



Installing TSN on an IE 4000 Switch

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This section will guide you through installing the TSN capable software package on an IE 4000 switch.

- Step 1** Download the TSN Enabled IOS package from Cisco.com.
For more information about IOS installation and detailed configuration procedures, refer to the [Cisco Industrial Ethernet 4000, 4010 and 5000 Switch Software Configuration Guide](#).
- Step 2** Connect a console port to the IE 4000 switch and make sure it is currently running Cisco IOS.
- Step 3** Proceed with one of the following procedures depending on if you are installing a new switch, upgrading a previously configured TSN switch, or configuring a TSN switch.
- You may install the image via FTP, TFTP, or SDFlash. Follow the steps outlined in the [Working with the Flash File System](#).
- On a NEW Switch:
- Let the switch boot up Completely!
 - Let the switch boot up. It will boot up with the default image inside it.
 - Now go to the “Upgrading the switch image:” section to install TSN image on the switch.
- Upgrading the new switch or old TSN-enabled switch with new image:
- Copy the new tar IOS image into the switch via FTP, TFTP or SDFlash.
- Example:**
- ```
archive download-sw sdfsflash:<image name> flash:
```
- This process will take around 15-20 mins to complete.
- Once completed, issue the following commands.:
- Example:**
- ```
configure terminal
boot system flash:<image name>/<image name>.bin exit
write
reload
```
- After the switch is up with the new image, you need to activate the license for TSN. Follow the procedure below.

Example:

```
enable
configure terminal
service internal
exit
license right-to-use activate tsn
write
reload
```

- d) Once the switch is up it will be TSN enabled and you should be able to use TSN functionality on it. To cross check in the enable mode issue following command:

Example:

```
sh tsn ?
Switch#sh tsn ?
    be_stats      BE traffic statistics
    cnc           Current CNC server connection status
    flow         TSN flows
    fpga         FPGA file information
    license-on-SD Information for tsn license in sdflash
    schedule     schedule
    shadow       Current shadow information
Switch#
```
