



# Cisco MDS Fabric Switches data collector

## Cloud Insights

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# Table of Contents

- Cisco MDS Fabric Switches data collector..... 1
  - Terminology..... 1
  - Requirements ..... 1
  - Configuration..... 1
  - Advanced configuration..... 2
  - Troubleshooting..... 3

# Cisco MDS Fabric Switches data collector

Cloud Insights uses the Cisco MDS Fabric Switches data collector to discover inventory for Cisco MDS Fabric Switches as well as a variety of Cisco Nexus FCoE switches on which the FC service is enabled.

Additionally, you can discover many models of Cisco devices running in NPV mode with this data collector.

## Terminology

Cloud Insights acquires the following inventory information from the Cisco FC Switch data collector. For each asset type acquired by Cloud Insights, the most common terminology used for this asset is shown. When viewing or troubleshooting this data collector, keep the following terminology in mind:

| Field                         | Description       |
|-------------------------------|-------------------|
| Switch                        | Switch            |
| Port                          | Port              |
| VSAN                          | Fabric            |
| Zone                          | Zone              |
| Logical Switch                | Logical Switch    |
| Name Server Entry             | Name Server Entry |
| Inter-VSAN Routing (IVR) Zone | IVR Zone          |

Note: These are common terminology mappings only and might not represent every case for this data collector.

## Requirements

- An IP address of one switch in the fabric or individual switches
- Chassis discovery, to enable fabric discovery
- If using SNMP V2, read-only community string
- Port 161 is used to access the device

## Configuration

| Field                 | Description  |
|-----------------------|--|
| Cisco Switch IP       | IP address or fully-qualified domain name of the switch                                |
| SNMP Version          | Select V1, V2, or V3. V2 or later is required for performance acquisition.             |
| SNMP Community String | SNMP read-only community string used to access the switch (not applicable for SNMP v3) |
| User Name             | User name for the switch (SNMP v3 only)  |
| Password              | Password used for the switch (SNMPv3 only)   |

## Advanced configuration

| Field                            | Description   |
|----------------------------------|---|
| Inventory Poll Interval (min)    | Interval between inventory polls (default 40 minutes)   |
| SNMP Auth Protocol               | SNMP authentication protocol (SNMPv3 only)  |
| SNMP Privacy Protocol            | SNMP privacy protocol (SNMPv3 only)   |
| SNMP Privacy Password            | SNMP Privacy Password   |
| SNMP Retries                     | Number of SNMP retry attempts   |
| SNMP Timeout (ms)                | SNMP timeout (default 5000 ms)  |
| Enable Trapping                  | Select to enable trapping. If you enable trapping, you must also activate SNMP notifications. |
| Minimum Time Between Traps (sec) | Minimum time between acquisition attempts triggered by traps (default 10 seconds)             |
| Discover All Fabric Switches     | Select to discover all switches in the fabric   |
| Excluded Devices                 | Comma-separated list of device IPs to exclude from polling                                    |
| Included Devices                 | Comma-separated list of device IPs to include in polling                                      |
| Check Device Type                | Select to accept only those devices that explicitly advertise themselves as Cisco devices     |

| Field                            | Description   |
|----------------------------------|---|
| First Alias Type                 | <p>Provide a first preference for resolution of the alias. Choose from the following:</p> <p><b>Device Alias</b><br/>This is a user-friendly name for a port WWN (pWWN) that can be used in all configuration commands, as required. All switches in the Cisco MDS 9000 Family support Distributed Device Alias Services (device aliases).</p> <p><b>None</b><br/>Do not report any alias.</p> <p><b>Port Description</b><br/>A description to help identify the port in a list of ports.</p> <p><b>Zone Alias (all)</b><br/>A user-friendly name for a port that can be used only for the active configuration. This is the default.</p> |
| Second Alias Type                | Provide a second preference for resolution of the alias   |
| Third Alias Type                 | Provide a third preference for resolution of the alias  |
| Enable SANTap Proxy Mode Support | Select if your Cisco switch is using SANTap in proxy mode. If you are using EMC RecoverPoint, then you are probably using SANTap.   |
| Performance Poll Interval (sec)  | Interval between performance polls (default 300 seconds)  |

## Troubleshooting

Some things to try if you encounter problems with this data collector:

### Inventory

| <b>Problem:</b>  | <b>Try this:</b>   |
|--|--|
| Error: Failed to discover chassis - no switches have been discovered | <ul style="list-style-type: none"> <li>• Ping the device with the IP configured</li> <li>• Login to the device using Cisco Device Manager GUI</li> <li>• Login to the device using CLI</li> <li>• Try to run SNMP walk</li> </ul>  |
| Error: Device is not a Cisco MDS switch                              | <ul style="list-style-type: none"> <li>• Make sure the data source IP configured for the device is correct</li> <li>• Login to the device using Cisco Device Manager GUI</li> <li>• Login to the device using CLI</li> </ul>   |
| Error: Cloud Insights is not able to obtain the switch's WWN.        | This may not be a FC or FCoE switch, and as such may not be supported. Make sure the IP/FQDN configured in the datasource is truly a FC/FCoE switch.   |
| Error: Found more than one nodes logged into NPV switch port         | Disable direct acquisition of the NPV switch   |
| Error: Could not connect to the switch                               | <ul style="list-style-type: none"> <li>• Make sure the device is UP</li> <li>• Check the IP address and listening port</li> <li>• Ping the device</li> <li>• Login to the device using Cisco Device Manager GUI</li> <li>• Login to the device using CLI</li> <li>• Run SNMP walk</li> </ul> |

## Performance

| <b>Problem:</b>   | <b>Try this:</b>  |
|---|---|
| Error: Performance acquisition not supported by SNMP v1 | <ul style="list-style-type: none"> <li>• Edit Data Source and disable Switch Performance</li> <li>• Modify Data Source and switch configuration to use SNMP v2 or higher</li> </ul> |

Additional information may be found from the [Support](#) page or in the [Data Collector Support Matrix](#).

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