

Access level switches,
industrial switches

MES14xx, MES24xx, MES3708P

Guide for firmware and bootloader version update

SYSTEM FIRMWARE AND BOOTLOADER UPDATE VIA CLI



During the process of system firmware or the bootloader update, you should not disable the power or reboot the device.

Update should be performed using CLI.

To update the firmware and bootloader using the CLI, you need to connect to the switch using a terminal program (such as HyperTerminal) via Telnet or SSH, or via the serial port.

Terminal program configuration when connecting to the switch via serial port:

1. Select the corresponding serial port;
2. Set the data transfer rate to 115200 bit/s;
3. Specify the data format: 8 data bits, 1 stop bit, non-parity;
4. Disable hardware and software data flow control;
5. Specify VT100 terminal emulation mode (many terminal applications use this emulation mode by default).



For switch models MES1428, MES2408, MES2428, MES3708P, the mes2400-xxxx-xxxx.iss firmware file and the mes2400-xxxx-xxxx.boot bootloader file are used.

For switch model MES2424, the mes2424-xxxx-xxxx.iss firmware file and the mes2424-xxxx-xxxx.boot bootloader file are used.

For switch model MES2448, the mes2448-xxxx-xxxx.iss firmware file and the mes2448-xxxx-xxxx.boot bootloader file are used.

1. Bootloader file upload to non-volatile switch memory

To upload the bootloader file, you need to enter the following command in the CLI:

```
copy tftp://<ip-address>/filename boot,
```

where

- *<ip address>* – IP address of the TFTP server from which the bootloader file will be downloaded;
- *filename* – bootloader file name.

The copying process looks as follows:

```
console# copy tftp://<ip-address>/filename.boot boot
Erasing bootloader sector and starting copy operation...
...Completed: 10 %...
...Completed: 20 %...
...Completed: 30 %...
...Completed: 40 %...
...Completed: 50 %...
```

```

...Completed: 60 %...
...Completed: 70 %...
...Completed: 80 %...
...Completed: 90 %...
Copied tftp://<ip-address>/filename.boot ==> boot

```

If the bootloader file upload was successful, the following message will appear:

```
Copied tftp://<ip-address>/filename.boot ==>boot
```

Proceed to section 2 of the instruction.



If the update process is interrupted by the %Copied invalid bootloader file message, you need to check the integrity of the bootloader file on the tftp server.

If the update process is interrupted by the %Unable to copy remote bootloader file message, you need to check:

- TFTP server availability
- Availability of the file and its correspondence to the device model.

After correcting the errors, you need to repeat the download of the bootloader file and proceed to section 2.

2. System firmware file upload to non-volatile switch memory

To upload the system firmware file you need to enter the following command in the CLI:

```
copy tftp://<ip-address>/filename image,
```

where

- *<ip address>* – IP address of the TFTP server from which the system firmware file will be downloaded;
- *filename* – firmware file name.

The copying process looks as follows:

```

console# copy tftp://<ip-adress>/filename.iss image
Erasing image sector and starting copy operation...
...Completed: 10 %...
...Completed: 20 %...
...Completed: 30 %...
...Completed: 40 %...
...Completed: 50 %...
...Completed: 60 %...
...Completed: 70 %...
...Completed: 80 %...
...Completed: 90 %...
Copied tftp://<ip-adress>/filename.iss image ==> image

```

If the firmware file upload was successful, the following message will appear:

```
Copied tftp://<ip-address>/filename.iss ==>image
```

Proceed to section 3 of the instruction.



If the update process is interrupted by the %Copied invalid image message, you need to check the integrity of the bootloader file on the tftp server.

If the update process is interrupted by the %Unable to copy remote image message, you need to check:

- TFTP server availability
- Availability of the file and its correspondence to the device model.

After correcting the errors, you need to repeat the download of the firmware file and proceed to section 3.

3. Selecting the system firmware file that will be active after rebooting the switch

The system firmware file is loaded into the inactive memory area by default (inactive image) and will be active after the switch is rebooted.

4. Switch reboot

To reboot the device, execute the `reload` command.

SYSTEM FIRMWARE UPDATE VIA WEB INTERFACE



Do not disable the power or reboot the device during the system firmware update.

If the switch has previously been used with version 10.2.3 and lower, enable the web interface by entering the following command on the switch command line:

```
(config)# set ip http enable
```

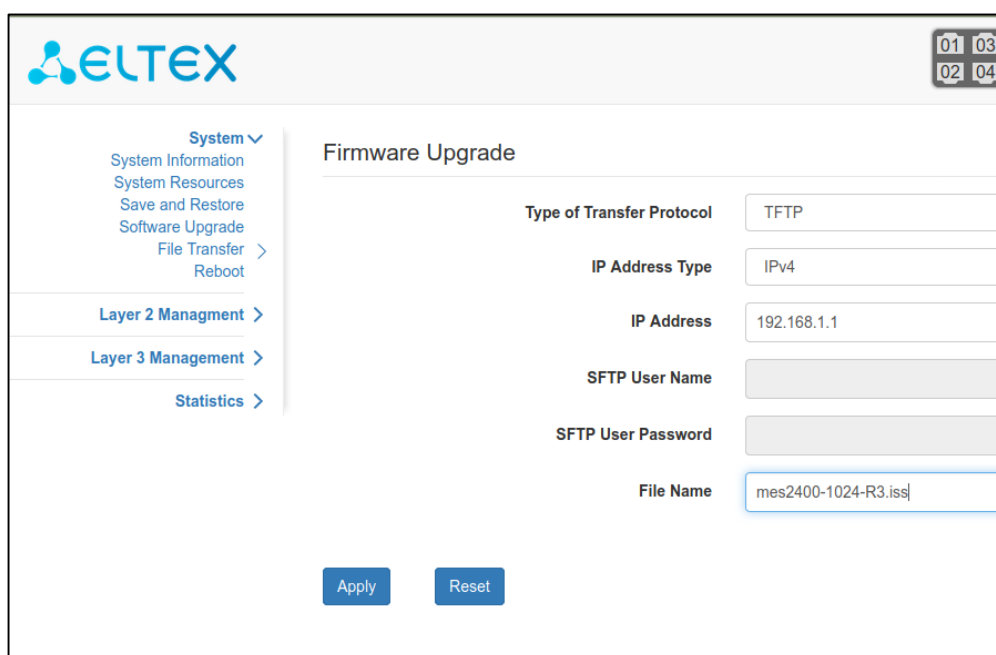
To update the system firmware using the web interface, connect to the switch via HTTP by entering the following address in your browser:

```
http://<ip-address>/
```

where

- *<ip-address>* — switch IP address

1. System firmware file upload to non-volatile switch memory



To upload a system firmware file to non-volatile switch memory, go to **System -> Firmware upgrade**.

Enter the **TFTP server** address in the **IP address** field. In the **File name** field, enter the firmware file name in the following format: **mes24xx-xxxx-xxx.iss**.

After clicking on the **Apply** button, the file upload will begin.



For switch models MES1428, MES2408, MES2428, MES3708P, the mes2400-xxxx-xxx.iss firmware files are used.

For switch model MES2424, the mes2424-xxxx-xxx.iss firmware files are used.

For switch model MES2448, the mes2448-xxxx-xxx.iss firmware files are used.

When the file upload is complete, the following window will be opened:



Then proceed to section 2.



If the update process is interrupted with an error, check:

- Integrity of the firmware file on the TFTP server
- TFTP server availability
- File availability and correspondence to the device model.

After the errors have been corrected, repeat the download of the firmware file and proceed to section 2.

2. Selecting the system firmware file that will be active after rebooting the switch

The system firmware file is loaded into the inactive memory area (inactive image) by default and will be active after the switch is rebooted.

3. Switch reboot

To reboot the device, go to the **System->Reboot** tab and click **Reboot**.

