



## Preface

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## Audience

This publication is for experienced network administrators who will deploy the Cisco Application Policy Infrastructure Controller Enterprise Module (Cisco APIC-EM) in their network. Use this guide to troubleshoot any issues with the Cisco APIC-EM.

For additional information about deployment, security, and access for the Cisco APIC-EM, see the *Cisco Application Policy Infrastructure Controller Enterprise Module Deployment Guide*. For information about using the controller's GUI for the first time, see the *Cisco APIC-EM Quick Start Guide*.



**Note**

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The Cisco Application Policy Infrastructure Controller Enterprise Module (Cisco APIC-EM) is also referred to within this upgrade guide as a controller.

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## Document Conventions

This document uses the following conventions:

| Convention       | Description  |
|------------------|--|
| ^ or Ctrl        | Both the ^ symbol and Ctrl represent the Control (Ctrl) key on a keyboard. For example, the key combination <b>^D</b> or <b>Ctrl-D</b> means that you hold down the Control key while you press the D key. (Keys are indicated in capital letters but are not case sensitive.) |
| <b>bold font</b> | Commands and keywords and user-entered text appear in <b>bold font</b> .   |

| Convention               | Description   |
|--------------------------|---|
| <i>Italic font</i>       | Document titles, new or emphasized terms, and arguments for which you supply values are in <i>italic</i> font.  |
| Courier font             | Terminal sessions and information the system displays appear in <code>courier</code> font.  |
| <b>Bold Courier font</b> | <b>Bold Courier</b> font indicates text that the user must enter.   |
| [x]                      | Elements in square brackets are optional.   |
| ...                      | An ellipsis (three consecutive nonbolded periods without spaces) after a syntax element indicates that the element can be repeated.   |
|                          | A vertical line, called a pipe, indicates a choice within a set of keywords or arguments.   |
| [x   y]                  | Optional alternative keywords are grouped in brackets and separated by vertical bars.   |
| {x   y}                  | Required alternative keywords are grouped in braces and separated by vertical bars.   |
| [x {y   z}]              | Nested set of square brackets or braces indicate optional or required choices within optional or required elements. Braces and a vertical bar within square brackets indicate a required choice within an optional element. |
| string                   | A nonquoted set of characters. Do not use quotation marks around the string or the string will include the quotation marks.   |
| <>                       | Nonprinting characters such as passwords are in angle brackets.   |
| [ ]                      | Default responses to system prompts are in square brackets.   |
| !, #                     | An exclamation point (!) or a pound sign (#) at the beginning of a line of code indicates a comment line.   |

### Reader Alert Conventions

This document may use the following conventions for reader alerts:



#### Note

Means *reader take note*. Notes contain helpful suggestions or references to material not covered in the manual.



#### Tip

Means *the following information will help you solve a problem*.

**Caution**

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

**Timesaver**

Means *the described action saves time*. You can save time by performing the action described in the paragraph.

**Warning****IMPORTANT SAFETY INSTRUCTIONS**

This warning symbol means danger. You are in a situation that could cause bodily injury. Before you work on any equipment, be aware of the hazards involved with electrical circuitry and be familiar with standard practices for preventing accidents. Use the statement number provided at the end of each warning to locate its translation in the translated safety warnings that accompanied this device. Statement 1071

SAVE THESE INSTRUCTIONS

## Related Documentation

This section lists the Cisco APIC-EM and related documents available on [Cisco.com](http://www.cisco.com) at the following url:

<http://www.cisco.com/c/en/us/support/cloud-systems-management/one-enterprise-network-controller/tsd-products-support-series-home.html>

- Cisco APIC-EM Documentation:
  - *Release Notes for the Cisco Application Policy Infrastructure Controller Enterprise Module*
  - *Supported Platforms for the Cisco Application Policy Infrastructure Controller Enterprise Module*
  - *Cisco APIC-EM Quick Start Guide* (directly accessible from the controller's GUI)
  - *Cisco Application Policy Infrastructure Controller Enterprise Module Deployment Guide*
  - *Cisco Application Policy Infrastructure Controller Enterprise Module Upgrade Guide*
  - *Cisco Application Policy Infrastructure Controller Enterprise Module Configuration Guide*
  - *Cisco Application Policy Infrastructure Controller Enterprise Module Hardware Installation Guide*
  - *Cisco Application Policy Infrastructure Controller Enterprise Module Troubleshooting Guide*
  - *Open Source Used In Cisco APIC-EM*
- Cisco IWAN Documentation for the Cisco APIC-EM:
  - *Release Notes for Cisco IWAN*
  - *Release Notes for Cisco Intelligent Wide Area Network Application (Cisco IWAN App)*

- *Configuration Guide for Cisco IWAN on Cisco APIC-EM<sup>1</sup>*  
*Cisco IWAN on Cisco APIC-EM Configuration Guide*
- *Software Configuration Guide for Cisco IWAN on APIC-EM*
- *Open Source Used in Cisco IWAN and Cisco Network Plug and Play*
- Cisco Network Plug and Play Documentation for the Cisco APIC-EM:
  - *Release Notes for Cisco Network Plug and Play*
  - *Solution Guide for Cisco Network Plug and Play*
  - *Configuration Guide for Cisco Network Plug and Play on Cisco APIC-EM*
  - *Cisco Open Plug-n-Play Agent Configuration Guide*
  - *Mobile Application User Guide for Cisco Network Plug and Play*

**Note**

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For information about developing your own application that interacts with the controller by means of the northbound REST API, see the [developer.cisco.com/site/apic-em](http://developer.cisco.com/site/apic-em) Web site.

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## Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, using the Cisco Bug Search Tool (BST), submitting a service request, and gathering additional information, see [What's New in Cisco Product Documentation](#).

To receive new and revised Cisco technical content directly to your desktop, you can subscribe to the [What's New in Cisco Product Documentation RSS feed](#). RSS feeds are a free service.

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<sup>1</sup> This is an updated and renamed version of the previous version of this document (*Cisco IWAN on Cisco APIC-EM Configuration Guide*).