |
| <b>Over quota</b>                         | 110%  |
| <b>Over quota action</b>                  | Disable Backup  |
| <b>Restore window</b>                     | 1 month   |
| <b>Allow data access using master key</b> | Yes   |

[Refresh](#) [Connect](#) [Edit](#) [View computers](#) [Delete](#)

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

## Cloud device

|  |                     |
|--|---------------------|
| <b>Username</b>                            | melissa@example.com |
| <b>Status</b>                              | Active              |
| <b>Enabled</b>                             | Yes                 |
| <b>License</b>                             | Normal              |
| <b>Used space</b>                          | 0 B                 |
| <b>Free space</b>                          | 200 MB              |
| <b>Total storage space</b>                 | 200 MB              |
| <b>Quota status</b>                        | Below Quota         |
| <b>Quota</b>                               | 0%                  |
| <b>Maximum number of computers</b>         | 1                   |
| <b>Group</b>                               | melissa@example.com |
| <b>Quota type</b>                          | Custom              |
| <b>Near quota</b>                          | 90%                 |
| <b>Near quota action</b>                   | Report Warning      |
| <b>At quota action</b>                     | Warning Window      |
| <b>Over quota</b>                          | 110%                |
| <b>Over quota action</b>                   | Disable Backup      |
| <b>Restore window</b>                      | 1 month             |
| <b>Allow data access using master key</b>  | Yes                 |
| <b>Primary storage</b>                     | C:\UserData         |
| <b>Restrict backups to primary storage</b> | Yes                 |
| <b>User data directory name</b>            | melissa@example.com |

 Refresh

 Connect

 Edit

 View computers

 Delete

# 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.

### Cloud Storage Account Computers

| Computer Name  | Created               | Modified              |  |
|----------------|-----------------------|-----------------------|--|
| WINDOWS-PC     | 4/23/2019 11:29:54 PM | 4/23/2019 11:29:54 PM |  Delete |
| WINDOWS-LAPTOP | 4/23/2019 11:29:55 PM | 4/23/2019 11:29:55 PM |  Delete |

Navigation:   0 Page 0 of 0   10 items per page

Footer: No items to display 

# 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.

### Edit cloud storage account

|                              |  |
|------------------------------|--|
| <b>Username</b>              | michael@example.com  |
| <b>License Key</b>           | license key   |
| <b>Status</b>                | Active   |
| <b>Enabled</b>               | Yes  |
| <b>License</b>               | Normal   |
| <b>Number of computers</b>   | 1  |
| <b>Group</b>                 | michael@example.com  |
| <b>Restore window length</b> | <input type="text" value="1"/>   |
| <b>Restore window type</b>   | <input type="text" value="Months"/>   |
| <b>Computers</b>             |  <a href="#">Manage computers</a>   |
| <b>Password</b>              |  <a href="#">Change password</a>  |

[Save](#)

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

|                                 |  |
|---------------------------------|--|
| <b>Username</b>                 | michael@example.com  |
| <b>License Key</b>              | license key   |
| <b>Status</b>                   | Active   |
| <b>Enabled</b>                  | Yes  |
| <b>License</b>                  | <input type="text" value="Normal"/>  |
| <b>Number of computers</b>      | 1  |
| <b>Group</b>                    | <input type="text" value="michael@example...."/>   |
| <b>Restore window length</b>    | <input type="text" value="1"/>   |
| <b>Restore window type</b>      | <input type="text" value="Months"/>  |
|                                 | <input checked="" type="checkbox"/> <b>Allow data access using master key</b>  |
| <b>Primary storage</b>          | <input type="text" value="C:\UserData"/>   |
|                                 | <input checked="" type="checkbox"/> <b>Restrict backups to primary storage</b>   |
| <b>User data directory name</b> | <input type="text" value="michael@example.com"/>   |
| <b>Computers</b>                |  <input type="text" value="Manage computers"/>  |
| <b>Password</b>                 |  <input type="text" value="Change password"/>   |
|                                 | <input type="button" value="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

|                              |   |
|------------------------------|---|
| <b>Username</b>              | melissa@example.com                             |
| <b>Status</b>                | Active  |
| <b>Enabled</b>               | Yes   |
| <b>Number of computers</b>   | <input type="text" value="1"/>                  |
| <b>Group</b>                 | melissa@example.com                             |
| <b>Quota type</b>            | <input type="text" value="Custom"/>             |
| <b>Quota (megabytes)</b>     | <input type="text" value="200"/>                |
| <b>Near quota percent</b>    | <input type="text" value="90"/>                 |
| <b>Near quota action</b>     | <input type="text" value="Report Warning"/>     |
| <b>At quota action</b>       | <input type="text" value="Warning Window"/>     |
| <b>Over quota percent</b>    | <input type="text" value="110"/>                |
| <b>Over quota action</b>     | <input type="text" value="Disable Backup"/>     |
| <b>Restore window length</b> | <input type="text" value="1"/>                  |
| <b>Restore window type</b>   | <input type="text" value="Months"/>             |
| <b>Computers</b>             | <input type="button" value="Manage computers"/> |
| <b>Password</b>              | <input type="button" value="Change password"/>  |
|                              | <input type="button" value="Save"/>             |

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.

# Edit cloud storage account

|                                 |  |
|---------------------------------|--|
| <b>Username</b>                 | melissa@example.com  |
| <b>Status</b>                   | <input type="text" value="Active"/>  |
|                                 | <input checked="" type="checkbox"/> <b>Enabled</b>                             |
| <b>License</b>                  | <input type="text" value="Normal"/>  |
| <b>Number of computers</b>      | <input type="text" value="1"/>   |
| <b>Group</b>                    | <input type="text" value="melissa@example...."/>                               |
| <b>Quota type</b>               | <input type="text" value="Custom"/>  |
| <b>Quota (megabytes)</b>        | <input type="text" value="200"/>   |
| <b>Near quota percent</b>       | <input type="text" value="90"/>  |
| <b>Near quota action</b>        | <input type="text" value="Report Warning"/>                                    |
| <b>At quota action</b>          | <input type="text" value="Warning Window"/>                                    |
| <b>Over quota percent</b>       | <input type="text" value="110"/>   |
| <b>Over quota action</b>        | <input type="text" value="Disable Backup"/>                                    |
| <b>Restore window length</b>    | <input type="text" value="1"/>   |
| <b>Restore window type</b>      | <input type="text" value="Months"/>  |
|                                 | <input checked="" type="checkbox"/> <b>Allow data access using master key</b>  |
| <b>Primary storage</b>          | <input type="text" value="C:\UserData"/>                                       |
|                                 | <input checked="" type="checkbox"/> <b>Restrict backups to primary storage</b> |
| <b>User data directory name</b> | <input type="text" value="melissa@example.com"/>                               |
| <b>Computers</b>                | <input type="button" value="Manage computers"/>                                |
| <b>Password</b>                 | <input type="button" value="Change password"/>                                 |
|                                 | <input type="button" value="Save"/>  |

# Change the password

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

## Edit cloud storage account

|                              |  |
|------------------------------|--|
| <b>Username</b>              | michael@example.com  |
| <b>License Key</b>           | license key   |
| <b>Status</b>                | Active   |
| <b>Enabled</b>               | Yes  |
| <b>License</b>               | Normal   |
| <b>Number of computers</b>   | 1  |
| <b>Group</b>                 | michael@example.com  |
| <b>Restore window length</b> | <input type="text" value="1"/>   |
| <b>Restore window type</b>   | <input type="text" value="Months"/>   |
| <b>Computers</b>             |  Manage computers  |
| <b>Password</b>              |  Change password  |

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.

## Change cloud storage account password

|                         |  |
|-------------------------|--|
| <b>Current Password</b> | <input type="password" value="....."/>   |
| <b>New Password</b>     | <input type="password" value="....."/>   |
| <b>Confirm Password</b> | <input type="password" value="....."/>  |

# 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.

## Edit cloud storage account

|                              |  |
|------------------------------|--|
| <b>Username</b>              | michael@example.com  |
| <b>License Key</b>           | license key   |
| <b>Status</b>                | Active   |
| <b>Enabled</b>               | Yes  |
| <b>License</b>               | Normal   |
| <b>Number of computers</b>   | 1  |
| <b>Group</b>                 | michael@example.com  |
| <b>Restore window length</b> | <input type="text" value="1"/>   |
| <b>Restore window type</b>   | <input type="text" value="Months"/>    |
| <b>Computers</b>             |  Manage computers   |
| <b>Password</b>              |  Change password  |

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

|                                  |   |
|----------------------------------|---|
| <b>Username</b>                  | michael@example.com   |
| <b>Backup Client License Key</b> | <input type="text" value="new license key"/>  |

# 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?

|                                  |                     |
|----------------------------------|---------------------|
| <b>Username</b>                  | michael@example.com |
| <b>Backup Client License Key</b> | license key         |

 Delete

# 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.

## Are you sure you want to delete this computer?

**Computer Name**

WINDOWS-PC

 Delete

# Settings

[Security](#)

[Agent](#)

[Notification](#)

[Users](#)

[User Registration Settings](#)

[Roles](#)

[Storage Servers](#)

[Update](#)

# 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.

## Agent Settings

### Agent Connections

|  |    |        |
|--|----|--------|
| Agent connection timeout (minutes)       | 30 | ▲<br>▼ |
| Agent connection ping interval (minutes) | 15 | ▲<br>▼ |

### Agent Logs

Delete logs that exceed the maximum number per agent

|     |        |
|-----|--------|
| 100 | ▲<br>▼ |
|-----|--------|

Delete logs that exceed the maximum number of days

|    |        |
|----|--------|
| 60 | ▲<br>▼ |
|----|--------|

[Save Changes](#)

# Security Settings

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

Ignoring SSL certificate errors is not recommend.

## Security Settings

---

**Ignore SSL Certificate Errors**

**Save**

# 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.

## Notification Settings

### Email Server

|                       |   |
|-----------------------|---|
| Type                  | <input type="text" value="NovaBACKUP Alerts"/>    |
| Server Address        | <input type="text"/>                              |
| Server Port           | <input type="text" value="25"/>                   |
| Enable SSL            | <input type="checkbox"/>                          |
| Enable Authentication | <input type="checkbox"/>                          |
| User Name             | <input type="text"/>                              |
| Password              | <input type="password"/>                          |
| Retry Count           | <input type="text" value="5"/>                    |
| Timeout (Seconds)     | <input type="text" value="30"/>                   |
| Sender Name           | <input type="text" value="NovaBACKUP Alerts"/>    |
| Sender Email Address  | <input type="text" value="noreply@novastor.com"/> |

### Test Email Address Recipients

|    |                      |
|----|----------------------|
| To | <input type="text"/> |
|----|----------------------|

*Separate multiple email addresses with a semicolon (;).*

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.

# Notification Settings

## Email Server

|   |                                     |
|---|-------------------------------------|
| Type  | Custom SMTP                         |
| Server Address                              | smtp.example.com                    |
| Server Port                                 | 587                                 |
| Enable SSL                                  | <input checked="" type="checkbox"/> |
| Enable Authentication                       | <input checked="" type="checkbox"/> |
| User Name                                   | backup@example.com                  |
| Password                                    | ••••••••                            |
| Retry Count                                 | 5                                   |
| Timeout (Seconds)                           | 30                                  |
| Sender Name                                 | NovaBACKUP Alerts                   |
| Sender Email Address                        | backup@example.com X                |
| <input type="button" value="Save Changes"/> |                                     |

## Test Email Address Recipients

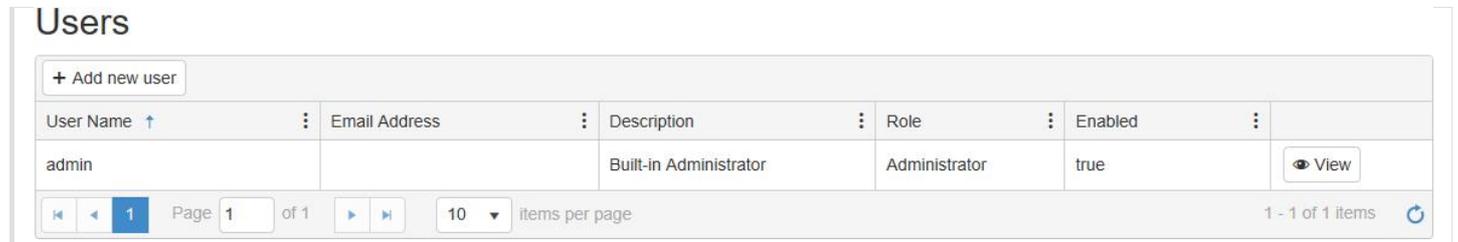
|  |                      |
|--|----------------------|
| To   | <input type="text"/> |
| <i>Separate multiple email addresses with a semicolon (;).</i> |                      |
| <input type="button" value="Send Test Email"/>                 |                      |

# Users

The "**Users**" page is where you can set up CMon to work with more than just the single built-in "admin" account. Once on the "**Users**" page you have the ability to add users by clicking on the "**Add new user**" button. Custom Roles can be created for users via the "**Role**" page.

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

The "Storage Server Group" column is hidden by default.



The screenshot shows the 'Users' management interface. At the top left, there is a '+ Add new user' button. Below it is a table with the following columns: 'User Name', 'Email Address', 'Description', 'Role', 'Enabled', and an action column. The table contains one row for the 'admin' user, with a 'View' button in the action column. At the bottom of the table, there is a pagination control showing 'Page 1 of 1', '10 items per page', and '1 - 1 of 1 items'.

| User Name ↑ | Email Address | Description            | Role          | Enabled |                      |
|-------------|---------------|------------------------|---------------|---------|----------------------|
| admin       |               | Built-in Administrator | Administrator | true    | <a href="#">View</a> |

Page 1 of 1 | 10 items per page | 1 - 1 of 1 items

# 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.

## Register

Create a new account.

---

|                         |   |
|-------------------------|---|
| <b>User name</b>        | <input type="text" value="melissa@example.com"/>  |
| <b>Email</b>            | <input type="text" value="melissa@example.com"/>  |
| <b>Password</b>         | <input type="password" value="••••••••"/>   |
| <b>Confirm password</b> | <input type="password" value="••••••••"/>  |

The username must be unique.

# Create a user

From the "Users" view, click on the "Add new user" button to create a new user.

Enter a username, password, email address, select the user's role, and click the "Next" button to continue.

The username must be unique.

If a password is not specified, then the "User must set or change password at first login" and "Send registration email" check boxes must be checked.

If a password is not specified, the user registration email will contain a link to the [Set Password](#) page, by default, to allow them to set their password.

The set password link contains a randomly generated token that expires after 30 days.

If a [Storage Server](#) was added by the administrator, the option to create a storage server group when creating a user will be displayed.

If the "Create Storage Server Group for this user" check box is checked in the storage server settings, a storage server group is created when this user is created.

The storage server group name, derived from the username, must be unique.

## Create new user

**User Name**

**User must set or change password at first login**  
*A password is optional if it must be set at first login.*

**Password**

**Confirm Password**

**Email Address**  ✕

**Send registration email now** 

**Role**  ▼ 

**Create storage server group for this user**

**Storage Server Group**

Select the groups the user is authorized to manage and click the "Save" button to create the user.

# Create new user

Select the groups the user is authorized to manage

| <input type="checkbox"/> | Name ↑           |  |
|--------------------------|------------------|--|
| <input type="checkbox"/> | Accounting       |  |
| <input type="checkbox"/> | Customer Support |  |
| <input type="checkbox"/> | Engineering      |  |
| <input type="checkbox"/> | Example          |  |
| <input type="checkbox"/> | Human Resources  |  |
| <input type="checkbox"/> | IT               |  |
| <input type="checkbox"/> | Marketing        |  |
| <input type="checkbox"/> | Pending          |  |
| <input type="checkbox"/> | Sales            |  |

◀ ◁ 1 1 of 1 ▶ ▷ 10 items per page ↻

[Back](#) [Save](#)

# View a user

From the "Users" view, click on the "View" button to view the details of a user.

## michael@example.com

---

User Groups

**User Name**  
michael@example.com

**Email Address**  
michael@example.com

**Role**  
User

Enabled

Locked Out

**Storage Server Group**  
michael@example.com

[Edit](#) [Delete](#)

# Edit a user

From the "User Details" view, click on the "Edit" button to edit the user.

## Edit User

User **Groups**

**User Name**  
michael@example.com X

**Password**  
Change Password

**Email Address**  
michael@example.com

**Role**  
User ▼

**Description**

**Enabled**

**Locked Out**

**Storage Server Group**  
michael@example.... ▼

Save

Click on the Groups tab to modify the groups the user is authorized to manage.

# Edit User

User Groups

Select the groups the user is authorized to manage.

| <input type="checkbox"/> | Name ↑           |  |
|--------------------------|------------------|--|
| <input type="checkbox"/> | Accounting       |  |
| <input type="checkbox"/> | Customer Support |  |
| <input type="checkbox"/> | Engineering      |  |
| <input type="checkbox"/> | Example          |  |
| <input type="checkbox"/> | Human Resources  |  |
| <input type="checkbox"/> | IT               |  |
| <input type="checkbox"/> | Marketing        |  |
| <input type="checkbox"/> | Pending          |  |
| <input type="checkbox"/> | Sales            |  |

1 1 of 1 10 items per page

Save

Click on the "Save" button to save the changes made to the user.

# Delete a user

From the "User Details" view, click on the "Delete" button to delete the user.

## Are you sure you want to delete this user?

---

**User Name**  
michael@example.com

**Email Address**  
michael@example.com

**Role**  
User

**Storage Server Group**  
michael@example.com

**Delete Storage Server Group**

 Delete

Check mark the "Delete Storage Server Group" check box to delete the storage server group associated with the user when deleting the user.

Click on the "Delete" button again to confirm deleting the user.

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.

# User Registration Settings

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

## User Registration Settings

**Allow User Registration**

**Notification Sender Name**

**Notification Sender Email Address**

**Notification Subject**  ⓘ

**Notification Body**

**B** **I** **U** abc

$\times_2$   $\times^2$  `</>` Format

(inherited font) (inherited size) **A**

`{% if (user.Password != '') %}Click here to login.{% else %}Click here to complete your registration.{% endif %}` ⓘ

### Test User Properties

**Name**

**Password**

**Email**

## 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 }}. |

| TYPE | DESCRIPTION   |
|------|---|
| 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               |
| 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.   |

# Roles

The "Roles" page contains the ability to create 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

[+ Add new role](#)

| Name   | Default  | Description  |                      |
|--|---|---|----------------------|
| Administrator  | false   | Administrator   | <a href="#">View</a> |
| Backup Auditor   | false   | Monitors backup and restore operation status  | <a href="#">View</a> |
| Backup Operator  | false   | Creates/Schedules/Performs backup and restore operations  | <a href="#">View</a> |
| Backup Support   | false   | Assists with backup and restore operations  | <a href="#">View</a> |
| User   | true  | The default user role   | <a href="#">View</a> |

  1 1 of 1   10  items per page 1 - 5 of 5 items 

# Storage Servers

The "Storage Servers" view allows an administrator to manage NovaBACKUP xSP Storage Servers.

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

# Add a storage server

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

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

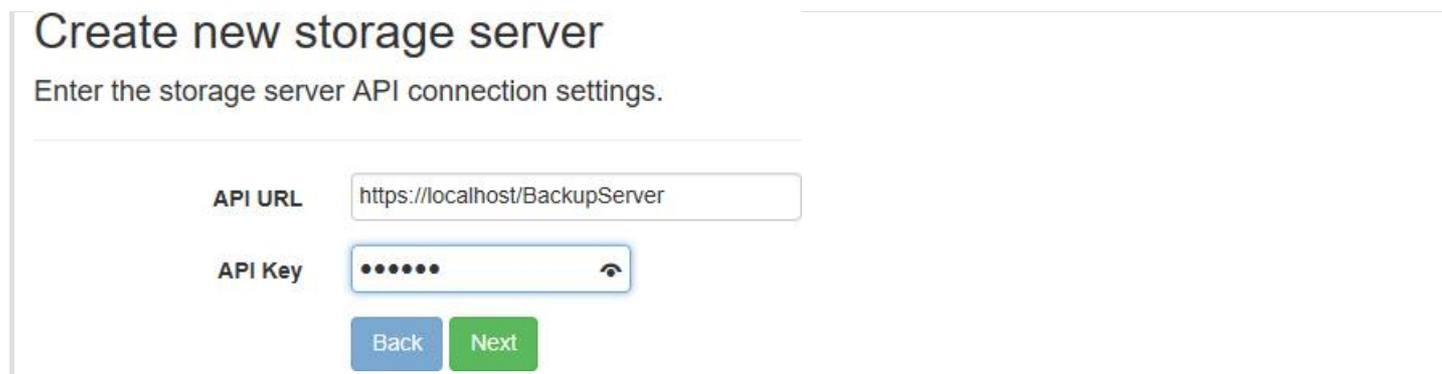
The storage server API is an optional feature installed with the NovaBACKUP Storage Server by default.

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 "web.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.

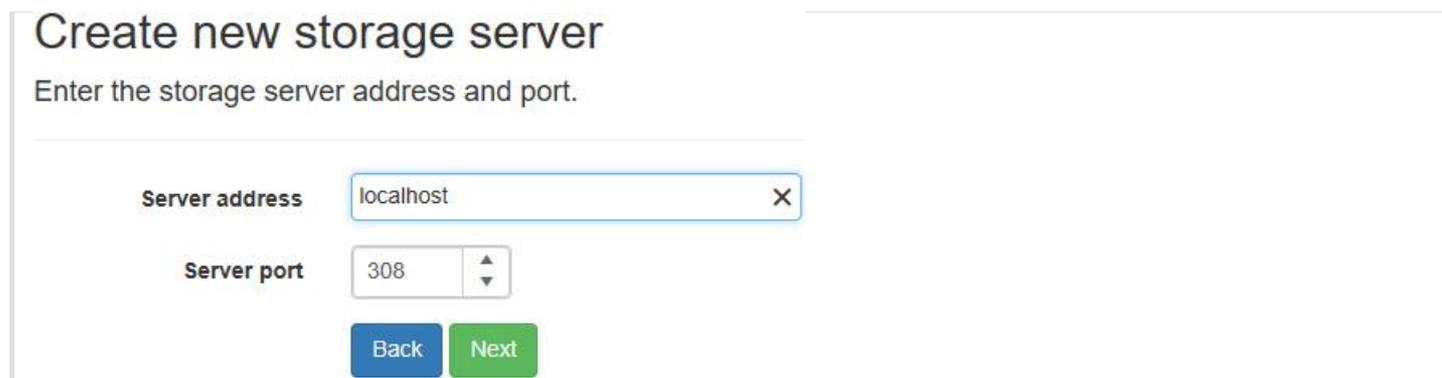
API URL:

API Key:

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.



**Create new storage server**  
Enter the storage server address and port.

Server address:

Server port:

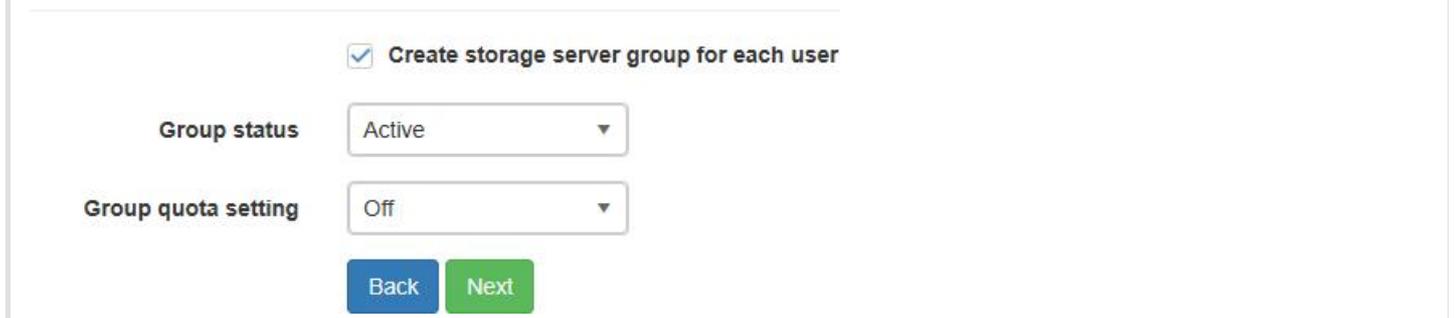
Enter the storage server group settings and click the "Next" button to continue.

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.

## Create new storage server

Enter the storage server group settings.



The screenshot shows a form titled "Create new storage server" with the instruction "Enter the storage server group settings." The form contains the following elements:

- A checked checkbox labeled "Create storage server group for each user".
- A dropdown menu labeled "Group status" with the value "Active" selected.
- A dropdown menu labeled "Group quota setting" with the value "Off" selected.
- Two buttons at the bottom: a blue "Back" button and a green "Next" button.

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.

# Create new storage server

Enter the storage server account settings.

|                                   |  |
|-----------------------------------|--|
|                                   | <input checked="" type="checkbox"/> <b>Enabled</b>   |
|                                   | <input checked="" type="checkbox"/> <b>User is required to enter a backup client license key</b> |
| <b>Account status</b>             | Active ▼   |
| <b>Account license</b>            | Normal ▼   |
| <b>Number of computers</b>        | 1 ▲▼   |
| <b>Account quota setting</b>      | Custom ▼   |
| <b>Account near quota percent</b> | 90 ▲▼  |
| <b>Account near quota action</b>  | Report Warning ▼   |
| <b>Account at quota action</b>    | Warning Window ▼   |
| <b>Account over quota percent</b> | 110 ▲▼   |
| <b>Account over quota action</b>  | Disable Backup ▼   |
|                                   | <input type="button" value="Back"/> <input type="button" value="Next"/>                          |

Enter the storage server account data storage and retention policy settings and click the "Save" 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 storage server

Enter the storage server account data storage and retention policy settings.

**Allow data access using master key**

**Primary storage**

**Restrict backups to primary storage**

**Restore window length**

**Restore window type**

**Delete account after a grace period since the account was disabled**

**Grace period (in days) before account is deleted**

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

## Storage Servers

| Address ↑ | Port | API URL                        |                                     |
|-----------|------|--------------------------------|-------------------------------------|
| localhost | 308  | https://localhost/BackupServer | <input type="button" value="View"/> |

Page 1 of 1 | 10 items per page | 1 - 1 of 1 items

Only one storage server is supported.

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

# Storage Server Groups

From the "Storage Server Details" view, click on the "View groups" button to view the storage server groups.

### Storage Server Groups

| Name ↑         | Description    | Status | Quota Setting | Quota  |                      |
|----------------|----------------|--------|---------------|--------|----------------------|
| Administrators | Administrators | Active | Off           | 200 MB | <a href="#">View</a> |
| Everyone       | All Users      | Active | Off           | 200 MB | <a href="#">View</a> |

Page 1 of 1 | 10 items per page | 1 - 2 of 2 items [Refresh](#)

# 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.

## Update Settings

---

**Automatically Check For Updates**

[Save](#)

# 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.

# 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\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 \(ASP.NET Settings Schema\)](#).

# Help

[Documentation](#)

[About](#)

[Known Issues](#)

# 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



NovaStor NovaBACKUP CMon

Product Version: 19.99.0.0

Last Modified Date: 7/24/2019 7:01:17 PM

Database Schema Version: 19.4.722.0

Client Browser: Mozilla/5.0 (Windows NT 10.0; WOW64; Trident/7.0; .NET4.0C; .NET4.0E; .NET CLR 2.0.50727; .NET CLR 3.0.30729; .NET CLR 3.5.30729; rv:11.0) like Gecko

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



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.

An update is available. 

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:

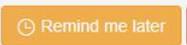
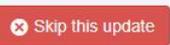
- The new version number.
- The released date of the new version.
- Links to "Download now" and "Learn more" if available.
- The last time a check for updates was performed.
- A "Remind me later" button which will snooze the product update notification for 24 hours.
- The next time the product update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

A product update is available.

Management Server v99.99.0.0

Released: 7/3/2019 5:00:00 PM



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

There are a few configuration files containing settings that can be modified to help troubleshoot issues that may arise.

For example, the main "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.

In both cases, errors will be logged in the app\_tracelog.svclog file in the Logs directory by default.

For example, with a default installation, it is located here: "C:\Program Files\NovaStor\NovaBACKUP Central Management Console\Service\Logs"

Also, if using the standalone web server, the main "Management Web Server" windows service configuration file with a default installation is located here: "C:\Program Files\NovaStor\NovaBACKUP Central Management Console\WebRoot\Web\bin\ManagementServer.WebServer.WindowsServiceHost.exe.config"

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

## 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 the "How to enable logging for the 'Management Server' windows service" section in this topic 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 the "How to enable logging for the 'Management Web Server' windows service" section in this topic 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.

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

### Enable Log Listeners

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

Change this: **XML**

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

to: **XML**

```
<configuration>
...
<loggingConfiguration ...>
...
<categorySources>
  <add switchValue="All" name="General" >
    <listeners>
      <add name="Event Log Listener" />
      <add name="Flat File Trace Listener" />
    </listeners>
  </add>
</categorySources>
...
```

### Enable WCF Verbose Activity Tracing

Set the switchValue attributes to Verbose, ActivityTracing.

Change this: **XML**

```
<configuration>
...
<system.diagnostics>
  <sources>
    <source name="System.ServiceModel" switchValue="Warning" propagateActivity="true">
      ...
    <source name="System.ServiceModel.MessageLogging" switchValue="Warning">
      ...
  </sources>
...
```

to: **XML**

```
<configuration>
...
<system.diagnostics>
  <sources>
    <source name="System.ServiceModel" switchValue="Verbose, ActivityTracing" propagateActivity="true">
      ...
    <source name="System.ServiceModel.MessageLogging" switchValue="Verbose, ActivityTracing">
      ...
  </sources>
</system.diagnostics>
</configuration>
```

## Enable Message Logging

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

Change this: **XML**

```
<configuration>
...
<system.serviceModel>
...
  <diagnostics>
    <messageLogging logMessagesAtServiceLevel="false" logMalformedMessages="false"
logMessagesAtTransportLevel="false" />
  </diagnostics>
</system.serviceModel>
</configuration>
```

to: **XML**

```
<configuration>
...
<system.serviceModel>
...
  <diagnostics>
    <messageLogging logMessagesAtServiceLevel="true" logMalformedMessages="true"
logMessagesAtTransportLevel="true" />
  </diagnostics>
</system.serviceModel>
</configuration>
```

## 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" />
</system.serviceModel>
</configuration>
```

to: **XML**

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

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

logMessagesAtTransportLevel, logEntireMessage, and logKnwonPii.

Change this: **XML**

```
<configuration>
...
<system.serviceModel>
...
  <diagnostics>
    <messageLogging logMessagesAtServiceLevel="false" logMalformedMessages="false"
logMessagesAtTransportLevel="false" />
...

```

to: **XML**

```
<configuration>
...
<system.serviceModel>
...
  <diagnostics>
    <messageLogging logMessagesAtServiceLevel="true" logMalformedMessages="true"
logMessagesAtTransportLevel="true" logEntireMessage="true" logKnwonPii="true" />
...

```

## 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 log.txt file in "C:\Program Files\NovaStor\NovaBACKUP Central Management Console\WebRoot" for example. After you are done troubleshooting, remember to revert your changes.

### Enable Log Listeners

Enable logging to a Flat File.

Change this: **XML**

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

```

to: **XML**

```
<configuration>
...
<loggingConfiguration ...>
...
<categorySources>
...
<add name="Info" switchValue="All" >
  <listeners>
    <add name="Flat File Destination" />
  </listeners>
</add>
</categorySources>
...
```