

Unique Device Identifier Retrieval

The Unique Device Identifier Retrieval feature provides the ability to retrieve and display the Unique Device Identifier (UDI) information from any Cisco product that has electronically stored such identity information.

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Prerequisites for Unique Device Identifier Retrieval

In order to use UDI retrieval, the Cisco product in use must be UDI-enabled. A UDI-enabled Cisco product supports five required Entity MIB objects. The five Entity MIB v2 (RFC-2737) objects are as follows:

- entPhysicalName
- entPhysicalDescr
- entPhysicalModelName
- entPhysicalHardwareRev
- entPhysicalSerialNum

Although the **show inventory** command may be available, using that command on devices that are not UDI-enabled will likely produce no output.

Information About Unique Device Identifier Retrieval

Unique Device Identifier Overview

Each identifiable product is an entity, as defined by the Entity MIB (RFC-2737) and its supporting documents. Some entities, such as a chassis, will have subentities like slots. A Fast Ethernet switch might be a member of a superentity like a stack. Most Cisco entities that are orderable products will leave the factory with an

assigned UDI. The UDI information is printed on a label that is affixed to the physical hardware device, and it is also stored electronically on the device in order to facilitate remote retrieval.

A UDI consists of the following elements:

- Product identifier (PID)
- Version identifier (VID)
- Serial number (SN)

The PID is the name by which the product can be ordered; it has been historically called the "Product Name" or "Part Number." This is the identifier that one would use to order an exact replacement part.

The VID is the version of the product. Whenever a product has been revised, the VID will be incremented. The VID is incremented according to a rigorous process derived from Telcordia GR-209-CORE, an industry guideline that governs product change notices.

The SN is the vendor-unique serialization of the product. Each manufactured product will carry a unique serial number assigned at the factory, which cannot be changed in the field. This is the means by which to identify an individual, specific instance of a product.

Benefits of the Unique Device Identifier Retrieval Feature

- Identifies individual Cisco products in your networks.
- Reduces operating expenses for asset management through simple, cross-platform, consistent identification of Cisco products.
- Identifies PIDs for replaceable products.
- Facilitates discovery of products subject to recall or revision.
- Automates Cisco product inventory (capital and asset management).
- Provides a mechanism to determine the entitlement level of a Cisco product for repair and replacement service.

How to Retrieve the Unique Device Identifier

Retrieving the Unique Device Identifier

Perform this task to retrieve and display identification information for a Cisco product.

SUMMARY STEPS

1. **enable**
2. **show inventory** [**raw**] [*entity*]

DETAILED STEPS

Procedure

Step 1 **enable**

Enters privileged EXEC mode. Enter your password if prompted.

Example:

```
Router> enable
```

Step 2 **show inventory** [**raw**] [*entity*]

Enter the **show inventory** command to retrieve and display information about all of the Cisco products installed in the networking device that are assigned a PID, VID, and SN. If a Cisco entity is not assigned a PID, that entity is not retrieved or displayed.

Example:

```
Router# show inventory
NAME: "Chassis", DESCR: "12008/GRP chassis"
PID: GSR8/40           ,  VID: V01,  SN: 63915640
NAME: "slot 0", DESCR: "GRP"
PID: GRP-B             ,  VID: V01,  SN: CAB021300R5
NAME: "slot 1", DESCR: "4 port ATM OC3 multimode"
PID: 4OC3/ATM-MM-SC    ,  VID: V01,  SN: CAB04036GT1
NAME: "slot 3", DESCR: "4 port 0C3 POS multimode"
PID: LC-4OC3/POS-MM    ,  VID: V01,  SN: CAB014900GU
NAME: "slot 5", DESCR: "1 port Gigabit Ethernet"
PID: GE-GBIC-SC-B      ,  VID: V01,  SN: CAB034251NX
NAME: "slot 7", DESCR: "GRP"
PID: GRP-B             ,  VID: V01,  SN: CAB0428AN4O
NAME: "slot 16", DESCR: "GSR 12008 Clock Scheduler Card"
PID: GSR8-CSC/ALRM     ,  VID: V01,  SN: CAB0429AUYH
NAME: "sfslot 1", DESCR: "GSR 12008 Switch Fabric Card"
PID: GSR8-SFC          ,  VID: V01,  SN: CAB0428ALOS
NAME: "sfslot 2", DESCR: "GSR 12008 Switch Fabric Card"
PID: GSR8-SFC          ,  VID: V01,  SN: CAB0429AU0M
NAME: "sfslot 3", DESCR: "GSR 12008 Switch Fabric Card"
PID: GSR8-SFC          ,  VID: V01,  SN: CAB0429ARD7
NAME: "PSslot 1", DESCR: "GSR 12008 AC Power Supply"
PID: FWR-GSR8-AC-B     ,  VID: V01,  SN: CAB041999CW
```

Enter the **show inventory**command with an *entity* argument value to display the UDI information for a specific type of Cisco entity installed in the networking device. In this example, a list of Cisco entities that match the module RO argument string is displayed.

Example:

```
Router# show inventory "module RO"
NAME: ''module R0'', DESCR: ''Cisco ASR1000 Route Processor 2''
PID: ASR1000-RP2 ,  VID: V01,  SN: JAE13041JEX
```

Note
The **raw** keyword option is primarily intended for troubleshooting problems with the **show inventory** command itself.

Example:

```
Router# show inventory raw
NAME: "Chassis", DESCR: "12008/GRP chassis"
PID:                   ,  VID: V01,  SN: 63915640
NAME: "slot 0", DESCR: "GRP"
PID:                   ,  VID: V01,  SN: CAB021300R5
NAME: "slot 1", DESCR: "4 port ATM OC3 multimode"
PID: 4OC3/ATM-MM-SC    ,  VID: V01,  SN: CAB04036GT1
NAME: "slot 3", DESCR: "4 port 0C3 POS multimode"
PID: LC-4OC3/POS-MM    ,  VID: V01,  SN: CAB014900GU
```

Troubleshooting Tips

Commands requiring a delimiting character (the *d* argument) are used throughout this chapter. Any character can be used as the delimiting character, but we recommend the use of the quote sign ("), because this character is unlikely to be needed within the message itself. Other commonly used delimiting characters include the percent sign (%) or the forward slash (/), but because these characters have meanings within certain Cisco IOS commands, they are not recommended. For example, to set the vacant message to This terminal is idle you would enter the command **vacant-message"Thisterminalisidle"**.

Configuration Examples for Unique Device Identifier Retrieval

There are no configuration examples for the UDI Retrieval feature. For sample display output from the **show inventory** command, see the Retrieving the Unique Device Identifier section.

Additional References

This section provides references related to the basic configuration of a Cisco networking device.

Related Documents

Related Topic	Document Title
Cisco IOS commands	Cisco IOS Master Commands List, All Releases
Configuration fundamentals commands	*Cisco IOS Configuration Fundamentals Command Reference*
Configuring a networking device for the first time using the Cisco IOS software feature AutoInstall.	Using AutoInstall to Remotely Configure Cisco Networking Devices module in *Cisco IOS Configuration Fundamentals Configuration Guide*
Configuring a networking device using Cisco IOS Setup mode	Using Setup Mode to Configure a Cisco Networking Device module in *Cisco IOS Configuration Fundamentals Configuration Guide*

Technical Assistance

Description	Link
The Cisco Support website provides extensive online resources, including documentation and tools for troubleshooting and resolving technical issues with Cisco products and technologies. To receive security and technical information about your products, you can subscribe to various services, such as the Product Alert Tool (accessed from Field Notices), the Cisco Technical Services Newsletter, and Really Simple Syndication (RSS) Feeds. Access to most tools on the Cisco Support website requires a Cisco.com user ID and password.	http://www.cisco.com/cisco/web/support/index.html

Feature Information for Unique Device Identifier Retrieval

The following table provides release information about the feature or features described in this module. This table lists only the software release that introduced support for a given feature in a given software release train. Unless noted otherwise, subsequent releases of that software release train also support that feature.

Use Cisco Feature Navigator to find information about platform support and Cisco software image support. To access Cisco Feature Navigator, go to www.cisco.com/go/cfn. An account on Cisco.com is not required.

Table 1: Feature Information for Unique Device Identifier Retrieval

Feature Name	Releases	Feature Information
Unique Device Identifier Retrieval	Cisco IOS XE Release 2.1	This feature was introduced.