

# Upgrading ICX Firmware via TFTP

## Introduction

Following best practices and for some features to work the firmware of the ICX switches must be upgraded for mostly all scenarios. This guide serves as a step-by-step guide to upgrading the firmware.

You will need:

- ICX Switch
- PC/Laptop
- TFTP Server Software
- Console Cable
- Ethernet Cable
- Firmware image

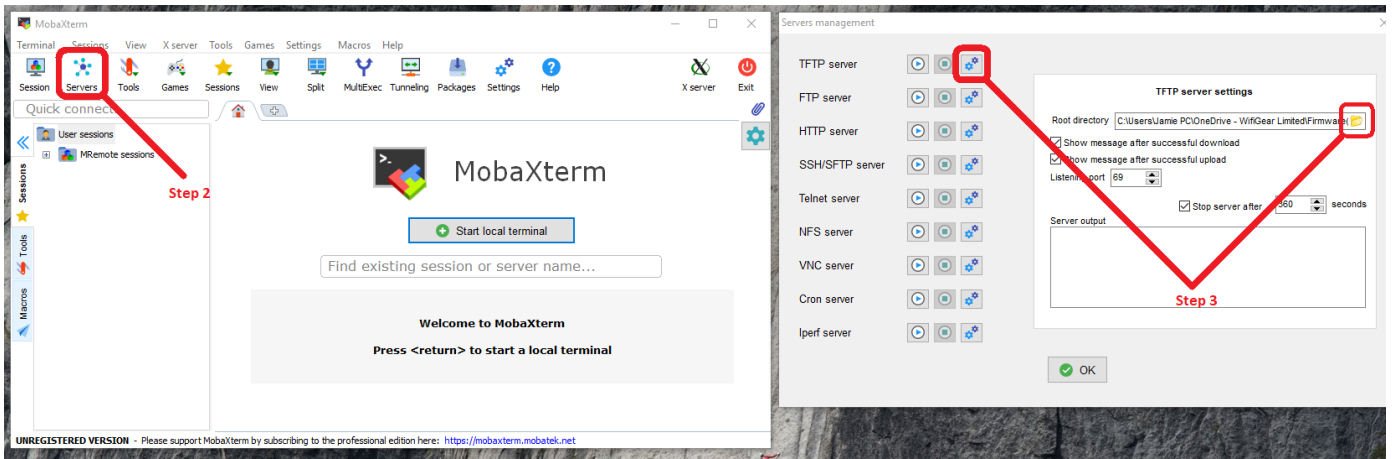
## Method

**Step 1)** Download and extract the software required. Downloads can be found here:

<https://support.ruckuswireless.com/software> N.B. you will need Ruckus credentials to obtain the software.

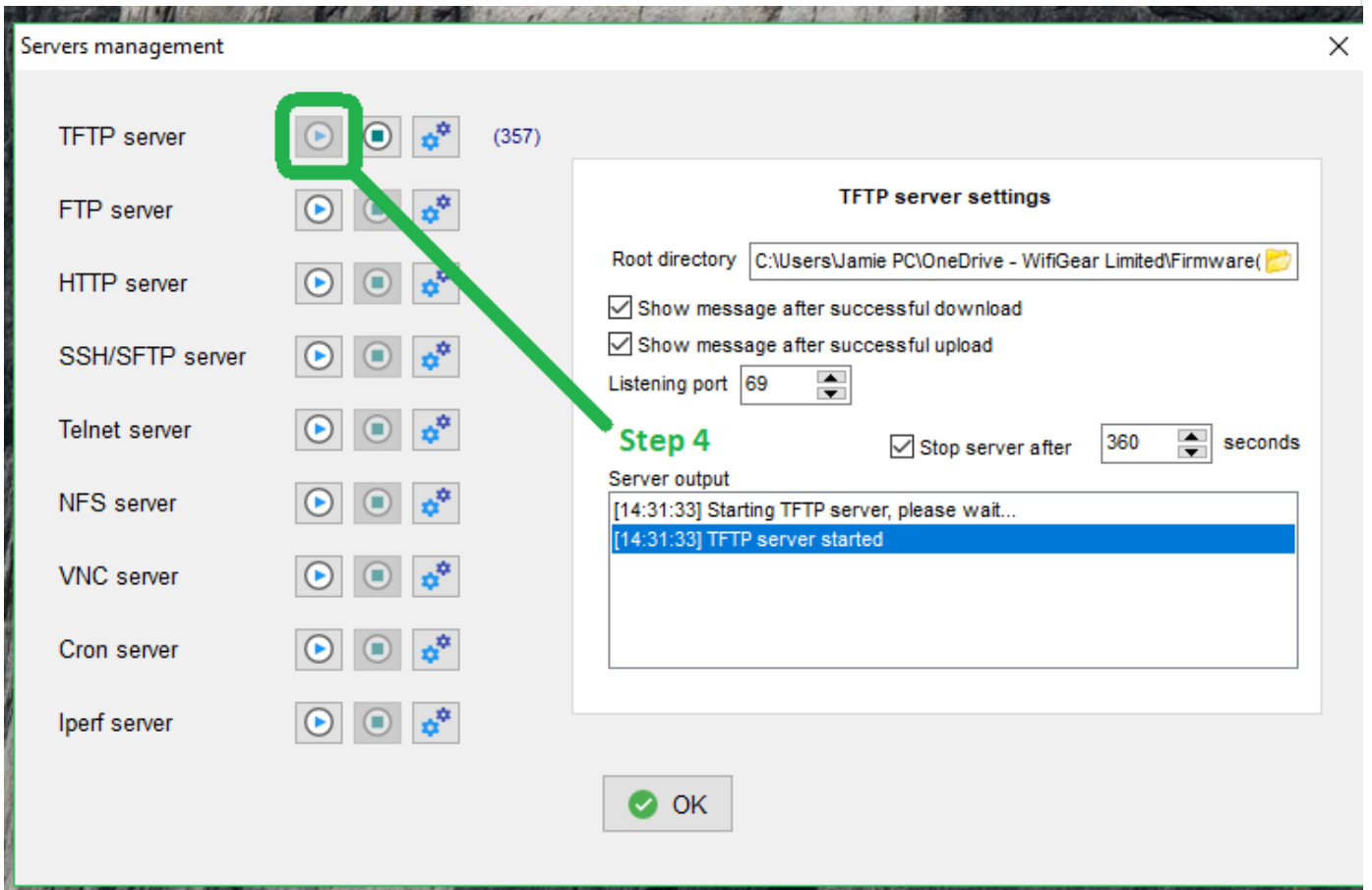
**Step 2)** Start up a TFTP Server. For this guide I will be using MobaXterm. Once running, click 'Servers'. A new page will load up.

**Step 3)** Click the 'Configuration' box under TFTP and select the file path of the ***firmware images***



**Step 4)** Once the information has been entered correctly, start the server by clicking the 'Play' icon.

Be aware there is a default 360-second timeout in which to carry out the next steps before the TFTP server closes.



**Step 5)** Log in to the ICX Switch via web browser and browse to: TFTP > Image

You will need to enter the IP address of the server (in this case the computers IP address) and the \*\*file name, including the extension.

The screenshot displays the Ruckus web interface. On the left, a navigation tree is visible with categories like Management, Port, QOS, VLAN, Command, and TFTP. The 'TFTP' category is highlighted with a red box, and its sub-items 'Configuration' and 'Image' are also highlighted. A red arrow points from this 'TFTP Image' link to a configuration window titled 'TFTP Image' in the top right. This window contains a form with the following fields: 'TFTP Server IP' (192.168.88.254), 'Image File Name' (SPS08080.bin), and 'Flash' (radio buttons for Primary and Secondary, with Primary selected). Below the form are 'Copy from Server' and 'Save to Server' buttons. A breadcrumb trail at the top right reads: [Home][Site Map][Logout][Save][Frame Enable|Disable][TELNET]. A red arrow labeled 'Step 5' points to the 'Copy from Server' button. At the bottom center, there is a small 'Outlook 2016' watermark.

The file required will be under 'Images' and not 'Firmware'.

SPS - Switch

SPR - Router

Do not use the ufi.bin files, only use the .bin file types when uploading.

**Step 6)** On the web interface of the switch click 'Copy from Server'. If successful, the device should start the upgrading process.

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Apps ConnectWise PRTG Password Gen 3.4 3.6+

### TFTP Image

TFTP Server IP:	192.168.88.254
Image File Name:	SPS0R0R0 bin
Flash:	<input checked="" type="radio"/> Primary <input type="radio"/> Secondary

**Copy from Server** Save to Server

Status: TFTP completed.

[\[Home\]](#) [\[Site Map\]](#) [\[Logout\]](#) [\[Save\]](#) [\[Frame Enable/Disable\]](#) [\[TELNET\]](#)

**Step 6**

- Management
  - Authentication Methods
  - Authorization Methods
  - Accounting Methods
  - Community String
  - General
  - System Log
  - Trap
  - Trap Receiver
  - User Account
  - Web Preference
- Port
  - Ethernet
  - Inline Power
  - Management
  - Monitor and Mirror
- QOS
  - Profile
  - Bind

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### Loading

[\[Home\]](#) [\[Site Map\]](#) [\[Logout\]](#) [\[Save\]](#) [\[Frame Enable/Disable\]](#) [\[TELNET\]](#)

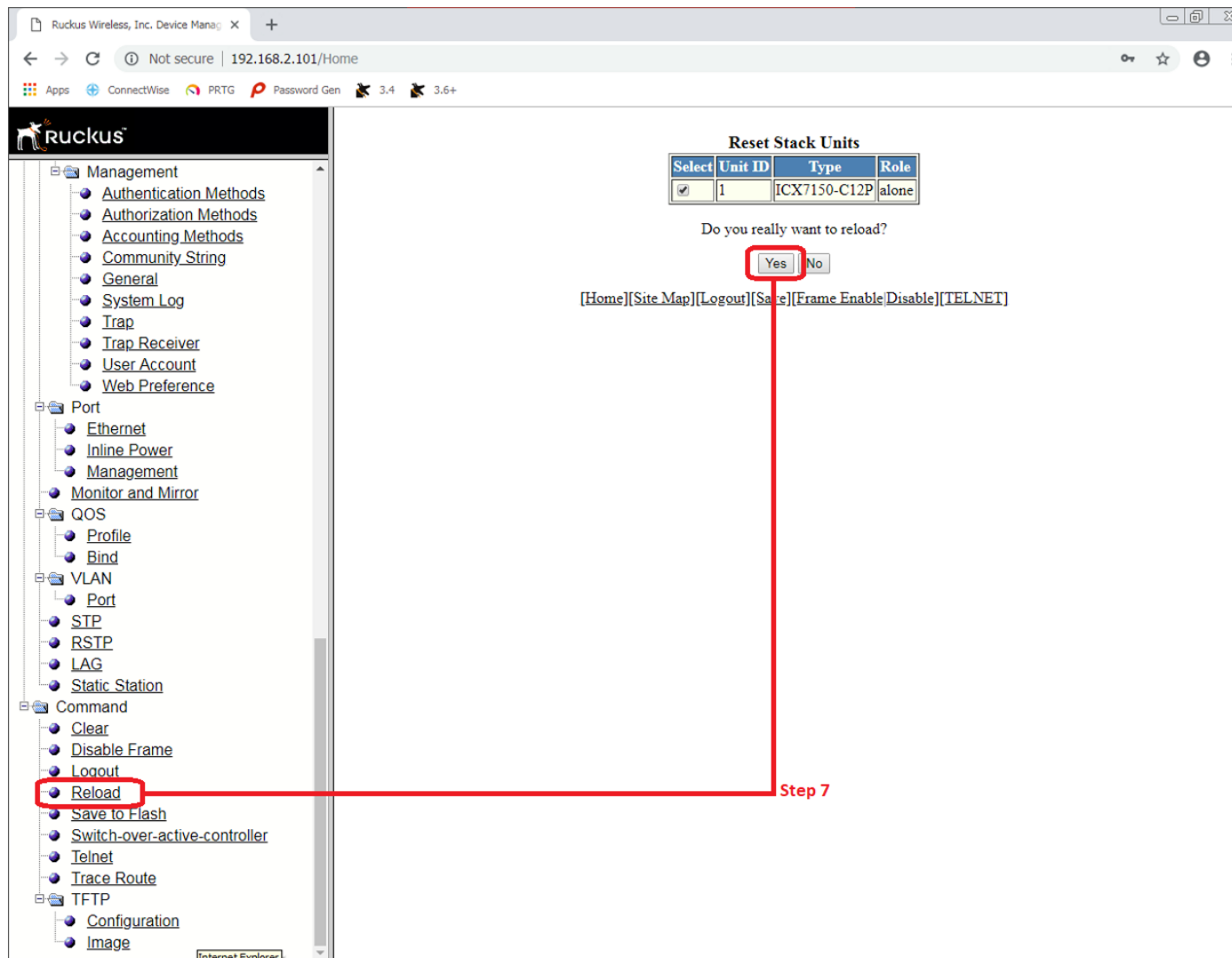
- Management
  - Authentication Methods
  - Authorization Methods
  - Accounting Methods
  - Community String
  - General
  - System Log
  - Trap
  - Trap Receiver
  - User Account
  - Web Preference
- Port
  - Ethernet
  - Inline Power
  - Management
  - Monitor and Mirror
- QOS
  - Profile
  - Bind
- VLAN
  - Port
  - STP
  - RSTP
  - LAG
  - Static Station
- Command
  - Clear
  - Disable Frame
  - Logout
  - Reload
  - Save to Flash
  - Switch-over-active-controller
  - Telnet
  - Trace Route
- TFTP
  - Configuration
  - Image

The GUI will then display a red processing bar, wait until this is complete.

You may refer back to the serial connection to monitor progress, it will take a couple of minutes to write the new firmware and restart.

**Step 7)** Reboot the device. On the web interface browse to: Command > Reload

Confirm with 'Yes' to reboot. Alternatively, perform a hard (physical) reboot.



**Step 8)** Confirm firmware is upgraded by logging back in after the reboot.

- CLI command: show version

ICX7150-C12 Switch>show version

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UNIT 1: compiled on Jul 3 2018 at 21:55:58 labeled as SPS08080  
(25940204 bytes) from Primary SPS08080.bin

**SW: Version 08.0.80T211**

Compressed Boot-Monitor Image size = 786944, Version:10.1.11T225 (mnz10111)  
Compiled on Wed Dec 13 11:13:34 2017

HW: Stackable ICX7150-C12-POE

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=====

UNIT 1: SL 1: ICX7150-C12-2X1G POE 12-port Management Module

Serial #:FEK3233P129  
Software Package: BASE\_SOFT\_PACKAGE  
Current License: 2X1G  
P-ASIC 0: type B160, rev 11 Chip BCM56160\_B0

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UNIT 1: SL 2: ICX7150-2X1GC 2-port 2G Module

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UNIT 1: SL 3: ICX7150-2X10GF 2-port 20G Module

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=====

1000 MHz ARM processor ARMv7 88 MHz bus  
8192 KB boot flash memory  
2048 MB code flash memory  
1024 MB DRAM

STACKID 1 system uptime is 58 second(s)  
The system started at 02:15:38 GMT+00 Sat Jan 01 2000

The system : started=warm start reloaded=by "reload"

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=====

WARNING: Boot-monitor version mismatch!!!  
Please use "show boot-monitor" command for details

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- Web interface: Monitor> Device

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**ruckus**

ICX7150-C12 Switch

- Monitor
  - Arp Cache
  - Device
  - Flash
  - Memory
  - Front Panel
  - MAC Address
  - System Log
- Stack
  - Details
  - Module
  - Neighbors
- Stack-Ports
  - Status
  - Statistics
  - Interface
- Port
  - Statistic
  - Ethernet
  - Utilization
  - Ethernet
  - Management
  - Inline Power
- STP
- RSTP
- IP
  - Traffic
  - DNS
    - Domain-List
    - Server-Address
- RMON

**Step 8**

**Device Information**

Unit ID:	1 Display
Role:	alone
System Up Time:	4 minutes 56 seconds
System Started At:	02:15:38 GMT+00 Sat Jan 01 2000
System Clock:	Jan 1 02:20:26
Running Image Version:	SW: Version 08.0.80T211 Compiled on Jul 3 2018 at 21:55:58 labeled as SPS08080
Flash Primary Image Version:	08.0.80T211, size=25940204
Flash Secondary Image Version:	08.0.70T213, size=29341752
Boot Image Version:	10.1.11T225, size=786944
Fan controlled temperature:	Fanless model
Warning temperature:	100.0 C
Shutdown temperature:	109.0 C
CPU Utilization 1 sec avg:	4 % busy
CPU Utilization 5 secs avg:	1 % busy
CPU Utilization 60 secs avg:	1 % busy
CPU Utilization 300 secs avg:	1 % busy
Serial Number:	FEK3233P129
License:	Software Package: BASE_SOFT_PACKAGE Current License: 2X1G
Power Supply 1:	Power supply 1 (AC - PoE) present, status ok

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Revision #1

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