



## Configuring Swap Drive

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## Swapping the External Drive

### Swap Drive and Disaster Recovery

The swap drive feature enables you to replace a failed switch quickly and easily. You simply move an external secure digital (SD) card or USB drive with a backup of the original switch to the new. After you turn on the new switch, it comes up with the same image and configuration as the original switch.

The swap drive feature is available for Cisco Catalyst IE9300 Rugged Series Switches beginning in Cisco IOS XE Cupertino 17.9.1. Each Cisco Catalyst IE9300 Rugged Series Switch has a secure digital (SD) cardslot and a USB-A port. See the [Cisco Catalyst IE9300 Rugged Series Switch Hardware Installation Guide](#) on Cisco.com for information about the switch SD cardslot and USB port.

In order to restore the settings to the new switch, you must have previously synchronized the original switch with the SD card or USB drive. Although you can run synchronization at any time manually, we recommend that you configure synchronization to occur automatically at set times.

When you request synchronization—either manually or automatically—the switch checks for any discrepancies between the internal flash drive on the switch and the SD card.

When an SD card is formatted on the switch, the card is formatted with the Disk Operating System File System (DOSFS), a platform-independent industry-standard file system that is supported on various Cisco switches and routers. The switch does not support third-party SD cards or SD High Capacity (SDHC) cards.

If the write-protect switch on the SD card is in the lock position, the switch can read data on the card and use files on the SD card during the boot process, but cannot write updates and files to the card.

You can use a USB 2.0 drive as you would use an SD card for the swap drive feature.



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**Note** For the swap drive feature to work, Cisco IOS XE Cupertino 17.9.1. must be installed on both the original switch and the replacement switch.

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### How Swap Drive Works

Swap drive consists of two main stages: backup of the original switch and recovery of the image and configuration on the new switch.

Backup duplicates the entire system in the external SD card or USB drive. You trigger backup by entering a CLI command, either to do a one-time sync or to set up automatic periodic syncs. If the switch has already been backed up, only changes since the last backup are duplicated in the external drive.

Restore occurs automatically, when you insert the external drive in the new switch and then power on the switch. The new switch looks for an SD card and scans it to see if an image and configuration are present. If they are present, the switch then copies them to internal flash and comes up with the image and configuration of the original system.

If an SD card isn't present or doesn't have the original switch's image and configuration, the switch then looks for and scans the USB drive. If they are present on the USB drive, the switch comes up with the original switch's image and configuration. If the image and configuration are not present on any external media, the system asks the user whether to continue with the initial configuration on the new switch.

For swap drive instructions, see [Swap the External Drive](#); for a list of CLI commands, see [Swap Drive CLI Commands](#). Both sections are in this guide.

## Swap the External Drive

You remove the SD drive from the failed switch, and insert it into the new switch, then power on the new switch. A new switch is a switch without a startup configuration file. This is the case if the new switch has never been deployed before.

### Before you begin

Cable the new switch correctly and make sure that it is powered off before you transfer the SD card or USB drive.

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- Step 1** On the failed switch, remove the SD card or USB drive.
- Note** The SD card and USB drive are hot-swappable, but do not remove it from the switch while sdflash write is in progress.
- Step 2** On the new switch, ensure that the SD card or USB drive is oriented properly, and then press it into the slot on the switch until it is seated.
- Step 3** Power on the new switch.  
The image and configuration of the failed switch are transferred to the new one.
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## Swap Drive CLI Commands

The following table lists the CLI commands for the swap drive feature.



**Note** Perform all **auto sync** commands in configuration mode.

Command	Description
<ul style="list-style-type: none"> <li>• <b>sync sdflash:</b></li> <li>• <b>sync usbflash1:</b></li> </ul>	Syncs the switch image and configuration files from internal flash to the SD or USB drive.
<ul style="list-style-type: none"> <li>• <b>sync sdflash: ios-image</b></li> <li>• <b>sync usbflash1: ios-image</b></li> </ul>	Syncs the switch image from the internal flash to the SD or USB drive.
<ul style="list-style-type: none"> <li>• <b>sync sdflash:skip config</b></li> <li>• <b>sync usbflash1: skip config</b></li> </ul>	Syncs the switch image from the internal flash to the SD or USB drive but does not sync the configuration.
<ul style="list-style-type: none"> <li>• <b>sync sdflash:skip ios-image</b></li> <li>• <b>sync usbflash1: skip ios-image</b></li> </ul>	Syncs the configuration files on the internal flash to the SD or USB drive but does not sync the image.
<b>sync restore-bundle</b>	Copies the bundle image in the new switch instead of installing it during restore.
<b>[no] auto sync enable</b>	Enables or disables the auto sync feature.  <b>Note</b> Auto sync is disabled by default. Unless you enable it, you cannot use other options for the feature.
<b>auto sync config [usbflash1 sdflash]:</b>	Sets the configuration to run during the sync.
<b>[no] auto sync run time: [hh:mm:ss]</b>	The time when sync is performed. The default is 00:00:00.
<b>show sync status</b>	Displays the last sync time and status.  <b>Note</b> If a type-6 password is configured, the status shows the configuration as out of sync with the message that type-6 passwords are not synced.
<b>show auto sync configuration</b>	Displays all the configuration settings.
<b>show auto sync status</b>	Displays the last auto sync time and status.

