

IPv6 Embedded Management Components

Cisco IPv6 embedded management components have IPv6-compliant operability in IPv6 and hybrid IPv6 and IPv4 networks. This document describes the following embedded management components: syslog, config logger, TCL, NETCONF, and the SOAP message format.

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Information About IPv6 Embedded Management Components

Syslog

The Cisco system message logging (syslog) process in IPv6 allows users to log syslog messages to external syslog servers and hosts with IPv6 addresses. This implementation allows user to specify an IPv4-based logging host (syslog server) by providing the host's IP address in IPv4 format (for example, 192.168.0.0) or IPv6 format (for example, 2001:DB8:A00:1::1/64).

Config Logger

Config logger tracks and reports configuration changes. Config logger supports two content types:

- Plain text--With plain-text format, the config logger reports configuration changes only.
- XML--The config logger uses XML to report the configuration change details (for example, what changed, who changed it, when changes were made, parser return code [PRC] values, and incremental NVGEN results).

TCL

Tool command language (TCL) is used in Cisco software for IPv6 to support features such as embedded syslog manager (ESM), embedded event manager (EEM), interactive voice response (IVR), and tclsh parser mode. TCL supports both initiating (client) and listening (server) sockets.

NETCONF

The Network Configuration Protocol (NETCONF) defines a mechanism through which a network device can be managed, configuration data information can be retrieved, and new configuration data can be uploaded and manipulated. NETCONF uses XML-based data encoding for the configuration data and protocol messages.

SOAP Message Format

Using the Service-Oriented Access Protocol (SOAP) provides a way to format the layout of Cisco Networking Services (CNS) messages in a consistent manner. SOAP is intended for exchanging structured information in a decentralized, distributed environment. SOAP uses XML technologies to define an extensible messaging framework that provides a message format that can be exchanged over a variety of underlying protocols.

Within the SOAP message structure, there is a security header that enables CNS notification messages to authenticate user credentials.

How to Configure IPv6 Embedded Management Components

Configuring Syslog over IPv6

SUMMARY STEPS

1. **enable**
2. **configure terminal**
3. **logging host** {{*ip-address* | *hostname*} | {**ipv6** *ipv6-address* | *hostname*}} [**transport** {**udp** [**port** *port-number*] | **tcp** [**port** *port-number*] [**audit**]}] [**xml** | **filtered** [**stream** *stream-id*]] [**alarm** [*severity*]]

DETAILED STEPS

Procedure

	Command or Action	Purpose
Step 1	**enable** **Example:** `Device> enable`	Enables privileged EXEC mode. • Enter your password if prompted.
Step 2	**configure terminal** **Example:** `Device# configure terminal`	Enters global configuration mode.
Step 3	**logging host** {{*ip-address* | *hostname*} | {**ipv6** *ipv6-address* | *hostname*}} [**transport** {**udp** [**port** *port-number*] | **tcp** [**port** *port-number*] [**audit**]}] [**xml** | **filtered** [**stream** *stream-id*]] [**alarm** [*severity*]]	Logs system messages and debug output to a remote host.

	Command or Action	Purpose
	Example: `Device(config)# logging host ipv6 AAAA:BBBB:CCCC:DDDD::FFFF`	

Configuration Examples for IPv6 Embedded Management Components

Example: Configuring Syslog over IPv6

```
Device(config)# logging host ipv6 AAAA:BBBB:CCCC:DDDD::FFFF transport tcp port 1470
```

Additional References for IPv6 Embedded Management Components

Related Documents

Related Topic	Document Title
IPv6 addressing and connectivity	*IPv6 Configuration Guide*
Cisco IOS commands	Cisco IOS Master Commands List, All Releases
IPv6 commands	Cisco IOS IPv6 Command Reference
Cisco IOS IPv6 features	Cisco_IOS_IPv6_Feature_Mapping

Standards and RFCs

Standard/RFC	Title
RFCs for IPv6	*IPv6 RFCs*

MIBs

MIB	MIBs Link
No new or modified MIBs are supported by this feature, and support for existing MIBs has not been modified by this feature.	To locate and download MIBs for selected platforms, Cisco IOS releases, and feature sets, use Cisco MIB Locator found at the following URL: http://www.cisco.com/go/mibs

Technical Assistance

Description	Link
The Cisco Support and Documentation website provides online resources to download documentation, software, and tools. Use these resources to install and configure the software and to troubleshoot and resolve technical issues with Cisco products and technologies. Access to most tools on the Cisco Support and Documentation website requires a Cisco.com user ID and password.	http://www.cisco.com/cisco/web/support/index.html

Feature Information for IPv6 Embedded Management Components

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 IPv6 Embedded Management Components

Feature Name	Releases	Feature Information
IPv6: Config Logger	12.2(33)SB 12.2(33)SRC 12.2(50)SG 12.2(50)SY 12.4(20)T 15.0(1)SY 15.0(2)SG Cisco IOS XE Release 2.1 3.2SG	IPv6 supports this feature. No commands were introduced or modified.

Feature Name	Releases	Feature Information
IPv6: NETCONF	12.2(33)SB 12.2(33)SRC 12.2(50)SG 12.2(50)SY 12.4(20)T 15.0(2)SG Cisco IOS XE Release 2.1 3.2SG	IPv6 supports this feature. No commands were introduced or modified.
IPv6 Support in SOAP	12.2(33)SB 12.2(33)SRC 12.2(50)SG 12.2(50)SY 12.4(20)T 15.0(2)SG Cisco IOS XE Release 2.1 3.2SG	IPv6 supports this feature. No commands were introduced or modified.
IPv6: TCL	12.2(33)SB 12.2(33)SRC 12.2(50)SG 12.2(50)SY 12.4(20)T 15.0(1)SY 15.0(2)SG Cisco IOS XE Release 2.1 3.2SG	IPv6 supports this feature. No commands were introduced or modified.

Feature Name	Releases	Feature Information
Syslog over IPv6	12.2(33)SB 12.2(33)SRC 12.2(33)SXI 12.2(44)SE 12.2(44)SG 12.4(4)T 15.0(2)SG Cisco IOS XE Release 2.1 3.2SG	The Cisco syslog process in IPv6 allows users to log syslog messages to external syslog servers and hosts with IPv6 addresses. The following command was introduced: **logging host**.