CHAPTER 1
OID Info Tool

The content of this document describes the functionality of OID Info tool.

OID Info Tool overview

The OID Info tool enables you to view the list of OIDs that are used to discover and monitor devices such as Host, Router, Switch etc. The OID information helps identify faults in the configuration of the SNMP agent of the device. The OID Info tool displays the list of OIDs and their SNMP values for a device. It fetches the value of the OIDs from the device and compares the SNMP values against the values in the topology.

The OID Info tool is introduced in IP Manager and SAM Console versions 9.2 and will not be available in the older versions. The OIDs can be viewed through the command line or, through the **OID Info** option in the Domain Manager Administration Console.

The **OID Info** option will not be enabled if –

- The system object is discovered in ICMP only mode.
- The device does not have a SysOID.
- The device does not have an associated SNMPAgent object in the topology.
- An older version of IP is attached to the Domain Manager Administration Console.

The OIDs are classified into two types – Discovery and Monitoring. In case of Discovery type, only the static OIDs are displayed. The tool displays the name of the discovery probe and the associated discovery driver.

In case of Monitoring type, the name of the instrumentation class and the device component associated with it is displayed.

Configure OID Info tool

You must configure the **oidInfo.conf** file to view the OID information of a device through the command line interface. The file is located under ‹BASEDIR›/conf/discovery.

To edit the **oidInfo.conf** file, go to the ‹BASEDIR›/smarts/bin folder of your installation and type the following command:

```
./sm_edit conf/discovery/oidInfo.conf file
```

You must specify the following information for each device in the oidInfo.conf file:

- **Class** – The system class such as Router, Switch, Host etc.
- **Instance** – The name of the instance of the system class specified. The value of this should be the same as the value of the Name attribute of the system object in the IP topology. Other attribute values such as the DisplayName or the IP Address of the system object are not valid.
- **Type** – The type of class. You can enter one of the following values:
  - Discovery –To view the OIDs of classes that are used for discovery only
  - Monitoring – To view the OIDs of classes that are used for monitoring only
  - All – To view the OIDs of classes that are used for both discovery and monitoring

  The value for this parameter is case sensitive and will assume a default value of *Monitoring* if values apart from those specified above are used.

- **Entity** – This parameter is applicable when the value of the *Type* parameter is **Monitoring**. The value of this parameter will be ignored if the *Type* is **Discovery**. By default the value of this parameter is "*". This parameter is used to filter out device components that will be displayed in the output. The values will need to have the class names of the component entities of a device such as Card, Interface, Port, Fan, Memory etc.

  For example,

  - To view the OIDs related to monitoring of Ports, Interfaces and Memory the pattern can be specified as, **Port|Interface|Memory.**
  - To view the OIDs for all entities except Ports and Interfaces the pattern can be specified as, **~Port|~Interface**.

Additionally, you can also specify the polling interval and the snmp timeout for the following parameters:

- pollingInterval – The interval in seconds at which values need to be polled for all the OIDs. The default value is 120.
- snmpTimeout – The timeout in seconds for SNMP requests from the tool. The default value is 500.

The output for each entry configured in the oidInfo.conf is saved in a separate text file whose name is of the format ‹ClassName_InstanceName.txt›. The file is located at ‹BASEDIR›/logs/oidInfoLogs. If the file already exists it will be renamed and a timestamp will be appended to the filename.

To display OIDs in the command line

Go to the ‹BASEDIR›/smarts/bin folder of IP Manager 9.2 and type the following command to run the sm_oidInfo.pl script:

```
./sm_perl sm_oidInfo.pl <options>
```

The output from running the OID Info tool is saved in the sm_oidInfo.log file located at ‹BASEDIR›/logs/oidInfoLogs. A log file is generated everytime you run this tool. If a log file already exists from the previous run, it will be renamed and a timestamp will be appended to the file name.

OID Info tool allows you to view the OID information of devices in other installations of IP Manager 9.2, from your current installation.

The following procedure can be performed if you want to view the OID information of devices discovered in a different installation of IP Manager 9.2:

1. Edit the oidInfo.conf file of your current IP 9.2 installation at ‹BASEDIR›/conf/discovery to provide the information of devices discovered in a different installation.
2. Go to the ‹BASEDIR›/smarts/bin folder of your current IP 9.2 installation and type the following command to run the OID Info tool:

   ```
   ./sm_perl sm_oidInfo.pl --server=<server_name> --broker=<host:port>
   ```

   Provide the server name and broker information of any other IP 9.2 installation whose device information is specified in the oidInfo.conf file.

sm_oidInfo modes of operation

The sm_oidInfo has the following command-line options:

- --server – Specifies the name of the IP domain manager where the devices to be used for running the tool are discovered. This option is mandatory since the tool needs to connect to the server to retrieve the required configuration and OID data from the server.
- --broker – Specifies the broker at which the IP domain manager is registered. If not specified the tool will connect to the broker defined by the SM_BROKER or SM_BROKER_DEFAULT environment variables. If no broker can be determined the tool will report an error and exit.
- --displayValues – To gather the SNMP values of the OIDs.
- --compareValues – To compare the OID's topology and SNMP values.
- --poll – To poll and display, or compare the OID values *n* times. The maximum value of *n* is 100.
- --silent
- --help

When the tool is run by not specifying any *‹options›*, the output will contain the list of OIDs for only those devices that are configured in the oidInfo.conf.

To display OIDs in the console

1. Attach the IP domain manager to the Domain Manager Administration Console.
2. Expand the tree on the left pane and navigate to the device.
3. Right-click the device and select **OID Info**.

The **OID Info** window displays the following columns:

- **Type** –The type of class, Discovery or Monitoring.
- **Component** – Contains the Probe Name such as Containment, Performance in case of Discovery type, and Entity name such as Interface, Port in case of Monitoring type.

  NOTICE

  The Bridge-probe component is only available for Discovery type classes, Switch and Bridge.

- **Entity** – Contains the Driver Name in case of Discovery type, and the Instrumentation class name in case of Monitoring type.
- **OID** – The SNMP OID associated with the device.
- **Description** – Description of the SNMP OID or discovery probe if available.
  - For Monitoring type, this field contains the attribute name of the SNMP OID or discovery probe.
  - For Discovery type, due to the limitations of IP Manager, this field is either empty or, contains a generic description of the SNMP OID or discovery probe.

NOTICE

Monitoring classes of devices that donot have an OID associated with it, will not be listed in the OID Info window.

The **OID Info** option is disabled for the following object types since these objects donot have a system OID or an SNMP agent associated with them:

- AuthenticationServer
- BladeEnclosureManager
- VSSChassis
- WirelessClient