



Maintaining Insight

OnCommand Insight

NetApp

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Maintaining Insight

Whether you are new to Insight and have a new system to set up, or your system has been operating for some time, you must take steps to maintain smooth operation of Insight and your network. The key maintenance concept is that changes in your network usually need to be accommodated in Insight.

These are the most common maintenance tasks:

- Maintaining Insight backups
- Updating expired Insight licenses
- Coordinating data source patches
- Updating the Insight version on all acquisition units
- Deleting removed data sources from Insight

Managing Insight

OnCommand Insight monitors your environment, enabling you to research potential problems before a crisis is reported. The Assets Dashboard provides summary pie charts, heat maps for IOPS, and an interactive chart of the top 10 utilized storage pools.

Steps

1. Open the Insight **Assets Dashboard** and move your cursor over the pie charts to examine the asset distribution in these three charts:
 - Capacity by Vendor shows the total raw capacity for storage by each vendor.
 - Capacity by Tier shows the total useable capacity for each storage tier.
 - Switch Ports pie chart shows the manufacturers of ports and shows the percentage of ports used.
2. View **Facts About Your Environment** to see information about your environment's used capacity, the capacity's efficiency, consumed FC resources, and virtual infrastructure statistics.
3. Position your cursor over a storage pool bar in the **Top 10 Utilized Pools** chart to view the used and unused capacity of the storage pool.
4. Click any asset name appearing in large text (which indicates that the asset has issues) in the **Storage IOP** heat map to display a page summarizing the current state of that asset.
5. In the lower right corner of the **Assets Dashboard**, click any asset name appearing in large text (which indicates the asset has issues) in the **Virtual Machine IOPS** heat map to display a page summarizing the current state of the asset.
6. On the Insight toolbar, click **Admin**.
7. Note any areas showing solid red circles.

In the OnCommand Insightweb UI, potential problems are marked with a solid red circle.

8. Click **Data Sources** to examine a list of all monitored data sources.

Examine any data source with a **Status** column containing a message with a solid red circle and with an

Impact listed as High or Medium. These are at the top of the table. The problems with those data sources affect a significant portion of your network, which you need to address.

9. Click **Acquisition Units** to note the status for each IP address running Insight and to restart an acquisition unit, if necessary
10. Click **Health** to see high-level instance monitoring of the Insight servers.

Monitoring OnCommand Insight system health

You should periodically check the current status of your Insight system components by viewing the health page, which shows the status of each component and alerts you when there is an issue.

Steps

1. Log in to the Insightweb UI.
2. Click **Admin** and select **Health**.

The Health page is displayed.

3. View the summary of the current status of the components paying particular attention to any attention status in the **Details** column that is preceded by a red circle, which indicates an issue that requires your immediate attention.

The Health page displays information about any or all of the following Insight components based on your system configuration:

Component	Test	Details	Displays
Acquisition	Inventory data processing	Status of local acquisition unit	“OK” if number of concurrently-polling data sources is less than 75% of execution pool maximum (default maximum is 30). “Acquisition is busy” if usage is greater than 75%, and recommends increasing polling interval or adding more remote acquisition units.
DWH	Backup	Status of Data Warehouse scheduled backup	“OK” and the last successful DWH backup time if DWH scheduled backup is enabled. Otherwise, displays information about any error found.

DWH	ETL	Status of Data Warehouse ETL	"OK" and the last successful DWH build time if no errors. Otherwise, displays information about any error found.
Server	ASUP	Status of ASUP	<p>"ASUP Enabled" and the last successful phonehome time if available. "ASUP Failed" if phonehome is enabled but encountered a problem.</p> <p>+ "Invalid backup location" if backup directory is not valid.</p> <p>+ Displays the last successful phonehome time as well as time of the last failed attempt if available.</p> <p>+ "ASUP Disabled" if phonehome is disabled.</p>
Server	Auto resolution	Status of automatic device resolution	<p>"OK" if no errors. "Auto resolution is blocked" if identification errors prevent resolution progress.</p> <p>+ "Low success rate" if less than 75% of generic devices could be identified.</p>

Server	Elasticsearch	Status of elastic search data store	<p>“OK” if no errors. “Service unavailable” if unable to connect to elastic search service.</p> <p>+ “Cluster mode detected” if more than one node is detected.</p> <p>+ “High memory utilization” if heap space used is more than 85%.</p> <p>+ “Status: RED” indicates an error reported by elastic search. Displays information about the error and recommends contacting customer support.</p>
Server	CPU	Insight CPU usage	“OK” if CPU load is less than 65%. “System CPU load is high. Reduce your CPU load.” if CPU load is greater than 65%.
Server	Disk space	Status of disk space	Free disk space, disk space in use by Insight, and recommended disk space reserved for Insight. “Low Disk Space” if disk utilization is more than 80%.
Server	EventBus	Status of EventBus	“EventBus is empty” if EventBus queue is empty, otherwise displays status of EventBus queue.
Server	Inventory data processing	Status of inventory data processing capability of Insight server	“OK” if Insight server is not busy. “Server is busy” if the server is busy at least 75% of the time for the last hour. Recommends not adding more data sources and recommends splitting the environment to several servers.

Server	MySQL	Status of MySQL database	<p>“OK” if no problems are detected. “The database is having performance issues. Some queries are taking too long to run” if the number of slow queries is more than 5%.</p> <p>+ “The database log file grew more than <size> in the past hour. Check MySQL log file” if the error log grows to more than 20 KB.</p>
Server	Performance archive	Status of performance archive	“Performance archive is enabled” or “Performance archive is not enabled”.
Server	Physical memory	Status of physical memory	“OK” if memory usage is less than 85%. “Memory usage is high. Reduce your overall memory footprint for system stability” if memory usage is greater than 85%.
Server	Service pack	Service pack availability	Displays whether a service pack is available for Insight. If a service pack is available, displays instructions.
Server	Usage information	Status of sending of usage information	<p>Displays whether sending of usage information to NetApp is enabled or disabled. Recommends enabling if disabled. Displays last attempted or last successful send time.</p> <p>+ Displays information on any problems encountered.</p>

Server	Violation	Status of open violations	<p>“OK” if the number of open violations is less than 75% of the violations limit.</p> <p>“Maximum number of open violations allowed is <number>” if the number of open violations is greater than 75% of the violations limit. Recommends reviewing performance policy configuration.</p> <p>+ “Violation manager is blocked” if the number of open violations is at the violations limit.</p> <p>+ Note that the violation manager cannot create new violations and recommends reviewing performance policy configuration.</p>
Server	Weekly backup	Status of weekly backup	“OK” if weekly backup is enabled, otherwise displays “Weekly backup is not enabled”.

Deleting inactive devices

Deleting devices that are inactive helps keep your data cleaner and easier to navigate.

About this task

To delete inactive devices from Insight, do the following:

Steps

1. Create a new query or open an existing query.
2. Choose either the *generic device*, *host*, *storage*, *switch*, or *tape* asset type.
3. Add a filter for **Is active**, and set the filter to **No**.

The results table displays only assets that are not active.

4. Select the devices that you want to delete.
5. Click the **Actions** button and select **Delete Inactive Devices**.

Your inactive devices are deleted and will no longer be displayed in Insight.

Auditing system and user activities

If you want to locate unexpected changes, you can view an audit trail of the OnCommand Insight system and its user activities. Audit log messages can optionally be sent to syslog in addition to being displayed on the Audit page.

About this task

Insight generates audit entries for any user activities that affect the storage network or its management, including the following:

- Logging in
- Authorizing or unauthorizing a path
- Updating an authorized path
- Setting global policies or thresholds
- Adding or removing a data source
- Starting or stopping a data source
- Updating data source properties
- Adding, editing, or deleting a task
- Removing an application group
- Identifying or changing the identification for a device
- Create a user
- Delete a user
- User role change
- Modify a user (Guest à Admin)
- Logout of a user (either forced logout or manual logout)
- Deleting an acquisition unit
- Update License
- Enabling backup
- Disabling Backup
- Enabling ASUP (Enabling Proxy on same page is reported in audit log)
- Disabling ASUP (Disabling Proxy on same page is reported in audit log)
- Security - re-key, change system passwords.
- Removing/adding annotations on assets
- CAC user logon / logoff
- CAC user session timeout

Steps

1. Open Insight in your browser.
2. Click **Admin** and select **Audit**.

The Audit page displays the audit entries in a table.

3. You can view the following details in the table:

- **Time**

Date and time that the changes were made

- **User**

Name of user associated with the audit entry

- **Role**

User account's role, which is guest, user, or administrator

- **IP**

IP address associated with the audit entry

- **Action**

Type of activity in the audit entry

- **Details**

Details of the audit entry

If there is a user activity that affects a resource, such as a data source or an application, the details include a link to the resource's landing page.



When a data source is deleted, the user activity details related to the data source no longer contain a link to the data source's landing page.

4. You can display audit entries by choosing a particular time period (1 hour, 3 hours, 24 hours, 3 days, and 7 days), with Insight showing a maximum number of 1000 violations for the selected time period.

You can click a page number below the table to browse through data by page if there is more data than fits on a single page.

5. You change the sort order of the columns in a table to either ascending (up arrow) or descending (down arrow) by clicking the arrow in the column header; to return to the default sort order, click any other column header.

By default, the table displays the entries in descending order.

6. You can use the **filter** box to show only the entries you want in the table.

To see only the audit entries by the user izzyk, type izzyk in the **filter** box.

Monitoring the violations in your network

When Insight generates violations due to the thresholds set in performance policies, you can view them using the Violations Dashboard. The dashboard lists all the violations that occur in your network and enables you to locate and address issues.

Steps

1. Open OnCommand Insight in your browser.
2. On the Insight toolbar, click **Dashboards** and select **Violations Dashboard**.

The Violations Dashboard displays.

3. You can use the **Violations By Policies** pie chart in the following ways:
 - You can position your cursor over any slice of a chart to display the percentage of the total violations that occurred for a particular policy or metric.
 - You can click a slice of a chart to “enlarge” it, which enables you to emphasize and study more carefully that slice by moving it away from the rest of the chart.
 - You can click the  icon in the upper-right corner to display the pie chart in full screen mode, and click  again to minimize the pie chart. A pie chart can contain a maximum of five slices; thus, if you have six policies that generate violations, Insight combines the fifth and sixth slices into an “Others” slice. Insight assigns the most violations to the first slice, the second most violations to the second slice, and so on.
4. You can use the **Violations History** chart in the following ways:
 - You can position your cursor over the chart to display the total number of violations that occurred at a particular time and the number that occurred out of the total for each specified metric.
 - You can click a legend label to remove the data associated with the legend from the chart.

Click on the legend to display the data again.

- You can click the  icon in the upper-right corner to display the chart in full screen mode, and click  again to minimize the pie chart.

5. You can use the **Violations Table** in the following ways:
 - You can click the  icon in the upper-right corner to display the table in full screen mode, and click  again to minimize the pie chart.

If your window size is too small, then the Violations Table displays only three columns; however, when you click , additional columns (up to seven) display.

- You can display violations for a particular time period (**1h**, **3h**, **24h**, **3d**, **7d**, and **30d**), with Insight showing a maximum number of 1000 violations for the selected time period.
- You can use the **filter** box to show only the violations you want.
- You can change the sort order of the columns in a table to either ascending (up arrow) or descending (down arrow) by clicking the arrow in the column header; to return to the default sort order, click any other column header.

By default, the table displays the violations in descending order.

- You can click a violation in the ID column to display the asset page for the duration of the violation.
- You can click the resource links (for example, storage pool and storage volume) in the Description column to display the asset pages associated with those resources.
- You can click the performance policy link in the Policy column to display the Edit Policy dialog box.
 - You might want to adjust the thresholds for a policy if you feel it generates too few or too many violations.
- You can click a page number to browse through data by page if there is more data than fits on a single page.
- You can click  to dismiss the violation.

Acquisition unit status

The Acquisition Unit screen provides a view of all your acquisition units, including status and any errors present.

The status of the Insight acquisition units connected to your server is displayed in the **Admin > Acquisition Units** table. This table displays the following information for each acquisition unit:

- **Name**
- **IP**
- **Status** is the operating status of the acquisition unit.
- **Last reported** displays the last time a data source connected to the acquisition unit reported.
- **Note** displays a user-entered note related to the AU.

If an acquisition unit in the list has a problem, the Status field will show a red circle with brief information about the problem. You should investigate any acquisition unit problems, as they likely affect data collection.

To restart an acquisition unit, hover over the unit and click on the *Restart Acquisition Unit* button that appears..

To add a text note, hover over an acquisition unit and click the *Add Note* button that appears. Only the most recently entered note is displayed.

Restoring the Insight database

To restore your Insight database from a verified backup file, use the Troubleshooting options. This operation completely replaces your current OnCommand Insight data.

Before you begin

Best practice: Before restoring your OnCommand Insight database, use the manual backup process to create a copy of the current database. Check the backup file you plan to restore be certain that it was a successful backup containing the files you want to restore.

Steps

1. On the Insight toolbar, click **Admin**.

2. Click Troubleshooting.

The screenshot shows the 'Send / Collect data' section with three buttons: 'Backup' (description: 'Backup the database (configuration and performance) into a ZIP file.'), 'Bundle logs' (description: 'Collect all log files (including acquisition recordings) and bundle them into a ZIP file. Can be used to send data back to NetApp support when troubleshooting an issue with the software.'), and 'Send ASUP now' (description: 'Forces an ad-hoc ASUP report. Can be used to allow NetApp support to get the latest support data when troubleshooting an issue with the software.'). Below this is the 'Restore a database' section with a 'Select backup' dropdown set to 'Selected backup' (No file selected) and a 'Restore' button. A warning message 'Warning: Your current database will be discarded!' is displayed. The 'Other tasks' section includes links to 'OnCommand Insight Portal' and 'scrub utilities'.

3. In the Restore a database section, select the backup file you want to restore from the **Select Backup** menu.
4. Click **Restore**.
5. On the warning that all data will be replaced, click **OK**

The status of the restore activity is displayed on the restore page.

Updating expired licenses

If one or more of your Insight licenses expired, you can update the licenses quickly using the same procedure as you did to install the licenses originally.

Steps

1. In a text editor, such as Notepad, open the new license file you received from NetApp Support and copy the license key text to your Windows Clipboard.
2. Open OnCommand Insight in your browser.
3. Click on **Admin** on the toolbar.
4. Click **Setup**.
5. Click the **Licenses** tab.
6. Click **Update License**.
7. Copy the license key text into the **License** text box.
8. Select the **Update (most common)** operation.

This operation adds your new licenses to any currently active Insight licenses.

9. Click **Save**.
10. If you are using the Insight consumption licensing model, you must check the box to **Enable sending**

usage information to NetApp in the usage section. Proxy must be properly configured and enabled for your environment.

Licenses no longer compliant

If you notice the "Not Compliant" message on your Insight Licenses page, Insight is managing more terabytes than your company licensed.

The "Not Compliant" message means your company paid for fewer terabytes than Insight is currently managing. The difference between the managed terabytes and the licensed number of terabytes is shown beside the non-compliance message.

The operation of your Insight system is not affected, but you should contact your NetApp representative to increase your license coverage and update the appropriate license.

Replacing licenses for older Insight versions

If you have purchased a new Insight version that is not backward compatible with your older version of the product, you must replace the older licenses with the new licenses.

When you are installing the new licenses, you must select the **Replace** operation before you save the license key text.

Applying a service pack

Periodically, service packs are available, which you can apply to take advantage of fixes and enhancements to OnCommand Insight.

Before you begin

- You must have downloaded the service pack file (for example, 7.2service_pack_1.patch) from the NOW site.
- You must have approved all patches.

Steps

1. On the Insight toolbar, click **Admin**.
2. Click **Patches**.
3. From the Actions button, select **Apply patch**.
4. In the **Apply data source patch** dialog box, click **Browse** to locate the service pack file.
5. Inspect the **Patch name**, **Description**, **Impacted data source types**, which shows if any data sources are affected, and **Details**, which describes the enhancements that the service pack contains.
6. If the selected service pack is correct, click **Apply Patch**.

Service packs are approved automatically; no further action is required.

Preparing a special troubleshooting report

Insight sends information to NetApp Customer Support automatically through the ASUP system you set up after installing the software. However, you might want to create a troubleshooting report and open a case with the Support team for a specific problem.

You can use tools in Insight to perform a manual Insight backup, bundle the logs, and send that information to NetApp Customer Support.

Manually backing up the OnCommand Insight database

If you enabled weekly backups for the OnCommand Insight database, you are automatically generating copies that you can use to restore the database, if necessary. If you need to create a backup before a restore operation, or to send to NetApp technical support for assistance, you can create a backup .zip file manually.

Steps

1. On the Insight toolbar, click **Admin**.
2. Click **Troubleshooting**.
3. In the Send/Collect data section, click **Backup**.
4. Click **Save File**.
5. Click **OK**.

Bundling logs for Support

When troubleshooting a problem with Insight software, you can quickly generate a zip file (using the "gz" format) of the logs and acquisition recordings to send to NetApp Customer Support.

Steps

1. On the Insight toolbar, click **Admin**.
2. Click **Troubleshooting**.
3. In the Send / Collect data section, click **Bundle logs**.
4. Click **Save File**.
5. Click **OK**.

Sending information to NetApp Support

The NetApp automated support (ASUP) facility sends troubleshooting information directly to the NetApp Customer Support team. You can force a special report to be sent.

Steps

1. On the Insight toolbar, click **Admin**.

2. Click **Setup**.
3. Click the **Backup/ASUP** tab.
4. In the Send/Collect data area, click **Send ASUP now** to submit your logs, recordings, and backup to NetApp Support.

The screenshot shows the 'Send / Collect data' section with three buttons: 'Back up', 'Bundle logs', and 'Send ASUP now'. The 'Back up' button is described as backing up the database (configuration and performance) into a ZIP file. The 'Bundle logs' button is described as collecting all log files (including acquisition recordings) and bundling them into a ZIP file for troubleshooting. The 'Send ASUP now' button is described as forcing an ad-hoc ASUP report and can be used to allow NetApp support to get the latest support data when troubleshooting an issue with the software.

The 'Restore a database' section shows a 'Selected backup' dropdown set to 'No file selected' and a 'Restore' button. A warning message states: 'Warning: Your current database will be discarded!'

The 'Other tasks' section contains links: 'Couldn't find what you are looking for? Connect to the old OnCommand Insight Portal' and 'Need to send anonymous data back? Open the [scrub utilities](#)'.

Scrubbing data for transfer to support

Customers who have secure environments need to communicate with NetApp Customer Service to troubleshoot problems that arise without compromising their database information. The OnCommand Insight Scrub utilities allow you set up a comprehensive dictionary of keywords and patterns so that you can "cleanse" sensitive data and send scrubbed files to Customer Support.

Steps

1. In the web UI, click **Admin** and select **Troubleshooting**.
2. At the bottom of the page in the Other tasks area, click the **Scrub utilities** link.

There are several scrub sections: Lookup in Dictionary, Scrub data, and Build dictionary, Custom keywords, and Regular expressions.

3. a. In the **Lookup in dictionary** section, Enter a code to display the value it replaces, or enter a value to see the code that replaces it. Note: before you can do a lookup, you must **Build** the dictionary to identify values to scrub from the support data.
4. To add your own keywords to scrub from the support data, in the **Custom keywords** section, click **Actions > Add custom keyword**. Enter a keyword and click **Save**. The keyword is added to the dictionary.
5. Expand **Patterns (regexp)**. Click **Add** to get the dialog box for entering a new pattern.
6. To use a regular expression to identify words or phrases to scrub, enter a pattern or patterns in the **Regular expressions** section. Click **Actions > Add regular expression**, enter a Name for the pattern and the Regular expression in the fields and click **Save**. The information has been added to the dictionary.



Patterns must be encompassed by round parentheses to identify a regular expression capturing group.

7. In the **Build dictionary** section, click **Build** to initiate compilation of the dictionary of all words identified as sensitive from the OnCommand Insight database.

On completion, you see a prompt informing you the revised dictionary is available. The Database description includes a line indicating how many keywords are in the dictionary. Check your keywords in the dictionary for accuracy. If you find problems and want to rebuild the dictionary, click **Reset** on the Database block to remove all keywords collected from the OnCommand Insight database from the dictionary. As the prompt advises, no other keywords will be deleted. Return to the Scrub utilities and enter your Custom Keywords again.

8. After you create a Scrub dictionary, you can use it to scrub a log, XML, or other text file to make the data anonymous.
9. To scrub a log, XML, or other text file, in the **Scrub data** section, Browse to locate the file and click **Scrub file**.

Advanced troubleshooting

To complete your OnCommand Insight configuration, you must use the advanced troubleshooting tools. These tools run in the browser and are opened from the **Admin > Troubleshooting** page.

To open the advanced troubleshooting tools in the browser, click the **Advanced Troubleshooting** link at the bottom of the page.

The advanced troubleshooting tools allow you to view various reports, system information, installed packages, and logs, as well as perform numerous actions such as restarting the server or acquisition units, update DWH annotations, and import annotations.

See the Advanced Troubleshooting page for all available options.

Configuring the number of hours to ignore dynamic data

You can configure the number of hours during which OnCommand Insight ignores updating dynamic data, such as used capacity. If the default of six hours is used and no configuration changes occur, reports will not be updated with dynamic data until after the default number of hours. This option improves performance because this option defers updates when only the dynamic data changes.

About this task

If a value is set for this option, OnCommand Insight will update dynamic data based on the following rules:

- If no configuration changes occur but capacity data changes, data will not be updated.
- Dynamic data (other than configuration changes) will be updated only after the timeout specified in this option.
- If configuration changes occur, configuration and dynamic data is updated.

Dynamic data impacted by this option includes the following:

- Capacity violation data
- File Systems Allocated Capacity and Used Capacity
- Hypervisor
 - Virtual Disk Used Capacity
 - Virtual Machine Used Capacity
- Internal Volume
 - Data Allocated Capacity
 - Data Used Capacity
 - Deduplication Savings
 - Last Known Access Time
 - Last Snapshot Time
 - Other Used Capacity
 - Snapshot Count
 - Snapshot Used Capacity
 - Total Used Capacity
- iSCSI Session Initiator IPs, Target Session ID, and Initiator Session ID
- Qtree Quota Used Capacity
- Quota Used Files and Used Capacity
- Storage Efficiency Technology, Gain/Loss, and Potential Gain/Loss
- Storage Pool
 - Data Used Capacity
 - Deduplication Savings
 - Other Used Capacity
 - Snapshot Used Capacity
 - Total Used Capacity
- Volume
 - Deduplication Savings
 - Last Known Access Time
 - Used Capacity

Steps

1. On the Insight toolbar, click **Admin** and select **Troubleshooting**.
2. At the bottom of the page in the Other tasks area, click the **Advanced Troubleshooting** link.
3. Click the **Advanced settings** tab, in the Acquisition Dynamic Attributes section enter the number of hours that OnCommand Insight should ignore dynamic data for Acquisition Dynamic Attributes.
4. Click **Save**.

5. (Optional) To restart the acquisition unit, click the **Restart Acquisition Unit** link.

Restating the local acquisition unit reloads all of the OnCommand Insight data source views. This change is applied during the next poll, so you do not have to restart the Acquisition Unit.

Generating logs for Customer Support

If requested by Customer Support, generate a server, acquisition, or remote log for troubleshooting purposes.

About this task

If NetApp Customer Support requests, use this option to generate the logs.

Steps

1. On the Insight toolbar, click **Admin** and select **Troubleshooting**.
2. At the bottom of the page in the Other tasks area, click **Advanced Troubleshooting**.
3. On the next page in the Advanced menu, click the **Troubleshooting** link.
4. Click the **Logs** tab and select the log file to download.

A dialog box opens allowing you to open the log or save the log locally.

Displaying system information

You can display the Microsoft Windows IP configuration information about the system on which OnCommand Insight server is deployed.

Steps

1. On the Insight toolbar, click **Admin** and select **Troubleshooting**.
2. At the bottom of the page in the Other tasks area, click the **Advanced Troubleshooting** link.
3. On the Advanced Troubleshooting page, click the **Reports** tab.
4. Click **System Information**.

The Windows IP configuration includes information such as the host name, DNS, IP address, subnet mask, OS information, memory, boot device, and connection name.

Listing installed OnCommand Insight components

You can display a list of the installed OnCommand Insight components including, among others, inventory, capacity, dimensions, and the Data Warehouse views. Customer Support might ask you for this information, or you might want to see what software versions were installed and when they were installed.

Steps

1. On the Insight toolbar, click **Admin** and select **Troubleshooting**.
2. At the bottom of the page in the Other tasks area, click the **Advanced Troubleshooting** link.
3. On the Advanced Troubleshooting page, click the **Reports** tab.
4. Click **Installed Software Packages**.

Calculating the number of database objects

To determine the number of objects in the OnCommand Insight database, use the Calculate Scale feature.

Steps

1. On the Insight toolbar, click **Admin** and select **Troubleshooting**.
2. At the bottom of the page in the Other tasks area, click the **Advanced Troubleshooting** link.
3. On the Advanced Troubleshooting page, click the **Reports** tab.
4. Click **Calculated Scale**.

Restarting the OnCommand Insight Server

When you restart the OnCommand Insight Server, refresh the page and log into the OnCommand Insight Portal again.

About this task



Both of these options should only be used upon request by NetApp Customer Support. There is no confirmation prior to restart.

Steps

1. On the Insight toolbar, click **Admin** and select **Troubleshooting**.
2. At the bottom of the page in the Other tasks area, click the **Advanced Troubleshooting** link.
3. On the next page in the Advanced menu, click the **Actions** tab.
4. Click **Restart Server**.

Moving MySQL data using the migrate option

You can use migrate MySQL data directory to a different directory. You can retain the current data directory. You can use the migrate option on the Troubleshooting menu or you can use the command line. This procedure describes how to use the **Troubleshooting > Migrate MySQL data** option.

About this task

If you retain the current data directory, it will be kept as a backup and renamed.

Steps

1. In the web UI, click **Admin** and select **Troubleshooting**.
2. Click **Advanced Troubleshooting**.
3. Select the **Actions** tab
4. Select **Migrate MySQL Data**.
5. Enter the path to which you want to migrate the data.
6. To retain the existing data directory, check **Keep existing data directory**.
7. Click **Migrate**.

Moving MySQL data using the command line

You can use migrate MySQL data directory to a different directory. You can retain the current data directory. You can use the migrate option on the Troubleshooting menu or alternatively, you can use the command line. This procedure describes how to use the command line.

About this task

If you retain the current data directory, it will be kept as a backup and renamed.

You can use the Migrate MySQL Data utility or you can use a `java -jar mysqldatamigrator.jar` option in the OnCommand Insight path of `\bin\mysqldatamigrator` where the following parameters should be used:

- Mandatory parameters

- **-path**

The new data path to which the data folder will be copied.

- Optional parameters

- **-myCnf <my .cnf file>**

The path for the .cnf file. The default is `<install path>\mysql\my.cnf`. Use this flag only if a non-default MySQL is used.

- **-doBackup**

If this flag is set, the current data folder will be renamed but not deleted.

Steps

1. Access the command line tool here: `<installation path>\bin\mysqldatamigrator\mysqldatamigrator.jar`

Example usage

```
java -jar mysqldatamigrator.jar -path "C:\<new path>" -doBackup
```

Forcing annotation updates

If you have changed the annotations and want to use them in reports immediately, use one of the force annotation options.

Steps

1. In the web UI, click **Admin** and select **Troubleshooting**.
2. On the bottom of the page, click the **Advanced Troubleshooting** link.
3. Click the **Actions** tab.
4. Select one of these options:
 - **Update DWH Annotations** to force the update of annotations in data warehouse to be used for reports.
 - **Update DWH Annotations (incl. deleted)** to force an annotations update (including deleted objects) in the data warehouse to be used for reports.

Checking the status of server resources

This option displays the OnCommand Insight Server's information including server memory, disk space, OS, and CPU and OnCommand Insight database information including innoDB data size and the disk free space where the database resides.

Steps

1. On the Insight toolbar, click **Admin** and select **Troubleshooting**.
2. At the bottom of the page in the Other tasks area, click the **OnCommand Insight Portal** link.
3. On the next page in the Advanced menu, click the **Troubleshooting** link.
4. Click **Server Resources Status**.

For advanced OnCommand Insight users: The administrator can run some SQL tests to check the database and server's response time from the button at the end of the information summary. This option displays a warning if server resource is low.

Finding ghost data sources

If you have removed a device but the device data remains, you can locate any ghost data sources so that you can remove them.

Steps

1. In the web UI, click **Admin** and select **Troubleshooting**.
2. At the bottom of the page in the Other tasks area, click the **Advanced Troubleshooting** link.
3. On the **Reports** tab, click the **Ghost Data Sources** link.

OnCommand Insight produces a list of originators with their device information.

Adding a missing disk model

If acquisition fails due to an unknown disk model, you can add the missing disk model to the `new_disk_models.txt` file and run acquisition again.

About this task

As part of a poll of a storage device by OnCommand Insight acquisition, the disk models on the storage device are read. If a vendor has added new disk models to their array that Insight doesn't know about, or if there is a mismatch between the model number Insight looks for and the one returned by the storage device, acquisition of that data source will fail with an error. In order to prevent these errors, it is necessary to update the disk model information known to Insight. New disk models are added to Insight with updates, patches and maintenance releases. However, you may decide to update this information manually instead of waiting for a patch or update.

Because OnCommand Insight reads the disk model file every five minutes, any new data model information you enter is updated automatically. You do not need to restart the server for the changes to take effect, but you can opt to restart the server and any remote acquisition units (RAUs) to have the changes take effect before the next update.

Disk model updates are added to the `new_disk_models.txt` file located in the `<SANScreenInstallDir>\wildfly\standalone\deployments\datasources.war` directory. Understand the information needed to describe your new disk model before updating the `new_disk_models.txt` file. Inaccurate information in the file produces incorrect system data and could result in failed acquisition.

Follow these instructions to manually update Insight disk models:

Steps

1. Locate the proper information for your disk model.
2. Using a text editor, open the `new_disk_models.txt` file.
3. Add the required information for the new data source.
4. Save the file in the `<SANScreenInstallDir>\wildfly\standalone\deployments\datasources.war` directory on your server.
5. Back up the `new_disk_models.txt` file to a safe location. During any subsequent OnCommand Insight upgrade, this file will be overwritten. If your disk model information is not present in the upgraded file, you will need to re-enter it.

Locating required information for new disk model

To locate the disk model information, identify the vendor and model number and run an Internet search.

About this task

Locating disk model information is as simple as running an internet search. Be sure to note the vendor name and disk model number before searching.

Steps

1. It is recommended to use an advanced internet search for the vendor, model, and document type “PDF” to find the vendor’s data sheet and/or installation guide for the drive. These data sheets are usually the best source for vendor disk information.
2. Vendor specifications do not always provide all of the necessary information based on the full model number. It is often useful to search for different parts of the model number string on the vendor’s site to locate all of the information.
3. Locate the disk vendor name, full model number, disk size and speed, and the interface type in order to define the new disk model in OnCommand Insight. You can use the following table as a guide to help note this information as you find it:

For this field:	Which is:	Enter this:
Model number (aka Key)	Required	
Vendor	Required	
Disk speed (RPM)	Required	
Size (in GB)	Required	
Interface Type (select one)	Required	ATA, SATA, SATA2, SATA3, FC, SAS, FATA, SSD, OTHER
Seek time in ms	Optional	
Maximum transfer rate in MB/sec	Optional	
Interface transfer rate in MB/sec	Optional	
Link to vendor/model information	Optional but recommended	

4. Enter that information into the `new_disk_models.txt` file. See [Content of the new_disk_models.txt file](#) for format, order, and examples.

[Content of the new_disk_models.txt file](#)

The `new_disk_models.txt` file has required and optional fields. The fields are comma separated, so do not use commas *within* the fields.

All fields are required except for seek time, transfer rates and `additional_info`. If available, include the vendor/model website link in the `additional_info` field.

Using a text editor, enter the following information in this order, separated by commas, for each new disk model you wish to add:

1. **key**: use the model number (required)
2. **vendor**: name (required)

3. **model number**: full number (usually the same value as in "key") (required)
4. **rpm of the disk**: for example 10000 or 15000 (required)
5. **size**: capacity in GB (required)
6. **interface type**: ATA, SATA, FC, SAS, FATA, SSD, OTHER (required)
7. **seek time**: in ms (optional)
8. **potential transfer rate**: the potential transfer rate in MB/sec. Maximum transfer rate of the disk itself. (optional)
9. **interface transfer rate**: the rate to and from the host in MB/sec (optional).
10. **Additional Info**: Any additional information you want to capture. Best practice is to enter the link to the vendor page where the specs are found, for reference (optional)

For any optional fields left blank, be sure to include the comma.

Examples (each on one line with no spaces):

ST373405,Seagate,ST373405,10000,73,FC,5.3,64,160,[http://www.seagate.com/staticfiles/support/disc/manuals/enterprise/cheetah/73\(LP\)/100109943e.pdf](http://www.seagate.com/staticfiles/support/disc/manuals/enterprise/cheetah/73(LP)/100109943e.pdf)

SLR5B-M400SS,HITACHI,SLR5B-M400SS,1000000,400,SSD,,,

X477_THARX04TA07,TOSHIBA,X477_THARX04TA07,7200,4000,SATA,9.5,,,<https://storage.toshiba.eu/export/sites/toshiba-sdd/media/products/datasheets/MG03ACAxxy.pdf>

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