



## Unique Device Identifier Retrieval

---

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

### Finding Feature Information

Your software release may not support all the features documented in this module. For the latest feature information and caveats, see the release notes for your platform and software release. To find information about the features documented in this module, and to see a list of the releases in which each feature is supported, see the Feature Information Table at the end of this document.

Use Cisco Feature Navigator to find information about platform support and Cisco software image support. To access Cisco Feature Navigator, go to <http://tools.cisco.com/ITDIT/CFN/>. An account on <http://www.cisco.com/> is not required.

### Contents

- [Hardware Compatibility Matrix for Cisco cBR Series Routers, page 1](#)
- [Unique Device Identifier Overview, page 2](#)
- [Benefits of the Unique Device Identifier Retrieval Feature, page 3](#)
- [Retrieving the Unique Device Identifier, page 3](#)
- [Troubleshooting Tips, page 6](#)
- [Additional References, page 6](#)
- [Feature Information for Unique Device Identifier Retrieval, page 7](#)

## Hardware Compatibility Matrix for Cisco cBR Series Routers



### Note

---

The hardware components introduced in a given Cisco IOS-XE Release are supported in all subsequent releases unless otherwise specified.

---

**Table 1: Hardware Compatibility Matrix for the Cisco cBR Series Routers**

Cisco CMTS Platform	Processor Engine	Interface Cards
Cisco cBR-8 Converged Broadband Router	<p><b>Cisco IOS-XE Release 3.15.0S and Later Releases</b></p> <p>Cisco cBR-8 Supervisor:</p> <ul style="list-style-type: none"> <li>• PID—CBR-CCAP-SUP-160G</li> <li>• PID—CBR-CCAP-SUP-60G<sup>1</sup></li> <li>• PID—CBR-SUP-8X10G-PIC</li> </ul>	<p><b>Cisco IOS-XE Release 3.15.0S and Later Releases</b></p> <p>Cisco cBR-8 CCAP Line Cards:</p> <ul style="list-style-type: none"> <li>• PID—CBR-LC-8D30-16U30</li> <li>• PID—CBR-LC-8D31-16U30</li> <li>• PID—CBR-RF-PIC</li> <li>• PID—CBR-RF-PROT-PIC</li> </ul> <p>Cisco cBR-8 Downstream PHY Modules:</p> <ul style="list-style-type: none"> <li>• PID—CBR-D30-DS-MOD</li> <li>• PID—CBR-D31-DS-MOD</li> </ul> <p>Cisco cBR-8 Upstream PHY Modules:</p> <ul style="list-style-type: none"> <li>• PID—CBR-D30-US-MOD</li> </ul>

<sup>1</sup> Effective with Cisco IOS-XE Release 3.17.0S, CBR-CCAP-SUP-60G supports 8 cable line cards. The total traffic rate is limited to 60Gbps, the total number of downstream service flow is limited to 72268, and downstream unicast low-latency flow does not count against the limits.

## 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 sub-entities like slots. An Ethernet switch might be a member of a super-entity like a stack. Most Cisco entities that can be ordered 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.

### Product Item Descriptor for Cable Products

For information on the Product Item Descriptor (PID), see the product hardware installation guide available on Cisco.com.

## Retrieving the Unique Device Identifier

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:

- 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.

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.

```
Router# show inventory
```

```
NAME: "Chassis", DESCR: "Cisco cBR-8 CCAP Chassis"  
PID: CBR-8-CCAP-CHASS , VID: V01, SN: FXS1739Q0PR
```

```
NAME: "clc 3", DESCR: "Cisco cBR CCAP Line Card"  
PID: CBR-CCAP-LC-40G , VID: V01, SN: TEST1234567
```

```
NAME: "Cable PHY Module", DESCR: "CLC Downstream PHY Module 3/0"  
PID: CBR-D30-DS-MOD , VID: V01, SN: CAT1725E1BZ
```

```

NAME: "Cable PHY Module", DESCR: "CLC Downstream PHY Module 3/1"
PID: CBR-D30-DS-MOD , VID: V01, SN: CAT1725E1AT

NAME: "Cable PHY Module", DESCR: "CLC Upstream PHY Module 3/2"
PID: CBR-D30-US-MOD , VID: V01, SN: CAT1717E0FF

NAME: "sup 1", DESCR: "Cisco cBR CCAP Supervisor Card"
PID: CBR-CCAP-SUP-60G , VID: V01, SN: CAT1824E0MT

NAME: "harddisk 5/1", DESCR: "Hard Disk"
PID: UGB88RTB100HE3-BCU-DID, VID: , SN: 11000066829

NAME: "sup-pic 5/1", DESCR: "Cisco cBR CCAP Supervisor Card PIC"
PID: CBR-SUP-8X10G-PIC , VID: V01, SN: CAT1720E0F4

NAME: "SFP+ module 5/1/0", DESCR: "iNSI xcvr"
PID: SFP+ 10GBASE-SR , VID: A , SN: FNS172720X6

NAME: "SFP+ module 5/1/1", DESCR: "iNSI xcvr"
PID: SFP+ 10GBASE-LR , VID: A , SN: UGT085P

NAME: "SFP+ module 5/1/2", DESCR: "iNSI xcvr"
PID: SFP+ 10GBASE-LR , VID: A , SN: UGT087Z

NAME: "SFP+ module 5/1/3", DESCR: "iNSI xcvr"
PID: SFP+ 10GBASE-SR , VID: G4.1, SN: AVD1729A38T

NAME: "SFP+ module 5/1/7", DESCR: "iNSI xcvr"
PID: 10GE ZR , VID: A , SN: FNS11300AUH

NAME: "Power Supply Module 0", DESCR: "Cisco cBR CCAP AC Power Supply"
PID: PWR-3KW-AC-V2 , VID: V02, SN: DTM17370345

NAME: "Power Supply Module 2", DESCR: "Cisco cBR CCAP AC Power Supply"
PID: PWR-3KW-AC-V2 , VID: V02, SN: DTM173702KF

```

For diagnostic purposes, the **show inventory** command can be used with the **raw** keyword to display every RFC 2737 entity including those without a PID, UDI, or other physical identification.

**Note**

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

```

Router# show inventory raw

NAME: "Chassis", DESCR: "Cisco cBR-8 CCAP Chassis"
PID: CBR-8-CCAP-CHASS , VID: V01, SN: FXS1739Q0PR

NAME: "slot 0/0", DESCR: "Chassis Slot"
PID: , VID: , SN:

NAME: "slot 0/1", DESCR: "Chassis Slot"
PID: , VID: , SN:

NAME: "slot 1/0", DESCR: "Chassis Slot"
PID: , VID: , SN:

NAME: "slot 1/1", DESCR: "Chassis Slot"
PID: , VID: , SN:

NAME: "slot 2/0", DESCR: "Chassis Slot"
PID: , VID: , SN:

NAME: "slot 2/1", DESCR: "Chassis Slot"
PID: , VID: , SN:

NAME: "slot 3/0", DESCR: "Chassis Slot"

```

```
PID:           , VID:           , SN:

NAME: "clc 3", DESCR: "Cisco cBR CCAP Line Card"
PID: CBR-CCAP-LC-40G   , VID: V01, SN: TEST1234567

NAME: "12_CUR: Sens 3/0", DESCR: "12_CUR: Sens"
PID:           , VID:           , SN:

NAME: "12_CUR: Vin 3/1", DESCR: "12_CUR: Vin"
PID:           , VID:           , SN:

NAME: "12_CUR: ADin 3/2", DESCR: "12_CUR: ADin"
PID:           , VID:           , SN:

NAME: "G0_CUR: Sens 3/3", DESCR: "G0_CUR: Sens"
PID:           , VID:           , SN:

NAME: "G0_CUR: Vin 3/4", DESCR: "G0_CUR: Vin"
PID:           , VID:           , SN:

NAME: "G0_CUR: ADin 3/5", DESCR: "G0_CUR: ADin"
PID:           , VID:           , SN:

NAME: "G1_CUR: Sens 3/6", DESCR: "G1_CUR: Sens"
PID:           , VID:           , SN:

NAME: "G1_CUR: Vin 3/7", DESCR: "G1_CUR: Vin"
PID:           , VID:           , SN:

NAME: "G1_CUR: ADin 3/8", DESCR: "G1_CUR: ADin"
PID:           , VID:           , SN:

NAME: "LB_CUR: Sens 3/9", DESCR: "LB_CUR: Sens"
PID:           , VID:           , SN:

NAME: "LB_CUR: Vin 3/10", DESCR: "LB_CUR: Vin"
PID:           , VID:           , SN:

NAME: "LB_CUR: ADin 3/11", DESCR: "LB_CUR: ADin"
PID:           , VID:           , SN:

NAME: "Temp: CAPRICA 3/12", DESCR: "Temp: CAPRICA"
PID:           , VID:           , SN:

NAME: "Temp: BASESTAR 3/13", DESCR: "Temp: BASESTAR"
PID:           , VID:           , SN:

NAME: "Temp: RAIDER 3/14", DESCR: "Temp: RAIDER"
PID:           , VID:           , SN:

NAME: "Temp: CPU 3/15", DESCR: "Temp: CPU"
PID:           , VID:           , SN:

NAME: "Temp: INLET 3/16", DESCR: "Temp: INLET"
PID:           , VID:           , SN:

NAME: "Temp: OUTLET 3/17", DESCR: "Temp: OUTLET"
PID:           , VID:           , SN:

NAME: "Temp: DIGITAL 3/18", DESCR: "Temp: DIGITAL"
PID:           , VID:           , SN:

NAME: "Temp: UPX 3/19", DESCR: "Temp: UPX"
PID:           , VID:           , SN:
```

## Troubleshooting Tips

If any of the Cisco products do not have an assigned PID, the output may display incorrect PIDs and the VID and SN elements may be missing, as in the following example.

```
NAME: "POS3/0/0", DESCR: "Skystone 4302 Sonet Framer"
```

```
PID: FastEthernet, VID: , SN:
```

```
NAME: "Serial1/0", DESCR: "M4T"
```

```
PID: M4T , VID: , SN:
```

In the sample output, the PID is exactly the same as the product description. The UDI is designed for use with new Cisco products that have a PID assigned. UDI information on older Cisco products is not always reliable.

## Additional References

### Related Documents

Related Topic	Document Title
Information about managing configuration files	<a href="#">Cisco IOS Configuration Fundamentals Configuration Guide</a>
Commands for showing interface statistics	<a href="#">Cisco IOS Interface Command Reference</a>

### Standards and RFCs

Standard/RFC	Title
RFC 2737	<i>Entity MIB (Version 2)</i>

### MIBs

MIB	MIBs Link
CISCO-ENTITY-ASSET-MIB	To locate and download MIBs for selected platforms, Cisco IOS releases, and feature sets, use Cisco MIB Locator found at the following URL:  <a href="http://www.cisco.com/go/mibs">http://www.cisco.com/go/mibs</a>

**Technical Assistance**

Description	Link
<p>The Cisco Support website provides extensive online resources, including documentation and tools for troubleshooting and resolving technical issues with Cisco products and technologies.</p> <p>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.</p> <p>Access to most tools on the Cisco Support website requires a Cisco.com user ID and password.</p>	<a href="http://www.cisco.com/cisco/web/support/index.html">http://www.cisco.com/cisco/web/support/index.html</a>

## Feature Information for Unique Device Identifier Retrieval

Use Cisco Feature Navigator to find information about platform support and software image support. Cisco Feature Navigator enables you to determine which software images support a specific software release, feature set, or platform. To access Cisco Feature Navigator, go to <http://tools.cisco.com/ITDIT/CFN/>. An account on <http://www.cisco.com/> is not required.

**Note**

The below 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.

**Table 2: Feature Information for Unique Device Identifier Retrieval**

Feature Name	Releases	Feature Information
Unique Device Identifier Retrieval	Cisco IOS-XE Release 3.15.0S	This feature was introduced on the Cisco cBR Series Converged Broadband Routers.

