



Advanced options

OnCommand Insight

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Advanced options

Data Warehouse includes various advanced options.

Skipping failed builds

After your first build, sometimes you might encounter an unsuccessful build. To ensure that all the jobs after an unsuccessful build complete successfully, you can enable the **Skip history build failures** option.

About this task

If a build fails and the **Skip history build failures** option is enabled, Data Warehouse continues building and ignores any failed builds. If this occurs, there will not be a data point in the historical data for any skipped builds.

Use this option only if the build is not successful.

If a build fails in Build from History and the **Skip history build failures** check box is not selected, all subsequent jobs are aborted.

Steps

1. Log in to the Data Warehouse Portal at `https://hostname/dwh`, where `hostname` is the name of the system where OnCommand Insight Data Warehouse is installed.
2. From the navigation pane on the left, click **Build from history**.

Build From History

Target time	Start running	Status
3/13/15 12:00 AM	3/25/15 9:28 AM	COMPLETED
3/14/15 12:00 AM	3/25/15 9:34 AM	COMPLETED
3/15/15 12:00 AM	3/25/15 9:39 AM	COMPLETED
3/16/15 12:00 AM	3/25/15 9:45 AM	COMPLETED
3/17/15 12:00 AM	3/25/15 9:51 AM	COMPLETED
3/18/15 12:00 AM	3/25/15 9:57 AM	COMPLETED
3/19/15 12:00 AM	3/25/15 10:03 AM	COMPLETED
3/20/15 12:00 AM	3/25/15 10:09 AM	COMPLETED
3/21/15 12:00 AM	3/25/15 10:16 AM	COMPLETED
3/22/15 12:00 AM	3/25/15 10:23 AM	COMPLETED
3/23/15 12:00 AM	3/25/15 10:30 AM	COMPLETED
3/24/15 12:00 AM	3/25/15 10:38 AM	COMPLETED
3/25/15 12:00 AM	3/25/15 10:44 AM	COMPLETED

Cancel Pending Jobs

Configure

Run

Skip history build failures: ☒

3. Click **Configure**.
4. Configure the build.
5. Click **Save**.
6. To skip failed builds, check **Skip history build failures**.

You can see this check box only if the **Run** button is enabled.

7. To perform a build outside of the automatic scheduled build, click **Run**.

Resetting the Data Warehouse database or Reporting server

You can delete the contents of the Data Warehouse data marts and delete all configured connectors. You might want to do this if an installation or upgrade did not complete successfully and it left the Data Warehouse database in an intermediate state. You can also delete only the Inventory data model or the Cognos Reporting data model.

Steps

1. Log in to the Data Warehouse Portal at <https://hostname/dwh>, where `hostname` is the name of the system where OnCommand Insight Data Warehouse is installed.
2. From the navigation pane on the left, click **Reset DWH database**.
3. Click one of the following options:

- **Reset DWH Database**

This deletes the contents of all Data Warehouse data marts and all configured connectors and places the Data Warehouse to the default installed state without any custom configurations. You might choose this option, for example, if you changed your connected servers, but restored a different Data Warehouse database accidentally on your server and need to return to a default installed state. This does not delete any reports. (Reports are saved in the Cognos Content Store.)

- **Reset Inventory Only**

This deletes the contents of the Inventory data model only. This does not delete any historical data.

- **Reset Reporting Content**

This resets the content of the reporting server. This deletes any custom reports you may have. Backup your reports before you choose this option.

A warning message displays.

4. To continue, click **Yes**.

Restoring and upgrading reports for versions prior to 6.3

If you are upgrading an Insight version prior to 6.3, you must manually restore your reporting artifacts.

Before you begin

Follow the instructions in the "Upgrading the Data Warehouse (DWH)" and "Backing up custom reports and reporting artifacts" topics.

Steps

1. To restore Reporting artifacts from releases prior to version 6.3, copy the Export Backup.zip file you created and stored in your <install>\cognos\c10_64\deployment directory.
2. Open a browser and go to <http://<server>:<port>/reporting> for the server and port you used during installation.
3. Enter your user name and password and click **Login**.
4. From the **Launch** menu, select **Insight Reporting Administration**.
5. Click the **Configuration** tab.

Due to changes in the data model, the reports in the old packages may not run and need to be upgraded.

6. Click **Content Administration**.
7. Click the **New Import** button.
8. Make sure that archive you copied to the deployment directory (for example, backup6.0.zip) is selected, and click **Next**.
9. If you entered a password to protect the archive, enter the password and click **OK**.
10. Change the name `Export...` to `Import Backup` and click **Next**.

11. Click on the pencil icon next to each package name and enter a new target name if necessary. For example, add a `_original` suffix to the existing name. Then click **OK**.
12. After you rename the target package names for all packages, select all blue folders and click **Next** to continue.
13. Accept all default values.
14. Click **Finish** and then select **Run**.
15. Check for the details of this import and click **OK**.
16. Click **Refresh** to view the status of the import.
17. Click **Close** after the import is complete.

Results

Two sets of packages appear in the Public Folders tab. For example, one with a `7.0` suffix (for the newer version) and one with a `_original` (or whatever you entered during the backup/restore procedure) suffix which contains your old reports. Due to changes in the data model, the reports in the old packages may not run and need to be upgraded. Your portal tabs now point to the current version of the portal pages.

Accessing MySQL using the command-line interface

In addition to accessing Data Warehouse data elements through the report authoring tools, you can obtain access to Data Warehouse data elements directly by connecting as a MySQL user. You might want to connect as a MySQL user to use the data elements in your own applications.

About this task

There are many ways to connect. The following steps show one way.

When accessing MySQL, connect to the MySQL database on the machine where Data Warehouse is installed. The MySQL port is 3306 by default; however, you can change it during installation. The user name and password is `dwhuser/netapp123`.

Steps

1. On the machine where Data Warehouse is installed, open a command-line window.
2. Access the MySQL directory in the OnCommand Insight directory.
3. Type the following user name and password: `mysql -udwhuser -pnetapp123`

The following is displayed, depending on where Data Warehouse is installed:

```
c:\Program Files\SANscreen\mysql\bin> mysql -udwhuser -pnetapp123
```

```
Welcome to the MySQL monitor. Commands end with ; or \g.  
Your MySQL connection id is 882  
Server version: 5.1.28-rc-community MySQL Community Server (GPL)
```

```
Type 'help;' or '\h' for help. Type '\c' to clear the buffer.
```

4. Show the Data Warehouse databases: `show databases;`

The following is displayed:

```
mysql> show databases;  
+-----+  
| Database |  
+-----+  
| information_schema |  
| dwh_capacity |  
| dwh_capacity_efficiency |  
| dwh_fs_util |  
| dwh_inventory |  
| dwh_performance |  
| dwh_ports |  
+-----+
```

Troubleshooting Data Warehouse

You can do various tasks related to troubleshooting Data Warehouse.

- Use OnCommand Insight ASUP.
- View OnCommand Insight logs.
- Resolve issues related to upgrades and business entities.
- Resolve issues related to the consolidation of multiple OnCommand Insight servers.

You can consolidate multiple OnCommand Insight servers into the same Data Warehouse database. Many configurations may report the same object from multiple connectors (that is, the same switch exists in two OnCommand Insight instances). In such cases, Data Warehouse consolidates the multiple objects into one (a primary connector is chosen and the object's data will be taken from that connector only).

The storage administrator can use the Troubleshooting page to solve problems related to consolidation issues.

Issue resolution with ASUP

You can send ASUP logs to technical support for assistance in troubleshooting. ASUP for Data Warehouse is configured to run automatically. In the Data Warehouse Portal, you

can disable the automatic send process, choose to include a backup of the Data Warehouse database, or initiate a transmittal to ASUP.

The information in the logs is forwarded to technical support by using HTTPS protocol. No data is forwarded using ASUP unless you first configure it on the Insight Server.

Data Warehouse sends the logs to the OnCommand Insight Server that is the first connector listed in the Data Warehouse Portal Connectors page. The automatic process sends the following files:

- Data Warehouse logs, which includes the following:
 - boot.log (including backups)
 - dwh.log (including backups such as dwh.log.1)
 - dhw_troubleshoot.log
 - dwh_upgrade.log (including backups)
 - WildFly.log (including backups)
 - ldap.log (including backups)
 - SQL dump of the Data Warehouse management database
 - mysql: my.cnf, .err and slow query logs
 - full innodb status

- Cognos logs, which include the following:

- cognos-logs.zip

Contains the Cognos log files from the <install>\cognos\c10_64\logs directory. It also contains the logs generated by Cognos as well as the OnCommand InsightAP.log file that contains all logging from users logging in to and out of OnCommand Insight reporting.

- DailyBackup.zip

Contains the backup of the reporting artifacts in the Public Folders. The contents of My Folders is not included in this.

- cognos_version_site_name_content_store.zip

Contains a full backup of the Cognos Content Store.

You can generate a troubleshooting report manually. The Troubleshooting Report .zip file contains the following Data Warehouse information:

- boot.log (including backups)
- dwh.log (including backups such as dwh.log.1)
- dwh_upgrade.log (including backups)
- wildfly.log (including backups)
- ldap.log (including backups)
- dump files in c:\Program Files\SANscreen\wildfly\standalone\log\dwh\
- SQL dump of the Data Warehouse management database

- mysql: my.cnf, .err and slow query logs
- full innodb status



ASUP does not automatically send a backup of the OnCommand Insight database to technical support.

Disabling automatic ASUP transmissions

All NetApp products are equipped with automated capabilities to provide the best possible support to troubleshoot issues that occur in your environment. ASUP periodically sends predefined, specific, information to Customer Support. By default, ASUP is enabled for Data Warehouse; however, you can disable it if you no longer want the information sent.

Steps

1. From the navigation pane on the left, click **Troubleshooting**.
2. Click **Disable** to prevent ASUP from sending a daily report.

A message displays saying ASUP is disabled.

Including a backup of the Data Warehouse database

By default, ASUP sends only the Data Warehouse log files to technical support for assistance in troubleshooting; however, you can also choose to include a backup of the Data Warehouse database and select the type of data that is sent.

Steps

1. Log in to the Data Warehouse portal at `https://hostname/dwh`, where `hostname` is the name of the system where OnCommand Insight Data Warehouse is installed.
2. From the navigation pane on the left, click **Troubleshooting**.
3. To specify that ASUP should include a backup of the Data Warehouse database, click the **Include DWH Database Backup** list and select one of the following options for the type of data that the backup should include:
 - All (including Performance)
 - All Except Performance
 - Inventory Only
4. Click **Update**.

Sending Insight logs to ASUP

You can send ASUP logs to technical support for assistance in troubleshooting. ASUP for Data Warehouse is configured to run automatically. In the Data Warehouse portal, you can disable the automatic send process, choose to include a backup of the Data Warehouse database, or initiate a transmittal to ASUP. When you request an ASUP report, the report request appears as a job in the Data Warehouse portal Jobs page.

About this task

The job is managed by the job queue similar to the processing of other jobs. If an ASUP job is in a Pending or Running state already, an error message appears indicating that the ASUP report request cannot be added to the job request, because the job queue contains pending or running requests.

Steps

1. Log in to the Data Warehouse portal at `https://hostname/dwh`, where `hostname` is the name of the system where OnCommand Insight Data Warehouse is installed.
2. From the navigation pane on the left, click **Troubleshooting**.
3. In the **OnCommand Insight ASUP** section of the **Troubleshooting** page, click **Download DWH Troubleshooting Report** to retrieve the troubleshooting report.
4. To send the report to the OnCommand Insight Server listed as the first connector in the Data Warehouse Portal **Connectors** page, click **Send Now**.

Viewing OnCommand Insight logs

You can view various Data Warehouse and Cognos logs in OnCommand Insight.

About this task

You can examine troubleshooting and status information in Cognos and Data Warehouse log files.

Steps

1. Log in to the Data Warehouse portal at `https://hostname/dwh`, where `hostname` is the name of the system where OnCommand Insight Data Warehouse is installed.
2. In the navigation pane on the left, click **Troubleshooting**.
3. In the **Logs** section, click **Log Files**.

The following log files are displayed:

dwh.log	
	Lists the status of Data Warehouse jobs
wildfly.log	
	Provides information about the WildFly application server
dwh_upgrade log	
	Provides information about the upgrade on Data Warehouse
ldap.log	
	Logs messages related to LDAP authentication

dwh_troubleshoot.log
Logs messages that can help troubleshooting DWH problems
sansscreenap.log
Provides information about connection to the server, authentication and access to the Cognos repository, and information about other processes
cognosserver.log
Cognos log

4. Click on the name of the log file you want to view.

Multiple server chassis consolidation issues

You can view the connectors that report on hosts and adapters and SAN switches and storage arrays. You can also see the various connectors that report on an object and identify the primary connector, which is the connector that was chosen for the object.

Viewing hosts and adapters consolidation issues

The reported data for hosts and their associated adapters is derived from the Inventory data mart.

Steps

1. Log in to the Data Warehouse Portal at <https://hostname/dwh>, where `hostname` is the name of the system where OnCommand Insight Data Warehouse is installed.
2. In the navigation pane to the left, click **Troubleshooting**.
3. In the **Chassis Consolidation** section, click **Hosts and Adapters**.



The configuration shown in this example is not a valid configuration. Principal and Available connectors on localhost suggest that the Insight server and DWH are both installed on the same server. The intent of this example is to familiarize you with the consolidation table.

Hosts and Adapters Consolidation

Host GUID	Host Name	Host IP	Adapter GUID	Adapter WWN	Principal Connector	Available Connectors	Insight ID	Insight Change Time
288	Agassi	192.1.168.71			localhost (1)	localhost (1)	9927	11/18/10 1:36 PM
			576	40:A0:00:00:00:00:84	localhost (1)	localhost (1)	9928	11/18/10 1:36 PM
			577	40:A0:00:00:00:00:85	localhost (1)	localhost (1)	9930	11/18/10 1:36 PM
305	AI_Host1	192.1.168.88			localhost (1)	localhost (1)	12254	11/18/10 1:38 PM
			597	40:A0:00:00:00:00:01:05	localhost (1)	localhost (1)	12255	11/18/10 1:38 PM
306	AI_Host2	192.1.168.89			localhost (1)	localhost (1)	12257	11/18/10 1:38 PM
			598	40:A0:00:00:00:00:01:06	localhost (1)	localhost (1)	12258	11/18/10 1:38 PM
307	AI_Host3	192.1.168.90			localhost (1)	localhost (1)	12260	11/18/10 1:38 PM

For all hosts and adapters there is a row for each connector that reports on them, as well as the Primary Connector from which the host and adapter are taken. For hosts and adapters only, a host that is reported by one connector may have its adapters reported by a different connector.

You can also see the OnCommand Insight change time of a host/adapter for each connector. Using this parameter, you can discover when an update has occurred in OnCommand Insight for the host/adapter and when the same host/adapter has been updated in other OnCommand Insight servers.

- Optionally, filter data in this view by typing a portion of the text and clicking **Filter**. To clear the filter, delete the text in the **Filter** box and click **Filter**. You can filter by host name, host IP, adapter WWN, or OnCommand Insight object ID.

The filter is case sensitive.

- Review the following data:

- **Host GUID**

Global Unique Identifier for this type of consolidated device (hosts)

- **Host Name**

Name of the consolidated host as it appears in the data warehouse

- **Host IP**

IP address of the consolidated host

- **Adapter GUID**

Global Unique identifier for the host adapter

- **Adapter WWN**

WWN of the host adapter

- **Principal Connector**

Name of the OnCommand Insight connector that was the actual source of the data

- **Available Connectors**

All OnCommand Insight connectors where the consolidated host / adapter reside

- **Insight ID**

OnCommand Insight ID of the consolidated host/adapter for the relevant reporting connector

- **Insight Change Time**

When an update has occurred in OnCommand Insight for the host/adapter and when the same host/adapter has been updated in other OnCommand Insight servers

6. To obtain detail about the connector, click on the connector.

You can see the following information for the connector:

- Host name
- The last time a Data Warehouse job was run on that connector
- The last time a change was received from that connector
- The version of the OnCommand Insight server pointed to by that connector

Viewing storage arrays consolidation issues

The reported data for storage arrays is derived from the Inventory data mart. For all storage arrays, there is a row for each connector that reports on them, as well as the Primary Connector from which each array is taken.

Steps

1. Log in to the Data Warehouse Portal at <https://hostname/dwh>, where `hostname` is the name of the system where OnCommand Insight Data Warehouse is installed.
2. From the navigation pane on the left, click **Troubleshooting**.
3. In the **Chassis Consolidation** section, click **SAN Storage Arrays**.
4. Optionally, to filter data in this view, type a portion of the text in the Filter box and click **Filter**. To clear the filter, delete the text in the Filter box and click **Filter**. You can filter by storage name, storage IP, vendor

model, or OnCommand Insight object ID.

The filter is case sensitive.

5. Review the following data:

- **GUID**

Global Unique Identifier for this type of consolidated device (storage array)

- **Name**

Name of the consolidated storage array as it appears in the Data Warehouse

- **IP**

IP address of the consolidated storage array

- **Vendor and Model**

Name of the vendor who sells the consolidated storage array and the manufacturer's model number

- **Principal Connector**

Name of the OnCommand Insight connector that was the actual source of the data

- **Available Connectors**

All OnCommand Insight connectors where the consolidated storage array resides

- **Insight ID**

ID of the consolidated storage array on the OnCommand Insight chassis where the Principal Connector resides

- **Insight Change Time**

When an update has occurred in OnCommand Insight for the storage array and when the same storage array has been updated in other OnCommand Insight servers

Viewing switches consolidation issues

The reported data for switches is derived from the Inventory data mart. For all switches, there is a row for each connector that reports on them, as well as the Primary Connector from which each switch is taken.

Steps

1. Log in to the Data Warehouse Portal at <https://hostname/dwh>, where `hostname` is the name of the system where OnCommand Insight Data Warehouse is installed.
2. From the navigation pane on the left, click **Troubleshooting**.
3. In the **Chassis Consolidation** section, click **SAN Switches**.
4. Optionally, filter data in this view by typing a portion of the text and clicking **Filter**. To clear the filter, clear the Filter box and click **Filter**. You can filter by switch name, switch IP, vendor model, or OnCommand

Insight object ID.

The filter is case sensitive.

5. Review the following data:

- **GUID**

Global Unique Identifier for this type of consolidated device (storage array)

- **Name**

Name of the consolidated storage array as it appears in the data warehouse

- **IP**

IP address of the consolidated storage array

- **Vendor and Model**

Name of the vendor who sells the consolidated storage array and the manufacturer's model number

- **WWN**

WWN for the consolidation switch

- **Principal Connector**

Name of the OnCommand Insight connector that was the actual source of the data

- **Available Connectors**

All OnCommand Insight connectors where the consolidated storage array resides

- **Insight ID**

ID of the consolidated storage array on the OnCommand Insight chassis where the Principal Connector resides

- **Insight Change Time**

When an update has occurred in OnCommand Insight for the storage array and when the same storage array has been updated in other OnCommand Insight servers

Resolving multiple server annotation consolidation issues

The Annotation Consolidation view in the Data Warehouse Troubleshooting view displays a table that contains all the available Annotation Types and the Object Types to which they can be applied.

About this task

The consolidation of annotation values is based on the value of the Annotation Type. A storage array could have two different tier values, each coming from a different connector. Thus, if in one connector there is a tier defined by the name gold and in a second connector a tier is defined with the name goldy, this information

appears in Data Warehouse as two separate tiers.

Because some Annotation Types allow assignment of multiple annotation values to the same object, Data Warehouse allows objects (for example, “host”) to have multiple annotation values assigned to them (for example, “data center 1” and “data center 2” could be assigned to the same host).

Tier annotation on volumes functions somewhat differently from the general annotation tables. Potentially, there could be a very large number of volumes in the environment and displaying all of them in the Data Warehouse would affect the usability of the information. Therefore, the Annotations Consolidation view displays only the volumes that have multiple tier values assigned to them, and the storage containing each such volume.

Steps

- 1. Log in to the Data Warehouse Portal at `https://hostname/dwh`, where `hostname` is the name of the system where OnCommand Insight Data Warehouse is installed.
- 2. From the navigation pane on the left, click **Troubleshooting**.
- 3. In the **Annotation Consolidation** section, click **Show** in the row for the object.

The following shows an example of the annotations for `Data_Center`:

Troubleshooting Annotations Consolidation

Annotation Type: Data_Center

Object Type: Host

Filter

Host GUID	Host Name	Host Natural Key	Data_Center Value	Connector
305	AI_Host1	192.1.168.88	New York	localhost (1)
306	AI_Host2	192.1.168.89	New York	localhost (1)
307	AI_Host3	192.1.168.90	New York	localhost (1)

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