

FSOS

File Upload and File Download

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## 1. File Upload and File Download

### 1.1 Overview for File Download

File download is to download files from the external to the DUT's flash, such as the upgrade file (host file, bootrom file), the configuration file, and the ssh key file.

Host file name suffix must be .arj; bootrom file name suffix must be .bin; the configuration file name suffix must be .txt; the ssh key file name suffix must be .txt.

Download tools include xmodem, tftp, ftp.

When using the xmodem tool, after entering the command,, select "Send" -> "Send File" in the HyperTerminal menu. In the "Send File" dialog box, enter the full path and file name of the file in the File Name field. Select Xmodem from the Protocol drop-down list, and then click Send.

When an external file is downloaded to the DUT, it is saved in the flash memory and does not take effect immediately. You need to use the related configuration commands. After upgrading the host and bootrom, you need to restart the DUT. When you download the configuration file, it will overwrite the original configuration file in flash. You need to use the downloaded configuration file in the privilege mode: "copy startup-config running-config". Refer to the ssh module user manual for key usage.

#### 1.1.1 Configure file download

Configure file download

Operation	Command	Remarks
privilege configuration mode	-	-
Upgrade the master host file	xmodem: load application xmodem	optional
	tftp: load application tftp inet[6] <i>server-ip xxx.arj</i>	required
	ftp: load application ftp inet[6] <i>server-ip xxx.arj</i> grn 123	optional
Upgrade the backup host file	ftp: load secondary application ftp inet[6] <i>server-ip xxx.arj</i> grn 123	required
Upgrade the bootrom file	xmodem: load whole-bootrom xmodem	optional
	tftp: load whole-bootrom tftp inet[6] <i>server-ip xxx.bin</i>	required
	ftp: load whole-bootrom ftp inet[6] <i>server-ip xxx.bin</i> grn 123	optional
Download the	xmodem: load configuration xmodem	optional

configuration file	tftp: load configuration tftp inet[6] <i>server-ip xxx.txt</i>	required
	ftp: load configuration ftp inet[6] <i>server-ip xxx.txt</i> grn 123	optional
Download the ssh key	tftp: load keyfile private tftp[6] <i>server-ip xxx.txt</i> load keyfile public tftp[6] <i>server-ip xxx.txt</i>	required
	ftp: load keyfile private ftp[6] <i>server-ip xxx.txt</i> grn 123 load keyfile public ftp[6] <i>server-ip xxx.txt</i> grn 123	optional
Use the backup host program at boot time	startup secondary application	optional
Use the host program at boot time	no startup secondary application	optional

---

 Note:

Run the main host application by default.

---

### 1.1.2 Configuration Example for File Download

#### 1. Network requirements

The DUT connects to the file server to ensure proper communication;

#### 2. Configuration steps

# Check that the DUT and the file server are communicating properly;

```
Switch#ping 192.168.1.99
```

```
PING 192.168.1.99: with 32 bytes of data:
```

```
reply from 192.168.1.99: bytes=32 time<10ms TTL=64
```

```
----192.168.1.99 PING Statistics----
```

```
4 packets transmitted, 4 packets received, 0% packet loss
```

```
round-trip (ms) min/avg/max = 0/0/0
```

```
Control-C
```

```
# Upgrade the host file
```

```
Switch#load application tftp 192.168.1.99 host.arj
```

```
Downloading application via TFTP..
```

```
Download application via TFTP successfully.
```

```
EPON(onu-0/1/1)#onu-bandwidth unknown-ucast downstream 300000
```

```

# Upgrade the bootrom file
Switch#load whole-bootrom tftp 192.168.1.99 bootrom_rom.bin

# Reboot and use the downloaded host and bootrom files
Switch#reboot

# Download the configuration file
Switch#load configuration tftp 192.168.1.99 test.txt
Startup config will be updated, are you sure(y/n)? [n]y
Downloading config file via TFTP...
Download config file via TFTP successfully.
# Use the downloaded configuration file
Switch#copy startup-config running-config
Running config will be updated, are you sure(y/n)? [n]y
Start to load startup-config, please wait for a while ...
Load successfully
  
```

## 1.2 Overview for File Upload

File uploading refers to uploading files in DUT flash to external file servers, such as host files, configuration files, ssh key files, and log files in the upgrade file for analysis, backup, or migration to other compatible devices.

It is recommended that the uploaded file name is the same suffix as the file download: Host file name suffix is .arj; bootrom file name suffix is .bin; configuration file name suffix is .txt; ssh key file name suffix is .txt.

Support upload tools including tftp, ftp.

### 1.2.1 Configure File Upload

Configure File Upload

Operation	Command	Remarks
Enter privilege mode	-	-
Upload the host file	tftp: upload application tftp inet[6] <i>server-ip xxx.arj</i>	required
	ftp: upload application ftp inet[6] <i>server-ip xxx.arj</i> grn 123	optional
Upload the log file	tftp: upload logging tftp inet[6] <i>server-ip xxx.arj</i>	required
	ftp: upload logging ftp inet[6] <i>server-ip xxx.arj</i> grn 123	optional
Save the current configuration to flash	copy running-config startup-config	required
Upload the	tftp: upload configuration tftp inet[6] <i>server-ip xxx.arj</i>	required

configuration file	ftp: upload configuration ftp inet[6] <b>server-ip xxx.arj</b> grn 123	optional
Automatically upload the configuration file	tftp: upload automatically configuration tftp inet[6] <b>server-ip xxx.txt</b> per hours <b>hours</b> minutes <b>minutes</b>	required
configuration file	ftp: upload automatically configuration ftp inet[6] <b>server-ip xxx.txt</b> grn 123 per hours <b>hours</b> minutes <b>minutes</b>	optional
Upload the ssh key	tftp: upload keyfile private tftp[6] <b>server-ip xxx.txt</b> upload keyfile public tftp[6] <b>server-ip xxx.txt</b>	required
	ftp: upload keyfile private ftp[6] <b>server-ip xxx.txt</b> grn 123 upload keyfile public ftp[6] <b>server-ip xxx.txt</b> grn 123	optional

## 1.2.2 Configuration Example for File Upload

### 1. Network requirements

The DUT connects to the file server to ensure proper communication.

### 2. Configuration steps

# Check that the DUT and the file server are communicating properly

```
Switch#ping 192.168.1.99
```

```
PING 192.168.1.99: with 32 bytes of data:
```

```
reply from 192.168.1.99: bytes=32 time<10ms TTL=64
```

```
----192.168.1.99 PING Statistics----
```

```
4 packets transmitted, 4 packets received, 0% packet loss
```

```
round-trip (ms) min/avg/max = 0/0/0
```

```
Control-C
```

# Upload the host file

```
Switch#upload application tftp 192.168.1.99 host.arj
```

```
Uploading APP file via TFTP..
```

```
Upload APP file via TFTP successfully.
```

# Save the current configuration to flash

```
Switch#copy running-config startup-config
```

```
Startup config in flash will be updated, are you sure(y/n)? [n]y
```

```
Building, please wait...
```

```
Update startup config successfully.
```

```
# Upload a configuration file to an external server
Switch#upload configuration tftp 192.168.1.99 text.txt
Uploading config file via TFTP...
Upload config file via TFTP successfully.
```

```
# Upload the files in the current flash to the file server
Switch#upload logging tftp 192.168.1.99 logg.txt
Uploading syslog file via TFTP...
Upload syslog file via TFTP successfully.
```

## 1.3 Decompilation Configuration

### 1.3.1 Overview for Decompilation Configuration

Device configuration can be divided into two sources: the first is called the default configuration, that does not require user configuration. After the DUT is powered on for the first time, or after the startup configuration is cleared, the existing configurations, such as the admin user, ensure that the DUT satisfies the simple usage environment. The second configuration is to increase or modify the configuration, such as creating vlan 2, modifying pvid = 2.

Device configuration can be divided into three types by saving: The first one is called temporary cache configuration or the current running configuration, such as creating vlan 2. This configuration does not exist after the DUT restarts. The second configuration is called the startup configuration, which can be loaded (either automatically or manually) after the DUT is restarted. The first configuration can be saved to the startup configuration with the command. The third configuration is saved in the flash. In the configuration, a small number of particularly important configuration will be saved directly to the flash: such as stacking configuration, user name configuration; stacking configuration will not enter the decompilation, that is, "show running" will not show, it can only be displayed by the show command in the module. User name configuration will enter the decompilation, that is, "show running" will show, it can also be displayed by the show command in the module. The configuration in Flash is permanent and does not need to be saved with commands. If you want to delete the flash configuration, you can only delete it through the corresponding no command in the module.

### 1.3.2 Basic Commands for Decompilation

Configure Decompilation

Operation	Command	Remarks
View the decompilation of the current	show running-config [ <b>module</b>   interface ethernet <b>port-num</b> ]	required

configuration		
View the startup configuration	show startup-config [ <i>module</i> ]	required
Save the current configuration to the startup configuration	copy running-config startup-config	required
Load the startup configuration at reboot	During the restart process,the default is to load the configuration automatically after 6s.Press "enter" according to the prompt message to load immediately	required
Do not load the startup configuration at reboot	During the restart process, Press "ctrl + c" according to the prompt message	optional
Load the boot configuration at the command line	copy startup-config running-config	required
Clear the startup configuration	clear startup-config	required

### 1.3.3 Configure the Switchover of File Execution Mode

You can change the execution mode of the configuration file through the command line interface. The system-saved configuration file can be executed in both interruptible and non-interruptible modes. When an error is encountered while executing the configuration file, execution in the interruptible mode stops immediately and echoes the error. In non-interruptible mode, execution is not stopped, the error is echoed, and the configuration file continues execution. The default is non-interruptible mode.

Configure the Switchover of File Execution Mode

Operation	Command	Remarks
Set the execution mode to interruptible	buildrun mode stop	Optional. Execute in privileged mode
Set the execution mode to non-interruptible	buildrun mode continue	Optional. Execute in privileged mode

### 1.3.4 Configuration Example for Decompilation

#### 1. Configuration Example

# View the decompilation of the current configuration

```
Switch#show running-config
```

```
!LanSwitch BuildRun
```

```
enable
```

```
configure terminal
![DEVICE]
interface ethernet 0/1
exit
interface ethernet 0/2
exit
interface ethernet 0/3
exit
interface ethernet 0/4
exit
interface ethernet 0/5
exit
interface ethernet 0/6
exit
interface ethernet 0/7
exit
interface ethernet 0/8
exit
.....
```

```
# Save the current configuration to the startup configuration:
Switch#copy running-config startup-config
Startup config in flash will be updated, are you sure(y/n)? [n]y
Building, please wait...
Update startup config successfully.
```

```
# Use the startup configuration
Switch#copy startup-config running-config
Running config will be updated, are you sure(y/n)? [n]y
Start to load startup-config, please wait for a while ...
Load successfully.
```