

Upgrade FPGA for Catalyst 8500 Series Edge Platforms

First Published: 2025-04-18

Americas Headquarters
Cisco Systems, Inc.
170 West Tasman Drive
San Jose, CA 95134-1706
USA
http://www.cisco.com
Tel: 408 526-4000
800 553-NETS (6387)
Fax: 408 527-0883

© Cisco Systems, Inc. All rights reserved.



CONTENTS

PREFACE

Preface v

Audience and Scope v

Feature Compatibility v

Document Conventions vi

Communications, Services, and Additional Information vii

Documentation Feedback viii

Troubleshooting viii

CHAPTER 1

Upgrade FPGA for C8500 Devices 1

Upgrade FPGA for C8500-20x6C 1



Preface

This preface describes the audience, organization, and conventions of this document. It also provides information on how to obtain other documentation.

This preface includes the following sections:

- Audience and Scope, on page v
- Feature Compatibility, on page v
- Document Conventions, on page vi
- Communications, Services, and Additional Information, on page vii
- Documentation Feedback, on page viii
- Troubleshooting, on page viii

Audience and Scope

This document is designed for the person who is responsible for configuring your Cisco Enterprise router. This document is intended primarily for the following audiences:

- Customers with technical networking background and experience.
- System administrators familiar with the fundamentals of router-based internetworking but who might not be familiar with Cisco IOS software.
- System administrators who are responsible for installing and configuring internetworking equipment, and who are familiar with Cisco IOS software.

Feature Compatibility

For more information about the Cisco IOS XE software, including features available on your device as described in the configuration guides, see the respective router documentation set.

To verify support for specific features, use the Cisco Feature Navigator tool. This tool enables you to determine the Cisco IOS XE software images that support a specific software release, feature set, or a platform.

Document Conventions

This documentation uses the following conventions:

Convention	Description
^ or **Ctrl**	The ^ and **Ctrl** symbols represent the Control key. For example, the key combination **^D** or **Ctrl-D** means hold down the **Control** key while you press the **D** key. Keys are indicated in capital letters but are not case sensitive.
string	A string is a nonquoted set of characters shown in italics. For example, when setting an SNMP community string to public, do not use quotation marks around the string or the string will include the quotation marks.

The command syntax descriptions use the following conventions:

Convention	Description
bold	Bold text indicates commands and keywords that you enter exactly as shown.
italics	Italic text indicates arguments for which you supply values.
[x]	Square brackets enclose an optional element (keyword or argument).
|	A vertical line indicates a choice within an optional or required set of keywords or arguments.
[x | y]	Square brackets enclosing keywords or arguments separated by a vertical line indicate an optional choice.
{x | y}	Braces enclosing keywords or arguments separated by a vertical line indicate a required choice.

Nested sets of square brackets or braces indicate optional or required choices within optional or required elements. For example, see the following table.

Convention	Description
[x {y | z}]	Braces and a vertical line within square brackets indicate a required choice within an optional element.

Examples use the following conventions:

Convention	Description
`screen`	Examples of information displayed on the screen are set in Courier font.
`bold screen`	Examples of text that you must enter are set in Courier bold font.
< >	Angle brackets enclose text that is not printed to the screen, such as passwords.
!	An exclamation point at the beginning of a line indicates a comment line. Exclamation points are also displayed by the Cisco IOS XE software for certain processes.
[ ]	Square brackets enclose default responses to system prompts.



Caution Means *reader be careful*. In this situation, you might do something that could result in equipment damage or loss of data.



Note Means *reader take note*. Notes contain helpful suggestions or references to materials that may not be contained in this manual.

Communications, Services, and Additional Information

- To receive timely, relevant information from Cisco, sign up at Cisco Profile Manager.
- To get the business results you're looking for with the technologies that matter, visit Cisco Services.
- To submit a service request, visit Cisco Support.
- To discover and browse secure, validated enterprise-class apps, products, solutions and services, visit Cisco DevNet.
- To obtain general networking, training, and certification titles, visit Cisco Press.
- To find warranty information for a specific product or product family, access Cisco Warranty Finder.

Cisco Bug Search Tool

Cisco Bug Search Tool (BST) is a web-based tool that acts as a gateway to the Cisco bug tracking system that maintains a comprehensive list of defects and vulnerabilities in Cisco products and software. BST provides you with detailed defect information about your products and software.

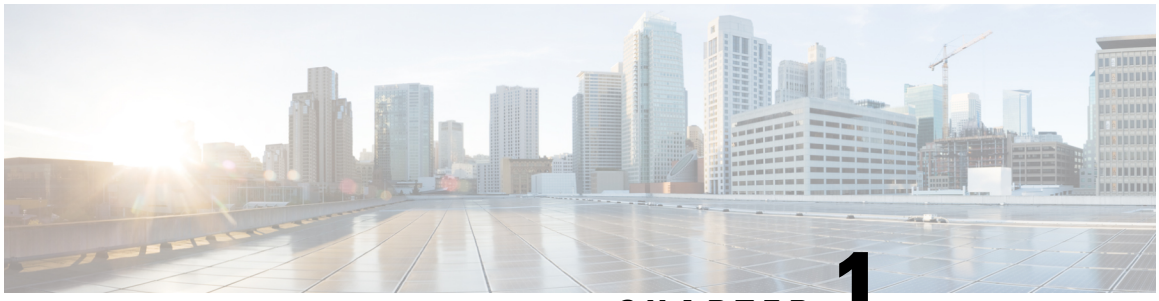
Documentation Feedback

To provide feedback about Cisco technical documentation, use the feedback form available in the right pane of every online document.

Troubleshooting

For the most up-to-date, detailed troubleshooting information, see the Cisco TAC website at https://www.cisco.com/en/US/support/index.html.

Go to **Products by Category** and choose your product from the list, or enter the name of your product. Look under **Troubleshoot and Alerts** to find information for the issue that you are experiencing.



CHAPTER 1

Upgrade FPGA for C8500 Devices

This document covers details on upgrading FPGA for C8500-20x6C devices.

- Upgrade FPGA for C8500-20x6C, on page 1

Upgrade FPGA for C8500-20x6C

Use this procedure to upgrade the FPGA software for a C8500-20x6C device with WAN MACsec configured.

Before you begin

Make sure that the minimum software version of the C8500-20x6C device is Cisco IOS XE 17.12.5a before you proceed with upgrading the FPGA software.

Procedure

Step 1 Check the current version of FPGA on slot 0 of the C8500-20x6C device

Example:

```
show hw-programmable 0
```

This command displays the current version of FPGA on slot 0 of the C8500-20x6C device. Typically the FPGA version will be less than **24042317**.

Step 2 Go to https://software.cisco.com/download/home and download `c8000aep-hw-programmables.17.12.05a.SPA.pkg`.

This is the FPGA upgrade image for C8500-20x6C device with WAN MACsec configured.

Step 3 If the FPGA version of the C8500-20x6C device is less than 24042317, upgrade the FPGA software on slot 0 using this command:

Example:

```
upgrade hw-programmable FPGA file name bootflash:c8000aep-hw-programmables.17.12.05a.SPA.pkg 0

Start service Upgrade FPGA on SPA-Inter-Processor 0 from current version 22051912 to 24042317
(Y)es/(N)o/(C)ontinue? [Y] Y

Start service
This command could take up to 15 minutes, please wait and do not power-cycle the chassis or the card.
```

```
 Otherwise, hardware may be unrecoverable. It is recommended that all cards are running the same
version IOS-XE software prior to the upgrade. At the end of upgrade, cc/0 will be power-cycled.
(Y)es/(N)o/(C)ontinue? [Y] Y

Upgrade fpga hw-programmable on SPA-Inter-Processor 0

The fpga has been successfully upgraded on SPA-Inter-Processor/0.

PLEASE RELOAD THE CHASSIS NOW.
```

Step 4 After the FPGA upgrade is successful, reload the router

Step 5 Verify the upgrade was successful by using this command:

Example:

```
show hw-programmable 0
```

The version of the FPGA software is shown as **24042317**. If the version is not **24042317**, reach out to Cisco Technical Support team.