

# Cisco IOS XE Bundle Boot Mode Will Be Discontinued After Release 17.18

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# Contents

Introduction	3
Background	5
Recommendations	5
Download instructions (External)	5




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## Introduction

When installing Cisco IOS® XE on a device, there are two options for installation and boot: Install Mode and Bundle Mode. After Release 17.18, Bundle Mode (.bin file) will be discontinued, and Install Mode (packages.conf file) will be the only option supported.

Bundle Mode is the mode when .bin file is copied to the flash and gets loaded to the memory directly. Bundle Mode requires the entire .bin file to be loaded into the device's RAM to be unpacked and thus presents technical constraints as the .bin file size grows with new features. As more new capabilities are added to Cisco IOS XE, it is becoming increasingly infeasible to mitigate those technical constraints with Bundle Mode. Install Mode uses a different installation method that does not require the entire .bin file to be loaded into RAM. Install Mode also enables other capabilities such as Software Maintenance Upgrade (SMU) patching not available in Bundle Mode. Cisco recommends that customers migrate their devices to Install Mode as soon as it is convenient.

Install Mode is the mode when the image is extracted in flash and device loads packages.conf file to the memory. Install Mode is used by Cisco Catalyst™ SD-WAN today and by most Catalyst switch installations. Starting with Cisco IOS XE Release 17.15.1, all new products shipped with Cisco IOS XE installed in manufacturing will be configured with Install Mode by default. Customers are encouraged to start the transition to Install Mode as soon as practical.

 Problem	Affected Product Name	Description	 Solution
<p>The Bundle Mode will <b>NOT</b> be available after 17.18 due to</p> <ol style="list-style-type: none"> <li>1. Increased image size</li> <li>2. Lack support for Software Maintenance Upgrades (SMU)</li> </ol>	Catalyst 1100/ISRK	All models (including C1100TG)	Use Install Mode to bootup. It has the following advantages
	Catalyst 8000V	All versions	1. Supports "SMU, which can be installed on a system to provide a patch fix or security resolution to a released image
	Catalyst 8200	C8200-1N-4T, C8200L-1N-4T	2. Infrastructure changes will require packages.conf
	Catalyst 8300	C8300-2N2S-4T2X, C8300-1N1S-4T2X, C8300-2N2S-6T, C8300-1N1S-6T	3. Boot time improvements
	Catalyst 8500	C8500L-8S4X, C8500-12X, C8500-12X4QC, C8500-20X6C	<div data-bbox="1104 858 1425 947" style="background-color: #1a3d4d; color: white; padding: 5px; text-align: center;">  Note           </div> <p>This change only affects devices running in autonomous mode as in SD-Routing and SD-WAN mode devices already using install mode.</p>
	ASR1000 modular	ASR1006-X, ASR1009-X	
	ASR1000 HX	ASR1001-HX, ASR1002-HX	
	VG400	VG400, VG410, VG420, VG450	

**Figure 1.**  
Problem, solution, and platforms affected

**Note:** Additional product names will be added in the future as required. Check with your local sales teams if you have questions on other supported IOS XE products. If certain models reach end of sale prior to or past Release 17.18, those models will not be affected.

\* An SMU ([SMU description](#)) is a package that can be installed on a system to provide a patch fix or security resolution to a released image. SMU patching is available only in packages.conf (starting in Cisco IOS XE Release 17.9.1) and supported only with Install Mode. Customers using Bundle Mode are not able to take advantage of SMUs.

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## Background

Traditionally, Cisco IOS XE has always supported Bundle Mode for packaging and for booting up. Install Mode is a newer mode introduced in Cisco IOS XE Release 17.9.1. Once an image is downloaded, customers have the option of installing using either mode. To help ensure that new features are available, Cisco is discontinuing Bundle Mode after Release 17.18.

Install Mode is the more modern method and is the mode recommended by Cisco. The .bin gets broken into smaller package files (.pkg files) and extracted into flash using an install command and loaded into memory independently of each other. Packages.conf is like an index/ pointer to all these .pkg files and uses the packages.conf file to boot the system. When the device boots up, this .conf file is opened to load the needed .pkg files, thereby using less RAM memory compared to bundle boot mode. This allows for faster boot times and better memory utilization. One caveat: Install Mode does not support boot from USB flash or TFTP.

## Recommendations

Customers and partners are encouraged to migrate to Install Mode on or before Release 17.15.1. This will provide ample time to complete the transition before Bundle Mode is discontinued.

## Download instructions (External)

Refer to the following link on Information About Installing the Software Using install Commands:

[https://www.cisco.com/c/en/us/td/docs/routers/cloud\\_edge/c8500/software-configuration-guide/c8500-software-config-guide/Package\\_Management-1.html#Cisco\\_Concept.dita\\_db8b7551-55cd-4dbd-b39e-fa9811cfb460](https://www.cisco.com/c/en/us/td/docs/routers/cloud_edge/c8500/software-configuration-guide/c8500-software-config-guide/Package_Management-1.html#Cisco_Concept.dita_db8b7551-55cd-4dbd-b39e-fa9811cfb460).

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