



Cisco MDS Fabric Switches data collector

Cloud Insights

Dave Grace , Tony Lavoie
June 05, 2020

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)

Field	Description
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
First Alias Type	<p>Provide a first preference for resolution of the alias. Choose from the following:</p> <p>Device Alais 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>None Do not report any alias.</p> <p>Port Description A description to help identify the port in a list of ports.</p> <p>Zone Alias (all) A user-friendly name for a port that can be used only for the active configuration. This is the default.</p>

Field	Description
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

Problem:	Try this:
Error: Failed to discover chassis - no switches have been discovered	<ul style="list-style-type: none"> • Ping the device with the IP configured • Login to the device using Cisco Device Manager GUI • Login to the device using CLI • Try to run SNMP walk
Error: Device is not a Cisco MDS switch	<ul style="list-style-type: none"> • Make sure the data source IP configured for the device is correct • Login to the device using Cisco Device Manager GUI • Login to the device using CLI
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"> • Make sure the device is UP • Check the IP address and listening port • Ping the device • Login to the device using Cisco Device Manager GUI • Login to the device using CLI • Run SNMP walk

Performance

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

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

Copyright Information

Copyright © 2021 NetApp, Inc. All rights reserved. Printed in the U.S. No part of this document covered by copyright may be reproduced in any form or by any means-graphic, electronic, or mechanical, including photocopying, recording, taping, or storage in an electronic retrieval system-without prior written permission of the copyright owner.

Software derived from copyrighted NetApp material is subject to the following license and disclaimer:

THIS SOFTWARE IS PROVIDED BY NETAPP "AS IS" AND WITHOUT ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE HEREBY DISCLAIMED. IN NO EVENT SHALL NETAPP BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

NetApp reserves the right to change any products described herein at any time, and without notice. NetApp assumes no responsibility or liability arising from the use of products described herein, except as expressly agreed to in writing by NetApp. The use or purchase of this product does not convey a license under any patent rights, trademark rights, or any other intellectual property rights of NetApp.

The product described in this manual may be protected by one or more U.S. patents, foreign patents, or pending applications.

RESTRICTED RIGHTS LEGEND: Use, duplication, or disclosure by the government is subject to restrictions as set forth in subparagraph (c)(1)(ii) of the Rights in Technical Data and Computer Software clause at DFARS 252.277-7103 (October 1988) and FAR 52-227-19 (June 1987).

Trademark Information

NETAPP, the NETAPP logo, and the marks listed at <http://www.netapp.com/TM> are trademarks of NetApp, Inc. Other company and product names may be trademarks of their respective owners.