



Upgrading the OmniSwitch 9000 C20L Module

Overview

This instruction sheet documents how to upgrade the C20L Module on OmniSwitch 9000 Series switches. The C20L Module is manufactured as limited to operate up to 100 Mbits/sec speed on the 20 copper ports. However, with an upgrade license key, you can upgrade the board to operate at 1,000 Mbits/sec.

If you are upgrading a single module, you can obtain a single upgrade key, as described in [Obtaining a Single Upgrade License Key on page 2](#). If you are upgrading more than one module, you can obtain multiple upgrade keys, as described in [Obtaining Multiple Upgrade License Keys on page 6](#).

Obtaining a Single Upgrade License Key

To obtain a single license key to upgrade a single module, you will need the Activation Code listed on your Software License Upgrade Certificate, the module's serial number, and the module's MAC address. Follow the steps below to create a single license key.

- 1 Obtain the Card ID (Activation Code) from the OS9-GNI-C29L Software License Upgrade Certificate.
- 2 Obtain the serial number and the MAC address for each module using the **show ni** *<slot_number>* CLI command as shown below: For example:

```
9800_C20L-> show ni 9
```

```
Module in slot 9
Model Name:                OS9-GNI-C20L,
Description:               RJ45 (Lite) SFP,
Part Number:               902434-90,
Hardware Revision:         A07,
Serial Number:              H03Q0007,
Manufacture Date:          JAN 31 2007,
Firmware Version:          ,
Admin Status:              POWER ON,
Operational Status:        UP,
Power Consumption:         49,
Power Control Checksum:    0x0,
MAC Address:                00:e0:b1:6a:43:d4,
ASIC - Physical 1:          BCM56504_B2
CPLD - Physical 1:          0010/00
UBOOT Version :             6.1.5.354.R01
UBOOT-miniboot Version :    No Miniboot
POE SW Version :            n/a
```

- 3 Go to the OmniSwitch 9000L Upgrade License Site:
http://www.alcatelbusinesspartner.com/eservice/os9000L_license/os9000L.cfm



OmniSwitch 9000L Upgrade License Site

Please, follow one of the two methods to create a License Key(s)

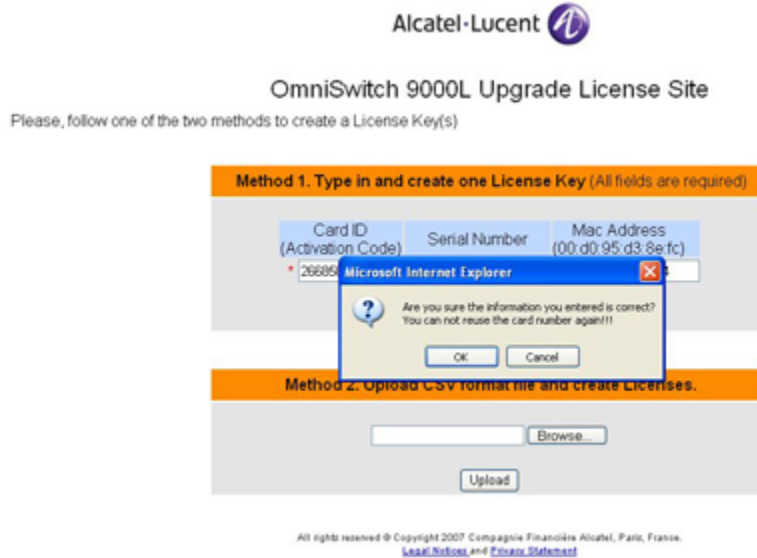
Method 1. Type in and create one License Key (All fields are required)

<div style="background-color: #add8e6; padding: 2px; font-size: 8px;">Card ID (Activation Code)</div> <input style="width: 90%; height: 20px;" type="text"/>	<div style="background-color: #add8e6; padding: 2px; font-size: 8px;">Serial Number</div> <input style="width: 90%; height: 20px;" type="text"/>	<div style="background-color: #add8e6; padding: 2px; font-size: 8px;">Mac Address (00 d0:95 d3:8e fc)</div> <input style="width: 90%; height: 20px;" type="text"/>
<input type="button" value="Submit"/>		

Method 2. Upload CSV format file and create Licenses.

License Screen

- 4 Enter the Card ID (Activation Code), as well as the serial number and MAC address of the module, then click **Submit**. The system will prompt you to verify the information.



Confirmation Screen

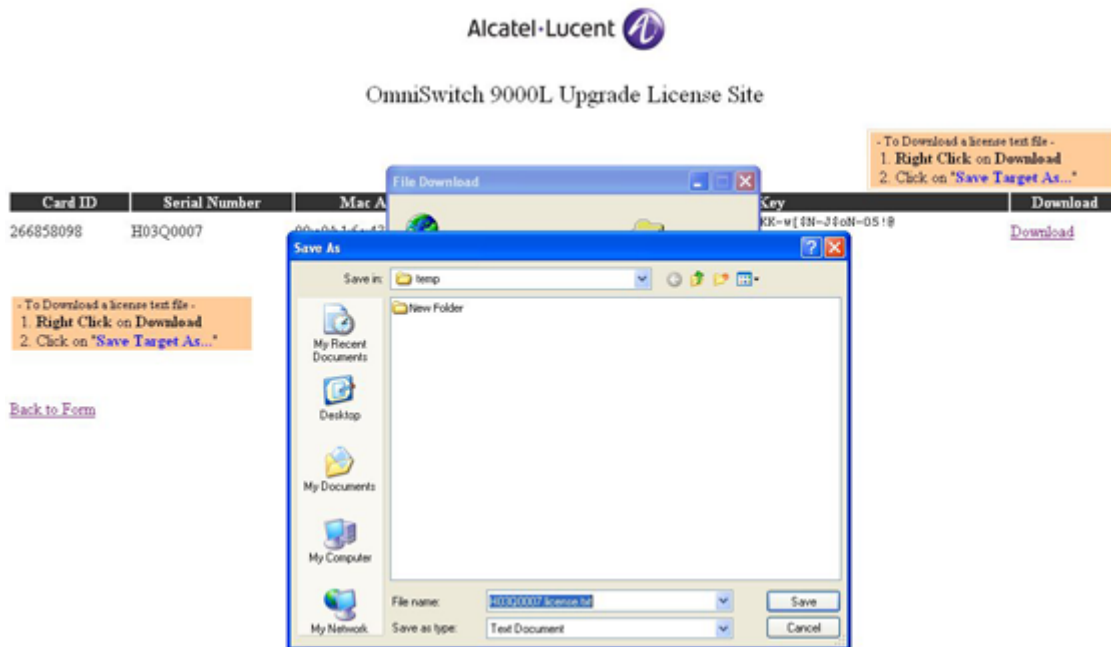
- 5 Verify the information and click **OK**. The system will generate the license key, as shown below.



Download Screen

- 6 Right-click on the **Download** link and click **Save Target As** to generate a text file.

By default, the file name will be saved as *<module serial number>* followed by license.txt file, unless you want to save it with a different file name. For example, if your serial number is H03Q0007, by default, the file will be saved as H03Q0007.license.txt.



Save Screen

- 7 Once the file is saved, transfer the file in ASCII format to the **/flash** directory of the switch.
- 8 Obtain the license key contained in the license.txt file using the **more** command. For example, to view the license key in the H03Q0007.license.txt file, you would enter:

```
-> more H03Q0007.license.txt
ys!R-dvp2-BhqJ-urZX-8$gK-00#N-J$oN-05If
```

- 9 Use the license key to perform the upgrade of the module using the **upgrade ni** command. For example, to upgrade NI number 9, you would enter:

```
-> upgrade ni 9 license-key "ys!R-dvp2-BhqJ-urZX-8$gK-00#N-J$oN-05If"
```

- 10 The module will take a moment to reset. When the following message is displayed, the upgrade is complete.

```
9800_C20L->
WED MAY 30 15:24:19 : INTERFACE (6) info message:
+++ NIs are ready 5649775
```

- 11 Verify the upgrade by executing the **show ni <slot_number>** CLI command. The Description field should contain 'Upgd' as shown below.

```
9800_C20L-> show ni 9
Module in slot 9
  Model Name:                OS9-GNI-C20L,
  Description:            RJ45 (Upgd) SFP,
  Part Number:               902434-90,
  Hardware Revision:         A07,
  Serial Number:             H03Q0007,
  Manufacture Date:          JAN 31 2007,
  Firmware Version:          ,
  Admin Status:              POWER ON,
  Operational Status:        UP,
  Power Consumption:         49,
  Power Control Checksum:    0x0,
  MAC Address:               00:e0:b1:6a:43:d4,
  ASIC - Physical 1:         BCM56504_B2
  CPLD - Physical 1:         0010/00
  UBOOT Version :            6.1.5.354.R01
  UBOOT-miniboot Version :   No Miniboot
  POE SW Version :           n/a
```

If the upgrade fails, a “C20L License Upgrade Failed” message will be displayed. For example:

```
-> upgrade ni 9 license-key "ys!R-dvp2-BhqJ-urZX-8$gK-00#N-J$oN-05IG"

C20L license upgrade failed

WARNING: malformed string

9800_C20L->

TUE JUN 12 10:58:39 : HSM-CHASSIS (101) info message:
+++ C20L ni 9: upgrade, invalid license key, failCont 1

TUE JUN 12 10:58:39 : CSM-CHASSIS (103) info message:
+++ == CSM ==

TUE JUN 12 10:58:39 : HSM-CHASSIS (101) info message:
+++ C20L license upgrade: Failed
```

Re-enter the license key (multiple attempts are allowed). If you are still unsuccessful, contact Customer Support. For more information, see [Failed Upgrade Attempts on page 12](#).

Obtaining Multiple Upgrade License Keys

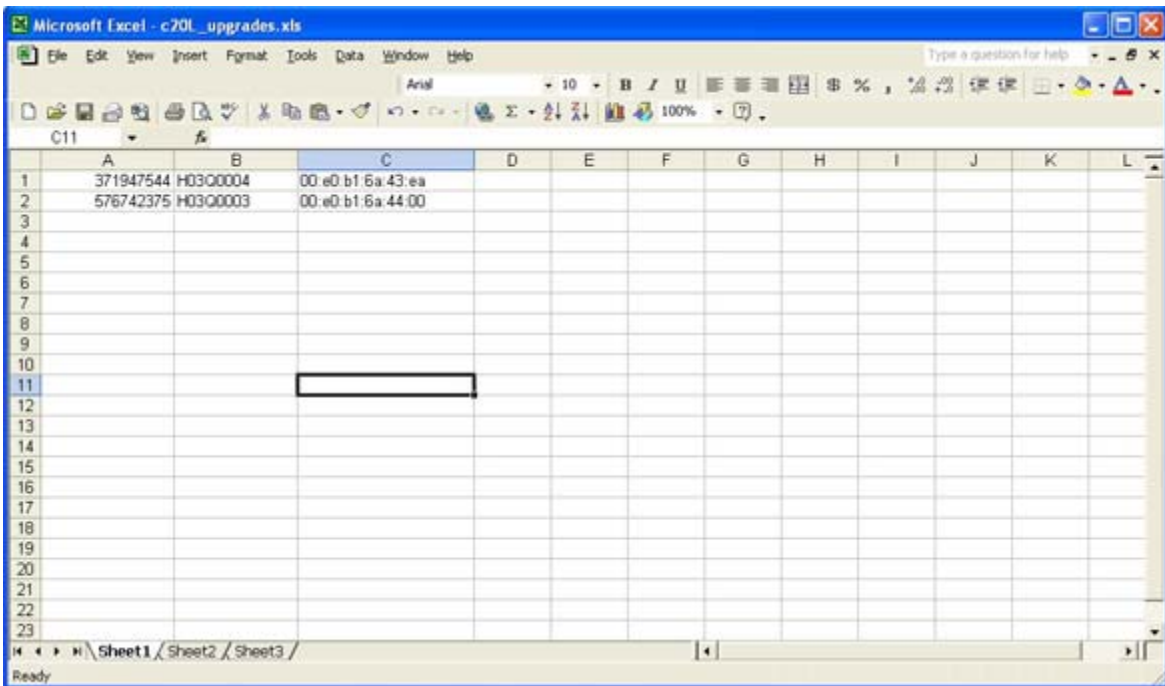
If you are upgrading a number of modules, you can create multiple license keys at once by uploading a CSV file containing the required upgrade information. To do so, you will need the Card ID (Activation Code) for each module (listed on the Software License Upgrade Certificate), and each module's serial number and MAC address. Follow these steps to upload a CSV format file and create multiple license keys.

- 1 Obtain the Card IDs (Activation Codes) for each module you are upgrading from the module's OS9-GNI-C29L Software License Upgrade Certificate.
- 2 Obtain the serial number and the MAC address for each module using the **show ni** *<slot_number>* CLI command as shown below: For example:

```
9800_C20L-> show ni 9
```

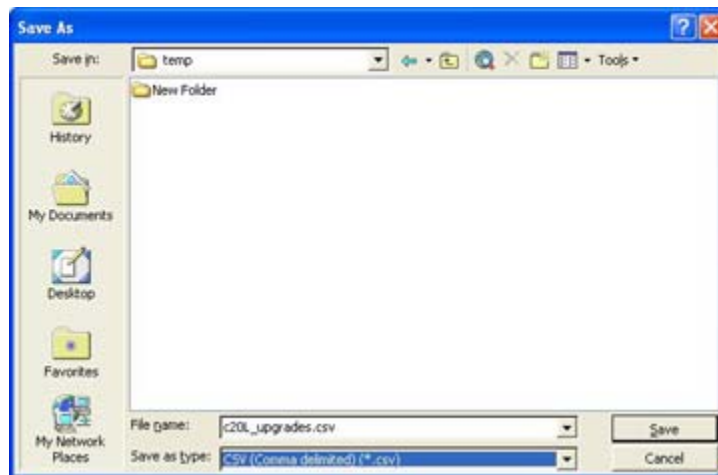
```
Module in slot 9
Model Name:                OS9-GNI-C20L,
Description:               RJ45 (Lite) SFP,
Part Number:               902434-90,
Hardware Revision:         A07,
Serial Number:              H03Q0007,
Manufacture Date:          JAN 31 2007,
Firmware Version:          ,
Admin Status:              POWER ON,
Operational Status:        UP,
Power Consumption:          49,
Power Control Checksum:    0x0,
MAC Address:                00:e0:b1:6a:43:d4,
ASIC - Physical 1:          BCM56504_B2
CPLD - Physical 1:          0010/00
UBOOT Version :             6.1.5.354.R01
UBOOT-miniboot Version :    No Miniboot
POE SW Version :            n/a
```

- 3 Create a CSV file containing the Activation Codes (Card IDs), Serial Numbers, and the MAC Addresses of the each module you want to upgrade. (This can done with many applications, including Microsoft Excel.) [Step a](#) through [Step f](#) show a typical example using Microsoft Excel:
 - a. Open Microsoft Excel.
 - b. Enter the Activation Code, serial number, and the MAC address of each module in a separate row as shown below. Make sure the parameters are in order, and that each parameters is in a separate column.



Sample CSV File

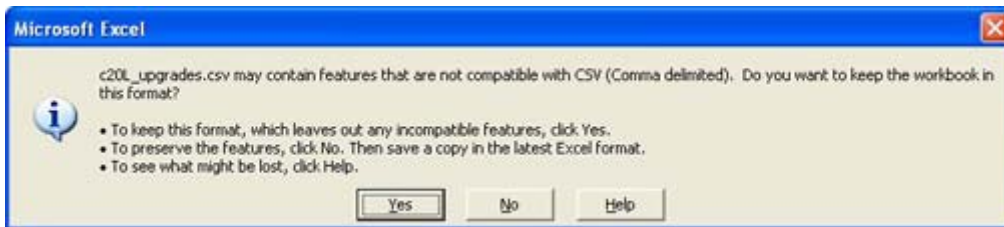
- c. Save the file in CSV format by selecting **Save As > CSV (Comma Delimited)** as shown below:



- d. Click **Save**. The following window will be displayed:



- e. Click **OK**. The following window will be displayed:



- f. Click **Yes**. The required information is now saved in CSV format.
- 4 Go to the OmniSwitch 9000L Upgrade License Site:
http://www.alcatelbusinesspartner.com/eservice/os9000L_license/os9000L.cfm



OmniSwitch 9000L Upgrade License Site

Please, follow one of the two methods to create a License Key(s)

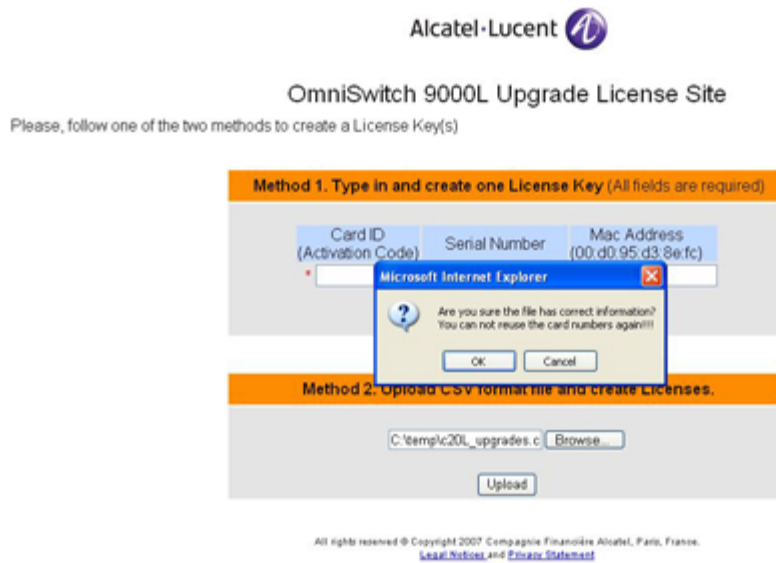
Method 1. Type in and create one License Key (All fields are required)

Card ID (Activation Code)	Serial Number	Mac Address (00 d0:95:d3 8e:fc)
<input type="text"/>	<input type="text"/>	<input type="text"/>

Method 2. Upload CSV format file and create Licenses.

License Screen

- 5 Click **Browse** to locate the CSV file you created, then click **Upload**. The system will prompt you to verify the information.



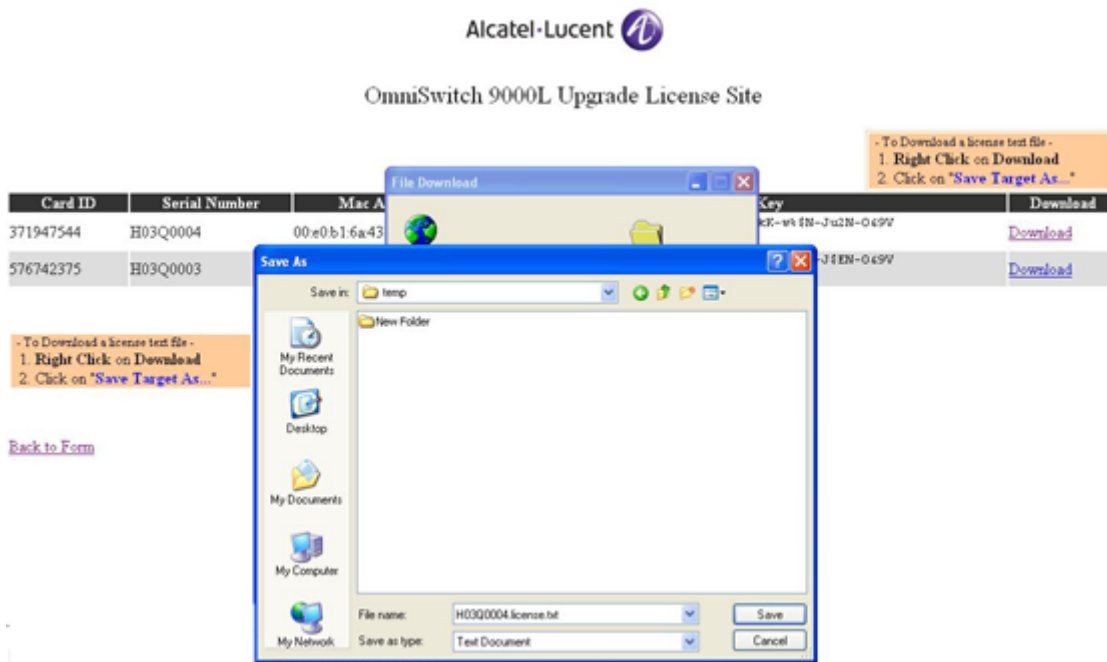
Confirmation Screen

- Click **OK**. The system will generate license keys for each module listed in the CSV file.



Download Screen

- For each license key, right-click the **Download** link and click **Save Target As** to generate a text file. By default, the file name will be saved as *<module serial number>* followed by license.txt file, unless you want to save it with a different file name. For example, if your serial number is H03Q0007, by default, the file will be saved as H03Q0007.license.txt.



Save Screen

- 8 Once the files are saved, transfer the file in ASCII format to the /flash directory of the switch containing the module(s) you want to upgrade.
- 9 Obtain the license key contained in the license file using the **more** command.

```
-> more H03Q0007.license.txt
```

```
ys!R-dvp2-BhqJ-urZX-8$gK-00#N-J$oN-05If
```

- 10 Use the license key to upgrade each module using the **upgrade ni** command. For example, to upgrade NI number 9, you would enter:

```
-> upgrade ni 9 license-key "ys!R-dvp2-BhqJ-urZX-8$gK-00#N-J$oN-05If"
```

- 11 The module will take a moment to reset, when the following message is displayed, the upgrade is complete.

```
9800_C20L->
```

```
WED MAY 30 15:24:19 : INTERFACE (6) info message:
```

```
+++ NIs are ready 5649775.
```

- 12 Verify the upgrade by executing the **show ni <slot_number>** CLI command. The Description field should contain 'Upgd' as shown below. For example:

```

9800_C20L-> show ni 9

Module in slot 9
Model Name:                OS9-GNI-C20L,
Description:           RJ45 (Upgd) SFP,
Part Number:               902434-90,
Hardware Revision:         A07,
Serial Number:             H03Q0007,
Manufacture Date:          JAN 31 2007,
Firmware Version:          ,
Admin Status:              POWER ON,
Operational Status:        UP,
Power Consumption:         49,
Power Control Checksum:    0x0,
MAC Address:               00:e0:b1:6a:43:d4,
ASIC - Physical 1:         BCM56504_B2
CPLD - Physical 1:         0010/00
UBOOT Version :            6.1.5.354.R01
UBOOT-miniboot Version :   No Miniboot
POE SW Version :           n/a

```

13 Repeat Steps 9 through 12 for each module you are upgrading.

If the upgrade fails, a “C20L License Upgrade Failed” message will be displayed. For example:

```

-> upgrade ni 9 license-key "ys!R-dvp2-BhqJ-urZX-8$gK-00#N-J$oN-05IG"

C20L license upgrade failed

WARNING: malformed string

9800_C20L->

TUE JUN 12 10:58:39 : HSM-CHASSIS (101) info message:
+++ C20L ni 9: upgrade, invalid license key, failCont 1
TUE JUN 12 10:58:39 : CSM-CHASSIS (103) info message:
+++ == CSM ==
TUE JUN 12 10:58:39 : HSM-CHASSIS (101) info message:
+++ C20L license upgrade: Failed

```

Re-enter the license key (multiple attempts are allowed). If you are still unsuccessful, contact Customer Support. For more information, see [Failed Upgrade Attempts on page 12](#).

Failed Upgrade Attempts

There is a finite number of upgrade attempts allowed on the module. After an excessive number of failed upgrade attempts, the C20L module will be locked and must be returned to Alcatel-Lucent to be reset. Use the **show ni** command to view the number of failed attempts (listed in the C20L Upgd FailCount field)

```
9800_C20L-> show ni 9

Module in slot 9
Model Name:           OS9-GNI-C20L,
Description:          RJ45 (Lite) SFP,
Part Number:          902434-90,
Hardware Revision:    A07,
Serial Number:        H03Q0007,
Manufacture Date:     JAN 31 2007,
Firmware Version:     ,
Admin Status:         POWER ON,
Operational Status:   UP,
Power Consumption:    49,
Power Control Checksum: 0x0,
MAC Address:          00:e0:b1:6a:43:d4,
ASIC - Physical 1:    BCM56504_B2
CPLD - Physical 1:    0010/00
UBOOT Version :       6.1.5.354.R01
UBOOT-miniboot Version : No Miniboot
POE SW Version :      n/a
C20L Upgd FailCount : 1
```

If the number of allowed upgrade attempts is exceeded, the Model Name and Description fields will read "Locked", as shown below.

```
9800_C20L-> show ni 9

Module in slot 9
Model Name:           OS9-GNI-LOCKED,
Description:          Locked,
Part Number:          902434-90,
Hardware Revision:    A07,
Serial Number:        H03Q0007,
Manufacture Date:     JAN 31 2007,
Firmware Version:     ,
Admin Status:         POWER ON,
Operational Status:   UNPOWERED,
Power Consumption:    49,
Power Control Checksum: 0x0,
MAC Address:          00:e0:b1:6a:43:d4,
ASIC - Physical 1:    /
CPLD - Physical 1:    /
UBOOT Version :       /
UBOOT-miniboot Version : /
POE SW Version :      n/a
```




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