



Technical Report

Using the OnCommand Insight Data Source CLI

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Abstract

This technical report describes the use of the OnCommand[®] Insight Data Source CLI, introduced in OnCommand Insight 6.4. The Data Source CLI provides a flexible command line interface that can be used as an alternative to the OnCommand Insight user interface to add, remove, or modify OnCommand Insight data sources.

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Why We Created the Data Source CLI

Some OnCommand Insight (OCI) customers maintain thousands of data sources. These customers often make changes to the assets in their environment that affect OCI, and they need to be able to add, remove, or modify data sources in a more flexible manner than is available using the OCI user interface data source wizard.

As an example, with the recent addition of support for N-port virtualized switches, many customers need to add dozens or even hundreds of new but similar data sources. Although this task can be accomplished using the data source wizard, it is inefficient and time consuming, particularly if the new data sources are identical to the others with the exception of one or two attributes, such as their name or IP address.

Further, the data source wizard does not support the modification of all attributes for an existing data source. Instead, customers who wish to use the wizard to change a single, uneditable attribute for many data sources need to stop each data source, remove it, and then add back the data source with the new settings.

As you will see in this technical report, the OnCommand Insight Data Source CLI mitigates these management inefficiencies by providing a command line tool that can be used to easily and repetitively add, modify, or remove data sources from the command line or even leverage a script to automate these tasks.

1 Using the Data Source CLI

The Data Source CLI has two modes of operation: interactive and scripted. Using the interactive mode, users open the Data Source CLI tool with administrator credentials and then enter discrete commands to add, modify, or remove a specific data source. With the scripted mode, users configure a script or batch file with multiple command strings for the purpose of adding, modifying, or removing multiple data sources. In scripted mode, each command string must call the Data Source CLI tool and must also include the administrator credentials. Optionally, scripted mode commands can be entered directly at the command line (outside of a batch file) one at a time, in order to add, modify, or remove a specific data source.

1.1 Accessing the Data Source CLI

To access the Data Source CLI, log in to the OnCommand Insight server, open a command prompt as an administrator, and navigate to <install_directory>\SANscreen\acq\bin\acqcli:

```
C:\> cd "Program Files\SANscreen\acq\bin\acqcli"
```

1.2 Data Source CLI Commands

Whether you use the interactive or the scripted mode, the available CLI commands are identical. They are provided in Table 1.

Table 1) Available Data Source CLI commands.

Command	Description
add [-au=<auname>] -type=<type> -name=<dsname> [-<propname1>=<propvalue1> ...]	Add a new data source to the system. Note: 'au' stands for acquisition unit; the system will default to the local acquisition unit if none is entered in the command string.
update -id=<dsid> -<attribute>=<value> [...]	Update a data source attribute value. Note: 'id' is a unique identifier for each data source.
rm -id=<dsid>	Delete a data source with the given id. Note: The data source does not have to be stopped in order to be removed.
ls	Lists all data sources currently in the system. Note: Use this command to find the data source ids for existing data sources, which are required for several commands: 'update,' 'rm,' 'desc,' etc.
lstype	Lists all data source types available in the system. Note: Use this command to find the type identifiers for supported Insight data sources, which is required for the add command.
lsau	Lists all acquisition units currently in the system.
desc -id=<dsid>	Describe a data source with the given id (provides all details known).
export	Return the xml description of all data sources (provides all details known).
start -id=<dsid>	Start a data source with the given id.
stop -id=<dsid>	Stop a data source with the given id.
force -id=<dsid>	Force an immediate poll for a data source with the given id.
help ?	Shows usage help.
q quit	Exit.

1.3 Using the Interactive Mode

To open the Data Source CLI's interactive tool, enter the following command, passing the credentials for an OnCommand Insight account with administrative rights:

```
C:\Program Files\SANscreen\acq\bin\acqcli> acqcli_interactive.bat -  
user={username} -password={password}
```

```
Entering interactive mode...<type 'q' to exit>
```

To see the available commands, enter 'help' or '?':

```
>> ?
```

Note: The following display is abbreviated (see Table 1 for the full command syntax and descriptions).

```
add  
update  
rm  
ls  
lstype  
lsau  
desc  
export  
start  
stop  
force  
help | ?  
q | quit
```

To use the interactive mode, simply enter the desired command followed by its required arguments (if any). Use the `ls` command to display a list of data sources currently in the system, listed by their unique ID numbers:

```
>> ls
```

Note: The following display is abbreviated.

ID	Name	State	Acq Unit	IP	Type
1	brocade_1	running	local	192.168.0.197	58
2	brocade_2	running	local	192.168.0.198	58
3	cluster_1	running	local	192.168.0.200	93
4	cluster_2	running	local	192.168.0.201	93

Each supported Insight data source type, such as Brocade HTTP, EMC Symmetrix, or the NetApp® clustered Data ONTAP® operating system, is distinguished by a unique number; when adding new data sources, this data source type must be specified. To see the list of supported data sources and their type identifiers, use the `lstype` command:

```
>> lstype
```

Note: The following display is abbreviated.

Type	Vendor	Model
39	Brocade	Brocade SNMP Firmware 4.2x
39	Brocade	Brocade SNMP Firmware 4.4x
58	Brocade	Brocade HTTP
57	Cisco	All models using SNMP
.		
.		
.		
93	NetApp	NetApp clustered Data ONTAP
92	EMC	EMC VNX (Unified Block and File)
101	EMC	EMC Atmos

To add a NetApp clustered Data ONTAP data source, use the `add` command with the appropriate attributes:

```
>> add -type=93 -name=cluster_3 -foundation.ip=192.168.0.202 -
foundation.user=storage_admin -foundation.connectionType=HTTPS -
foundation.port=443 -foundation.poll=60 -storageperformance.poll=300

Data source (with ID 5) added.
```

To modify an existing data source, use the `update` command with the data source ID and provide the new value(s) for the argument(s) that need to be modified. The following example updates the IP address for `cluster_3` (known as ID 5):

```
>> update -id=5 -foundation.ip=192.168.0.205

Data source updated.
```

To remove an existing data source, use the `rm` command along with its data source ID. The following example removes `cluster_3` (which was added above):

```
>> rm -id=5

Data source deleted.
```

Note: The `rm` command will not display a confirmation prompt and the data source does not have to be stopped in order to be removed.

1.4 Using the Scripted Mode

To use the scripted mode, create a batch file and preface each Data Source CLI command with `acqcli.bat` in order to run the CLI tool at execution time. You also need to provide the user name and password for an OnCommand Insight account with administrative rights. Here is an example of adding two new clustered Data ONTAP systems (which have a data source type of 93) using scripted mode in a batch file:

```
acqcli.bat add -type=93 -name=cluster_4 -foundation.ip=192.168.0.203 -
foundation.user=storage_admin -foundation.connectionType=HTTPS -foundation.port=443 -
foundation.poll=60 -storageperformance.poll=300 -user=admin -password=admin123
acqcli.bat add -type=93 -name=cluster_5 -foundation.ip=192.168.0.204 -
foundation.user=storage_admin -foundation.connectionType=HTTPS -foundation.port=443 -
foundation.poll=60 -storageperformance.poll=300 -user=admin -password=admin123
```

Alternatively, scripted mode may also be used at the command line by entering the desired CLI commands one at a time:

```
C:\Program Files\SANscreen\acq\bin\acqcli> acqcli.bat ls -user=admin -password=admin123
```

Note: The following display is abbreviated.

ID	Name	State	Acq Unit	IP	Type
1	brocade_1	running	local	192.168.0.197	58
2	brocade_2	running	local	192.168.0.198	58
3	cluster_1	running	local	192.168.0.200	93
4	cluster_2	running	local	192.168.0.201	93
5	cluster_4	running	local	192.168.0.203	93
6	cluster_5	running	local	192.168.0.204	93

1.5 Finding the Required Attributes to Add a Data Source

The CLI's `add` command requires a wide variety of attributes and values based on the type of data source being added. The easiest method to determine the required data source arguments is to use a truncated version of the `add` command, forcing the system to respond with the appropriate usage and required attributes. For example, here is how you would find the required attributes for an EMC VNX array, which has a data source type of 92:

```
>> add -type=92 -name=vnx_1
```

```
Missing required attribute "foundation.ip"
```

```
Data source type 92 requires the following attributes.
```

```
foundation.poll(integer): Poll interval (min):
```

```
foundation.ip(string): VNX IP:
```

```
foundation.user(string): VNX User Name:
```

```
foundation.celerra.ssh.timeout(integer): VNX SSH process wait timeout (sec):
```

```
storageperformance.poll(integer): Application Insight poll interval (up to 3600 seconds):
```

Additionally, if a desired data source type already exists within Insight, the `desc -id=<dsid>` command can be used to identify all of its attributes. This list will include both required attributes and those that have default values (which are not needed on the command line).

Version History

Version	Date	Document Version History
Version 1.0	September 2013	Initial version

Refer to the [Interoperability Matrix Tool \(IMT\)](#) on the NetApp Support site to validate that the exact product and feature versions described in this document are supported for your specific environment. The NetApp IMT defines the product components and versions that can be used to construct configurations that are supported by NetApp. Specific results depend on each customer's installation in accordance with published specifications.

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