



QuantaMesh

Ethernet Switch

QNOS2 to QNOS5

Upgrading Guide

LY2R

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1. Upgrade Firmware to QNOS5

Note:

This document only applied to upgrading firmware from v1.4.x.x to v5.4.x.x on T3048-LY2R, please use correct firmware to upgrading.

Before you upgrade firmware, please make sure if you have SD card and ONIE installed or not. Please see appendix about how to determine if switch has SD card and ONIE installed.

If switch does not has SD card installed, please install flash version. And the flash version supports only single image. Otherwise, install the SD card version.

If the switch has SD card and has ONIE installed, please ignore step 1.1 ~ 1.3.

For BMS (1LY2BZZ000W, 1LY2BZZ000X, 1LY2BZZ0015, 1LY2BZZ0016) without OS installed, please ignore step 1.1 ~ 1.3.

If you upgrade firmware from version 1.4.x.x to QNOS5, system will lost formal license key, please contact Quanta sales to request license key before you upgrade.

1.1.Backup your existing configuration file

The following procedures will destroy your file system. Please backup your current configuration first. Please be aware that there are some command differences between QNOS 2 (v1.4.x.x) and QNOS 5 (v5.4.x.x). Therefore, when you restore back the configuration, you may get failed command prompt.

1.2.Initialization Stage

1. Connect MGMT port to your management network. Assume your TFTP and DHCP server are located at this network.
2. Prepare the TFTP server (assume IP address is 192.168.2.100) and put the installer onto TFTP root directory.
3. Connect the console cable to the console port, on a terminal emulation program (such as Teraterm or HyperTerm), set the baud rate to 115200 (115200, n, 8, 1).

1.3.Change to ONIE Environment from Legacy Uboot

Note:

If your switch part number is 1LY3BZZ0ST6 or 1LY3BZZ0ST7 (BMS switch), please skip this section and go to 1.3 Install the ONIE Installer since it already have ONIE environment preloaded.



1. Go to uboot by press any key when see “Hit any key to stop autoboot”.

```
PCIe1: Bus 00 - 01
In:    serial
Out:   serial
Err:   serial
Net:   eTSEC1: PHY is Broadcom BCM5461S (2060c1)
eTSEC1
Hit any key to stop autoboot: 0
WARNING: adjusting available memory to 30000000
```

2. Then run the following under uboot prompt.

```
=> setenv ipaddr <switch ip addr>
```

```
=> setenv serverip <server ip addr>
```

```
=> setenv start 0xefb60000
```

```
=> setenv sz.b 0x4a0000
```

```
=> tftp ly2r-onie-2015.05-v1.2-9d597eb.bin
```

(please change to correct ONIE uboot name)

```
=> protect off $start +${sz.b} && erase $start +${sz.b}
```

```
=> cp.b $loadaddr $start ${sz.b} && protect on $start +${sz.b}
```

```
=> reset
```

1.4.Boot into ONIE Environment

3. Reboot switch and press any key when see “Hit any key to stop autoboot”.
4. Run the following command to enter ONIE rescue mode.

```
run onie_rescue
```

```
Hit any key to stop autoboot: 0
=>
=> run onie_rescue
Loading Open Network Install Environment ...
Platform: powerpc-quanta_ly8_p2020-r0
Version : 2014.05.13-8817992
```

1.5.Install the ONIE Installer

1. When see the following prompt, press [enter] key.



```
Please press Enter to activate this console.
To check the install status inspect /var/log/onie.log.
Try this: tail -f /var/log/onie.log

** Rescue Mode Enabled **
ONIE:/ #
```

2. Manually set switch IP address (if MGMT port connect to a DHCP server, it will get IP address from DHCP server automatically).

```
ONIE:/ # ifconfig eth0 192.168.2.1
```

3. Manually specify the download URL.

```
ONIE:/ # install_url tftp://<server ip addr>/<file name>
```

```
Please press Enter to activate this console.
To check the install status inspect /var/log/onie.log.
Try this: tail -f /var/log/onie.log

** Rescue Mode Enabled **
ONIE:/ #
ONIE:/ # ifconfig eth0 192.168.2.1
ONIE:/ # install_url tftp://192.168.2.100/onie-installer-quanta lv2r p2020
Stopping: discover... done.
```

2. Install the (Demo) License Key

Note:

If you upgrade firmware from version 1.4.x.x to QNOS5, system will lost formal license key, please contact Quanta sales to request license key.

If you evaluate the QNOS5, please install the Demo license.

1. Put (demo) license key on the TFTP root directory.
2. Boot the switch to the normal mode, when prompted for the username and password, input "admin" for the username and leave the password empty.
3. Set the service port IP address (in the example below, the service port IP address is set to 192.168.2.1):

```
configure
```

```
serviceport protocol none
```

```
serviceport ip 192.168.2.1 255.255.255.0
```

```
exit
```

4. Use the following command to download the license key.

```
copy tftp://<server ip addr>/<license key file name> license-key
```



```
(Switch) #
(Switch) #copy tftp://192.168.2.100/license-trial-2m.dat license-key

Mode..... TFTP
Set Server IP..... 192.168.2.100
Path..... /
Filename..... license-trial-2m.dat
Data Type..... license

Management access will be blocked for the duration of the transfer
Are you sure you want to start? (y/n) y
```

5. Reload the switch.

`reload`

3. Appendix

1. Login to switch by console, enter command “linuxsh”. When see login prompt, please use root/root123 to login to the switch.
2. Enter “mount” command and check if there is /dev/mmc* device.
3. If there is no any /dev/mmc* device, then use below command to try to mount sd card.

`mkdir /test`

`mount /dev/mmcbk0p1 /test`

```
[root@~]#mount
rootfs on / type rootfs (rw)
/dev/root on / type ext3 (rw,relatime,errors=continue,barrier=0,
proc on /proc type proc (rw,relatime)
devpts on /dev/pts type devpts (rw,relatime,mode=600)
/dev/mtdblock0 on /mnt/flash type jffs2 (rw,noatime,nodiratime)
tmpfs on /mnt/application type tmpfs (rw,relatime,size=204800k)
/dev/mmcbk0p1 on /test type ext2 (rw,relatime,errors=continue)
[root@~]#
```

4. If you can see /dev/mmcbk0p1, then switch has SD card installed, otherwise, the switch doesn't have SD card.
5. Use command “exit” to go back to Quanta OS.
6. Use command “show version” to check if you already have ONIE installed. If there is ONIE keyword as below example output, then you already have ONIE installed.

```
(Quanta) #sho ver
Switch: 1
System Description..... LY2R, Runtime Code 1.4.20.00, Linux 2.6.35, ONIE
Machine Type..... LY2R
Machine Model..... QUANTA LY2R
Serial Number..... QTFCEA6370003
```





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QCT (Quanta Cloud Technology) is a global datacenter solution provider extending the power of hyperscale datacenter design in standard and open SKUs to all datacenter customers.

Product lines include servers, storage, network switches, integrated rack systems and cloud solutions, all delivering hyperscale efficiency, scalability, reliability, manageability, serviceability and optimized performance for each workload.

QCT offers a full spectrum of datacenter products and services from engineering, integration and optimization to global supply chain support, all under one roof.

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