

# Configuring Layer 2 SNMP Discovery

The Layer 2 Discovery option enables a collector to gather spanning-tree, VLAN, and port address information of layer 2 switches, hubs, and hosts.

Specifically, Lumeta collects Layer 2 information from RFC 4188 and from various vendor-specific MIBs, as follows:

Cisco	RFC 4188
<ul style="list-style-type: none"><li>ciscoCdpMIB 1.3.6.1.4.1.9.9.23</li><li>ciscoVlanMembershipMIB 1.3.6.1.4.1.9.9.68</li><li>ciscoVtpMIB 1.3.6.1.4.1.9.9.46</li></ul>	dot1dBridge 1.3.6.1.2.1.17

Extreme	Foundry	Cabletron/Citron/Enterasys	Synoptics (Bay Networks/Avaya)
1.3.6.1.4.1.1916	1.3.6.1.4.1.1991	1.3.6.1.4.1.52	1.3.6.1.4.1.45

One of the key elements of this process is the querying of SNMP related to the Spanning Tree Protocol (STP) topology. Additional information is collected for VLANs and MAC addresses.

If configured, during Network Discovery, Lumeta uses SNMP to query routers and switches for information to identify the Layer 2 (switched) infrastructure, to compliment the Layer 3 (routed) infrastructure discovered. This provides an additional context for the enterprise, including VLAN information and host topology visualization.

In a network with SNMP-managed layer 2 switches and proper SNMP credentials configured, this topology will be a very accurate representation of the network. When there are unmanaged layer 2 hubs, or when Lumeta cannot get accurate information from managed switches, Lumeta assumes that there is an unmanaged hub when there is more than one layer 2 device on a particular switch port. Multiple unmanaged hubs that are connected to each other may appear on the map as a single hub since Lumeta cannot determine their existence.

Layer 2 Discovery works with Network Discovery (ND), Device Profiling (DP) or both, using SNMP to seed the Layer 2 scan engine. Therefore it is required that at least one of these types of discovery be selected along with L2D, and that at least one SNMP polling option is selected and configured in ND and/or DP. Note that DP will also require selecting Host Discovery (HD).

Be sure to configure SNMP querying in the scan configuration to avoid an error message like this: "Cannot perform Layer 2 Discovery without SNMP Querying in either ND or DD. Select Abort in the Scan Queue, correct the problem by adding SNMP polling to the selected ND and/or DP scan configuration, and restart the scan."

## Configuring Layer 2 Discovery

Support for collecting Layer 2 data has been added and may be configured from any page in Lumeta as described here:

1. Click **Settings > Zones**.
2. Select the available zone in which you would like to collect Layer 2 data.
3. In the SNMP tab for that collector, click **Edit** and enable the Collect Layer 2 Data option.
4. Layer 2 data collection begins immediately.