



Document ID: 117636

Updated: Nov 12, 2015

Contributed by Luke Primm, Cisco TAC Engineer.



[Download PDF](#)



[Print](#)

[Feedback](#)

Related Products

- [Cisco Catalyst 3850 Series Switches](#)
- [Cisco 5760 Wireless LAN Controller](#)

Contents

[Introduction](#)
[Prerequisites](#)
[Requirements](#)
[Components Used](#)
[Configure](#)
[Verify](#)
[Troubleshoot](#)
[Related Information](#)
[Related Cisco Support Community Discussions](#)

Introduction

This document describes how the Cisco IOS[®] image size increases when you upload an image to a switch. This size increase results in a longer transfer time. The later release on the Cisco Catalyst 3850 is 245MB in size and can take up to 30 minutes to TFTP to the switch. The configuration described in this document can be used to speed up the transfer time.

Prerequisites

Requirements

Cisco recommends that you have knowledge of these topics:

- TFTP
- FTP

Components Used

The information in this document is based on the Cisco Catalyst 3850 Series switch that runs Cisco IOS-XE 03.03.02SE and earlier versions. The examples mentioned, use a standalone 3850 switch. The same commands can be used on a stack. Commands discussed in this document are also applicable to Cisco 5760 wireless controller.

The information in this document was created from the devices in a specific lab environment. All the devices used in this document started with a cleared (default) configuration. If your network is live, make sure that you understand the potential impact of any command.

Note: In order to download the Cisco IOS-XE images from the Cisco website, you must have a valid Cisco Connection Online (CCO) account with entitled credentials. Cisco does not offer a free TFTP/FTP solution; therefore, you must install and configure the TFTP/FTP before you begin.

Configure

By default, the Catalyst 3850 uses a TFTP block size value of 512, which is the lowest possible value. This default setting is used in order to ensure interoperability with legacy TFTP servers.

```
3850(config)#ip tftp blocksizes ?
<512-8192> blocksizes value
```

In the Cisco IOS-XE 3.3.2 and earlier versions, you must manually change the block size in the global configuration to speed up the transfer process.

Note: This example shows a transfer comparison when you use the default block size of 512K versus a transfer of maximum block size value of 8192K.

```
3850#copy tftp flash:
Address [172.16.108.26]?
Source filename [IOS/3850/cat3k_caa-universalk9.SPA.03.03.02.SE.150-1.EZ2.bin]
Destination filename [cat3k_caa-universalk9.SPA.03.03.02.SE.150-1.EZ2.bin]?
Accessing tftp://*****@172.16.108.26/cat3k_caa-universalk9.SPA.03.03.02.SE.150-1.EZ2.bin...
Loading cat3k_caa-universalk9.SPA.03.03.02.SE.150-1.EZ2.bin from 172.16.108.26 (via Vlan1):
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
```

```
[OK - 257243236 bytes]
```

```
257243236 bytes copied in 1416.360 secs (181623 bytes/sec)
```

The results show that the 245MB .bin file was transferred in 1416.360 seconds (which is equal to 24 minutes). Now, adjust the block size value to the maximum allowed value of 8192.

```
3850#config t
3850(config)#ip tftp blocksizes 8192
3850(config)#end
```

The same transfer is executed again.

```
3850#copy tftp flash:
Address [172.16.108.26]?
Source filename [IOS/3850/cat3k_caa-universalk9.SPA.03.03.02.SE.150-1.EZ2.bin]
Destination filename [cat3k_caa-universalk9.SPA.03.03.02.SE.150-1.EZ2.bin]?
```

```
Accessing tftp://*****@172.16.108.26/cat3k_caa-universalk9.SPA.03.03.02.SE.150-1.EZ2.bin...
Loading cat3k_caa-universalk9.SPA.03.03.02.SE.150-1.EZ2.bin from 172.16.108.26 (via Vlan1):
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
[OK - 257243236 bytes]
```

257243236 bytes copied in 124.100 secs (2072871 bytes/sec)

The results are clearly better. The same file is transferred in two minutes with the new block size value.

Verify

There is currently no verification procedure available for this configuration.

Troubleshoot

If you change the block size value and the TFTP does not work, ensure that the TFTP server can handle larger block size transfers.

Related Information

- [Cisco Catalyst 3850 Series Switches - Data Sheets and Literature](#)
- [Cisco Catalyst 3850 Series Switches - Product Support Page](#)
- [Cisco 5700 Series Wireless LAN Controllers - Data Sheets and Literature](#)
- [Cisco 5700 Series Wireless LAN Controllers - Product Support Page](#)
- [Technical Support & Documentation - Cisco Systems](#)

Was this document helpful? [Yes](#) [No](#)

Thank you for your feedback.

[Open a Support Case](#) 📄 (Requires a [Cisco Service Contract](#).)

Related Cisco Support Community Discussions

The [Cisco Support Community](#) is a forum for you to ask and answer questions, share suggestions, and collaborate with your peers.

Refer to [Cisco Technical Tips Conventions](#) for information on conventions used in this document.