Release Notes for Cisco Catalyst PON Series Optical Network Terminal

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This document describes the hardware and software requirements, features, and bugs for the Cisco Catalyst PON Series Optical Network Terminal (ONT).

Note The documentation set for this product strives to use bias-free language. For purposes of this documentation set, bias-free is defined as language that does not imply discrimination based on age, disability, gender, racial identity, ethnic identity, sexual orientation, socioeconomic status, and intersectionality. Exceptions may be present in the documentation due to language that is hardcoded in the user interfaces of the product software, language used based on standards documentation, or language that is used by a referenced third-party product.

Introduction to Cisco Catalyst PON Series Optical Network Terminal

Cisco Catalyst PON Series switches are built to address the emerging demand of bandwidth for enterprise and residential users. A network designed using the Cisco Catalyst PON Series switches in the campus replaces a three-tier architecture with a two-tier fiber optic network. It eliminates the active access and distribution Ethernet switches with passive optical devices.

An Optical Network Terminal (ONT), also referred to as an Optical Network Unit (ONU), is an integrated PON access device to which the end users are connected. It provides high performance access services for end users, Small Office Small Home (SOHO) users, small companies, cable TV (CATV), audio and video transmission, and networks where shared high-speed internet access is required.

What's New in Cisco Catalyst PON Series ONT, Release v1.1.3.18

There are no new features in this release.

Resolved Caveats in ONT Release 1.1.3.18

What's New in Cisco Catalyst PON Series ONT, Release v1.1.3.17

Feature	Description	Applicable Models
Support for Single Family Unit (SFU) mode	Beginning with this release, the CGP-ONT-4PVC and CGP-ONT-4PV models can operate in the SFU mode too. You can switch to SFU mode by navigating to **Administration** > **Reboot** on the Web Management interface and selecting the **Change to SFU** option. For more information, see *Cisco Catalyst PON Series Switches ONT Configuration Guide* **Note** Downgrade of the ONT firmware release from v1.1.3.17 to an earlier one is not supported on CGP-ONT-4PVC and CGP-ONT-4PV models. This is because a new device type is introduced on these models to support the SFU mode. For more information, see CSCwa10507.	CGP-ONT-4PVC CGP-ONT-4PV
Local switch option on SFU ONT	Hosts behind the same ONT can now communicate with each other. To enable local switching on the ONT and disable port isolation, use the **local switch** command. For more information on this command, see *Cisco Catalyst PON Series Switches OLT Command Reference*	CGP-ONT-4P CGP-ONT-4PV CGP-ONT-4PVC

What's New in Cisco Catalyst PON Series ONT, Release v1.1.3.13

Feature	Description	Applicable Models
IPv6 features	Introduced support for IPv6 features like the following: • IPv6 bridge forwarding • IPv6 IPoE WAN • DHCPv6, SLAAC • PPPoEv6 client • Prefix Delegation • LAN DHCPv6 Server • Router Advertisement • MLD, Static routing	CGP-ONT-4P CGP-ONT-4PV CGP-ONT-4PVC CGP-ONT-4TVCW
802.1x Setting page	Optimised 802.1x Settings	CGP-ONT-4P CGP-ONT-4PV CGP-ONT-4PVC CGP-ONT-4TVCW
Support for MAC Authentication Bypass (MAB)	MAB is an authentication method that grants network access to specific MAC addresses regardless of 802.1X capability or credentials.	CGP-ONT-4P CGP-ONT-4PV CGP-ONT-4PVC CGP-ONT-4TVCW
Wireless	Configure a Wireless Local Area Network (WLAN) for the ONT device.	CGP-ONT-4TVCW
USB Interface	Support to disable/enable the USB Interface	CGP-ONT-4P CGP-ONT-4PV CGP-ONT-4PVC CGP-ONT-4TVCW

What's New in Cisco Catalyst PON Series ONT, Release v 1.1.2.27

Feature	Description	Applicable Models
Booting Process	Device booting process optimized.	CGP-ONT-4P CGP-ONT-4PV CGP-ONT-4PVC

What's New in Cisco Catalyst PON Series ONT, Release v1.1.1.14

Feature	Description
IPv6 Bridge Forwarding	Beginning with this release, IPv6 bridge forwarding is supported on the CGP-ONT-1P model.
IPv6 address	Beginning with this release, CGP-ONT-1P model supports IPv6 addressing for Web Graphic User Interface (WebUI) management.

Supported Hardware

Cisco Catalyst PON Series Optical Network Terminal

The following table lists the Cisco Catalyst PON Series ONT models that are supported:

Table 1: Cisco Catalyst PON Series ONT Models

ONT Model	Description
CGP-ONT-4P	ONT with 1xPON port, 4x1 GE 10/100/1000 PoE ports, and 1xUSB Type A port.
CGP-ONT-4PV	ONT with 1xPON port, 4x1 GE 10/100/1000 PoE ports, 2xForeign Exchange Station (FXS) ports, and 1xUSB Type A port.
CGP-ONT-4PVC	ONT with 1xPON port, 4x1 GE 10/100/1000 PoE ports, 2xFXS ports, 1xUSB Type A, and 1xCoaxial Cable Television (CATV) port.
CGP-ONT-1P	ONT with 1xPON port, 1 GE 10/100/1000 PoE+ port
CGP-ONT-4TVCW	ONT with 1xPON port, 4x1 GE 10/100/1000 Data ports, 2xFXS ports, 1xUSB Type A, 1xCoaxial Cable Television (CATV) port, and 2.4G/5GHz WiFi support.

Features Supported on the ONT Models

The following table is a detailed list of features supported on the ONT models.

Feature	CGP-ONT-4P	CGP-ONT-4PV	CGP-ONT-4PVC	CGP-ONT-4TVCW	CGP-ONT-1P
Address Resolution Protocol (ARP)	Y	Y	Y	Y	Y
Cable TV Network support	N	N	Y	Y	N
DHCP Server	Y	Y	Y	Y	N
Diagnostic functions like Ping, Trace IP and configuration of system time and zone	Y	Y	Y	Y	N
Dynamic Domain Name System (DNS)	Y	Y	Y	Y	N
Firewall	Y	Y	Y	Y	N
IPv6	Y	Y	Y	Y	Y
Local Area Nework (LAN) port	Y	Y	Y	Y	Y
Loop Detection	Y	Y	Y	Y	N
MAC address ageing	Y	Y	Y	Y	Y
MLD Proxy	Y	Y	Y	Y	N
Power over Ethernet Port	Y	Y	Y	N	Y
Port Security (IEEE 802.1x basedauthentication)	Y	Y	Y	Y	N
QoS Traffic Limit	Y	Y	Y	Y	N
Routing	Y	Y	Y	Y	N
Router Advertisement	Y	Y	Y	Y	N
Spanning Tree Protocol	Y	Y	Y	Y	N
Universal Plug and Play	Y	Y	Y	Y	N
USB Interface	Y	Y	Y	Y	N
Voice over IP (VoIP)	N	Y	Y	Y	N
Wide Area Network (WAN) connection port	Y	Y	Y	Y	N

Feature	CGP-ONT-4P	CGP-ONT-4PV	CGP-ONT-4PVC	CGP-ONT-4TVCW	CGP-ONT-1P
Wireless Local Area Network (WLAN)	N	N	N	Y	N

Upgrading the Switch Software

This section covers the various aspects of installing and upgrading the software on Cisco Catalyst PON Series ONT.

Finding Software Version on ONT

The Cisco Catalyst PON Manager provides a Configuration Management window to view the hardware and software releases of a device in the network.

You can use the **show ont version interface gpon** {**interface_list** | **all**} command to see the software version that is running on your Cisco Catalyst PON Series ONT.

Supported Software Releases

Table 2: Supported and Recommended Software Releases for Cisco Catalyst PON Series ONT

ONT Model	Supported Release	Recommended Release
CGP-ONT-1P	1.1.1.9 1.1.1.14	1.1.1.14
CGP-ONT-4P	1.1.2.25 1.1.2.26 1.1.2.27 1.1.3.13 1.1.3.17 1.1.3.18	1.1.3.18
CGP-ONT-4PV	1.1.2.25 1.1.2.26 1.1.2.27 1.1.3.13 1.1.3.17 1.1.3.18	1.1.3.18

ONT Model	Supported Release	Recommended Release
CGP-ONT-4PVC	1.1.2.25 1.1.2.26 1.1.2.27 1.1.3.13 1.1.3.17 1.1.3.18	1.1.3.18
CGP-ONT-4TVCW	1.1.2.25 1.1.2.26 1.1.2.27 1.1.3.13 1.1.3.17 1.1.3.18	1.1.3.18

Upgrading Software on a Cisco Catalyst PON Series ONT

Follow these steps to upgrade the software on a Cisco Catalyst PON Series ONT.

Note Do not power off the switch during the operation.

Procedure

Step 1 Download the Cisco Catalyst PON Series ONT software image (for example, CGP-ONT-4P-1.1.2.26.tar) to your local computer.

You can download the software image from the Cisco Software Download page.

Step 2 Open a web browser on your computer and access the ONT Web Management Interface.

The default ONT Web Management Interface is https://192.168.1.1.

You might need the administrator user name and password to log into the ONT.

Step 3 In the **ONT Configuration** window, navigate to **Administration** > **Firmware Upgrade**.

Step 4 Select the software image on the computer and click **Upgrade**.

Caveats

Caveats describe unexpected behavior in Cisco Catalyst PON Series Releases. Caveats listed as open in a prior release are carried forward to the next release as either open or resolved.

Cisco Bug Search Tool

Cisco Bug Search Tool (BST) is a gateway to the Cisco bug-tracking system, which maintains a comprehensive list of defects and vulnerabilities in Cisco products and software. The BST provides you with detailed defect information about your products and software.

To view the details of a caveat, click on the identifier.

Caveats in Cisco Catalyst PON Series ONT

This section describes the open and resolved issues in the releases of Cisco Catalyst PON Series ONT.

Resolved Caveats in ONT Release 1.1.3.18

Caveat ID Number	Description
CSCwd78609	Disabling the DHCP server doesn't take effect after rebooting the ONT. Applicable devices: CGP-ONT-4P, CGP-ONT-4PV, CGP-ONT-4PVC, CGP-ONT-4TVCW
CSCwd78692	LAN hosts traffic conflicted when ONT is in multi-bridge WAN mode. Applicable devices: CGP-ONT-4P, CGP-ONT-4PV, CGP-ONT-4PVC, CGP-ONT-4TVCW

Resolved Caveats in ONT Release 1.1.3.17

Caveat ID Number	Description
CSCvx99695	Traceroute with IPv6 address fails. Applicable devices: CGP-ONT-4P, CGP-ONT-4PV, CGP-ONT-4PVC, CGP-ONT-4TVCW
CSCvx99697	Internet WAN NAT function fails after performing a Save operation on the VoIP setting page. Applicable devices: CGP-ONT-4P, CGP-ONT-4PV, CGP-ONT-4PVC, CGP-ONT-4TVCW
CSCvx99701	IPv6 static routes are lost after reboot. Applicable devices: CGP-ONT-4P, CGP-ONT-4PV, CGP-ONT-4PVC, CGP-ONT-4TVCW

Caveat ID Number	Description
CSCvy00789	LAN DHCPv6 server in manual mode stops working when the WAN obtains PD. Applicable devices: CGP-ONT-4P, CGP-ONT-4PV, CGP-ONT-4PVC, CGP-ONT-4TVCW

Open Caveats in ONT Release 1.1.3.13

Caveat ID Number	Description
CSCvx99695	Traceroute with IPv6 address fails. Applicable devices: CGP-ONT-4P, CGP-ONT-4PV, CGP-ONT-4PVC
CSCvx99697	Internet WAN NAT function fails after performing a Save on the VoIP setting page. Applicable devices: CGP-ONT-4P, CGP-ONT-4PV, CGP-ONT-4PVC Workaround: Apply the Interent WAN setting once again or reboot the ONT.
CSCvx99701	IPv6 static routes are lost after reboot.
CSCvy00789	LAN DHCPv6 server in manual mode stops working when the WAN obtains PD. Workaround: When the ONT WAN requests PD, the LAN DHCPv6 server should work in auto mode to allocate the prefix.

Resolved Caveats in ONT Release 1.1.2.26

Caveat ID Number	Description
CSCvv37838	ONT: fail to restore configuration file from USB drive. Applicable devices: CGP-ONT-4P, CGP-ONT-4PV, CGP-ONT-4PVC.
CSCvv37841	ONT: system time is not updated after restart. Applicable devices: CGP-ONT-4P, CGP-ONT-4PV, CGP-ONT-4PVC.

Open Caveats in ONT Release 1.1.2.25

Caveat ID Number	Description
CSCvv37838	ONT: fail to restore configuration file from USB drive. Applicable devices: CGP-ONT-4P, CGP-ONT-4PV, CGP-ONT-4PVC.
CSCvv37841	ONT: system time is not updated after restart. Applicable devices: CGP-ONT-4P, CGP-ONT-4PV, CGP-ONT-4PVC.

Resolved Caveats in ONT Release 1.1.1.14

Caveat ID Number	Description
CSCvx90792	Sometimes the ONT device stays offline after modifying the line profile. Applicable devices: CGP-ONT-1P
CSCvx90786	Cannot forward IPv6 downstream Neighbor Solicitation. Applicable devices: CGP-ONT-1P

Open Caveats in ONT Release 1.1.1.9

Caveat ID Number	Description
CSCvx90792	Sometimes the ONT device stays offline after modifying the line profile. Applicable devices: CGP-ONT-1P
CSCvx90786	Cannot forward IPv6 downstrean Neighbor Solicitation. Applicable devices: CGP-ONT-1P

Troubleshooting

For the most up-to-date, detailed troubleshooting information, see the Cisco TAC website at this URL:

http://www.cisco.com/en/US/support/index.html

Go to **Product Support** and select your product from the list or enter the name of your product. Look under Troubleshoot and Alerts, to find information for the problem that you are experiencing.

Use this link to open a TAC case.

Related Documentation

We recommend that you read the following documents relating to Cisco Catalyst PON Series:

- *Cisco Catalyst PON Series Switches OLT Configuration Guide*

- *Cisco Catalyst PON Series Switches OLT Command Reference Guide*

- *Cisco Catalyst PON Series Switches Hardware Installation Guide*

- *Cisco Catalyst PON Series Switches ONT Configuration Guide*

- *Cisco Catalyst PON Manager Overview Guide*