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Firmware update using TFTP via Telnet

- 2022-01-10 - Classic Switches

This howto describes the TFTP firmware update on Hirschmann Platform devices RS20/30/40, RSR20/30, MS20/30, PowerMICE, MACH100/1000/4000 and Octopus.

### Preparation

For a TFTP-Update you need a TFTP-server where the required software file is stored. TFTP stands for Trivial File Transfer Protocol.

In this manual the freeware program "Tftpd32"- from Ph. Jounin, free download at http://tftpd32.jounin.net/ - is used.

Start "tftpd32.exe" program.

### **TFTP-server settings**

😤 Tftpd32 by Ph. Jounin 📃 🗖 🔀						
Current Directory C:\ShortFolder\Firmware\v07-0-03\Railswitch   Server interface  192.158.1.111  Ittl: Server   The Client   Los viewer				][	<u>B</u> rowse Show <u>D</u> ir	
peer	file	start time	progress	bytes	to	al timeo
About		<u></u>	ettings			Help

Make sure the correct network interface card is selected as "Server Interface".

Change the "Current Directory" to the directory which contains the firmware file. You can use the "Browse" button to select the directory.

# Browse for directory

🏘 Browse Fo	r Folder	? 🗙
= 🖉	> ShortFolder	^
6	🛛 🧰 Firmware	
	🗉 🚞 v4-xx	
	🗉 🚞 v05-0-07	
	표 🚞 v06-0-01	
	🗉 🚞 v06-0-03	≡
	🗉 🚞 v07-0-00	_
	🗉 🚞 v07-0-02	
	▶= 🚞 v07-0-03 <del>_</del>	
1	Cotopus	
Folder: Ra	lswitch	
Make New Fo	lder OK	Cancel

Select the directory which contains the firmware file (e.g. rsL2P.bin) Click "OK" to continue

# **Browse files in Current Directory**

🏘 Tftpd32: directo	огу		×
Ildp_med.mib Ildp_pno.mib Beadme_07.0.03.txt	16/12/2011 16/12/2011 16/12/2011	61395 19712 20974	>
Readme_RailSwitch.07 rsL2E.bin rsL2E07003_00.jar rsL2P.bin rsL2P07003_00.jar usrgrp.mib	7.0.03.txt 16/12 16/12/2011 16/12/2011 16/12/2011 16/12/2011 16/12/2011 16/12/2011	/2011 4199717 2691343 5456104 2789583 27149	
Close	Сору	Explorer	

To make sure that the desired firmware file is available click "Show Dir" Click "Close" to return to the main window.

### **Open telnet session**

Copyright (c) 2004-2012 Hirschmann Automation and Control GmbH					
All rights reserved					
Railswitch Release L2E-07.1.03-B17					
(Build date 2012-06-25 19:48)					
System Name: RS-4BA19E Mgmt-IP : 172.16.1.10 Base-MAC : 00:80:63:4B:A1:9E System Time: 2012-01-01 03:30:19					
User:admin Password:*****					
NOTE: Enter '?' for Command Help. Command help displays all options that are valid for the 'normal' command forms of that particular mode. For a list of valid 'no' command forms for that mode, enter the help command 'no ?'. For the syntax of a particular command form, please consult the documentation.					
(Hirschmann Railswitch) >					

1. Open telnet session

2. Login as "admin" (default password is "private")

#### Start TFTP update

TFTP code transfer starting

1. Change into priviledged mode using the command "enable" - the prompt will change from ">" to "#"

2. Use the copy command to start the tftp file transfer. The syntax is "copy tftp://<ip

address of tftp server>/<file name>.bin system:image" (e.g. "copy

tftp://172.16.1.143/rsL2E.bin system:image)

3. Confirm the blocked management access during the update with "y"

#### **Observe the file transfer**

🏘 Tftpd32 by Ph. Jo	ounin					
Current Directory C:\Sho Server interface 192.16 Thp Server Thp Client	ntFolder\Firmware\vi 8.1.111   Log viewer	07-0-03\Rails	witch	•		Browse
peer	file	start time	progress	bytes	total	timeo
192.168.1.30:7700	<rsl2e.bin<< td=""><td>15:37:48</td><td>37%</td><td>1565696</td><td>4199717</td><td>0</td></rsl2e.bin<<>	15:37:48	37%	1565696	4199717	0
	🏘 rsL 2E. bin	to 192.16	8.1.30	×		
	1565696 By	File size : 419 tes sent	99717 55917 By	vtes/sec		
About		<u>S</u>	ettings			<u>H</u> elp

During the file transfer you will get a progress window popup in the TFTPd32.

🏘 Tftpd32 by	Ph. Jounin					
Current Directory Server interface Tftp Server   Tftp	C:\ShortFolder\Firmware\v07-0-03\Railsv 192.168.1.111 Client Log viewer	vitch	<u>B</u> rowse Show <u>D</u> ir			
Connection received from 192.168.1.30 on port 7700 [19/12 15:37:48.218] Read request for file <rsl2e.bin>. Mode octet [19/12 15:37:48.218] Using local port 1573 [19/12 15:37:48.218] <rsl2e.bin>: sent 8203 blks, 4199717 bytes in 75 s. 0 blk resent [19/12 15:39:03.343]</rsl2e.bin></rsl2e.bin>						
<						
Clear Copy						
About	<u>S</u> ettings		Help			

Both tabs "TFTP Server" and "Log Viewer" shows which files have been served.

After the file transfer is finished the switch will write the firmware file into the flash.

Once this is finished the message "**File transfer operation completed successfully**" will be shown in the telnet window.

**Reboot** the switch to activate the new firmware.

The telnet session will be closed. You can reconnect and check the firmware version after the switch has completed rebooting.