Release Notes

BladeCenter Open Fabric Manager with Nortel/BNT Extensions
for Nortel Layer 2/3 GbE Switch Module
Version 40.0

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Release Notes

The Layer 2/3 GbE Switch Module is one of up to four GbE Switch Modules that can be installed in the IBM BladeCenter chassis.

These release notes provide the latest information regarding BladeCenter Open Fabric Manager with Nortel/BNT Extensions (BOFM Extensions*)* software for the Nortel Layer 2/3 GbE Switch Module. This supplement modifies information found in the complete documentation:

User's Guide for the BladeCenter Open Fabric Manager with Nortel/BNT Extensions for Nortel Layer 2/3 GbE Switch Module.

The publication listed above are available from the IBM support website:

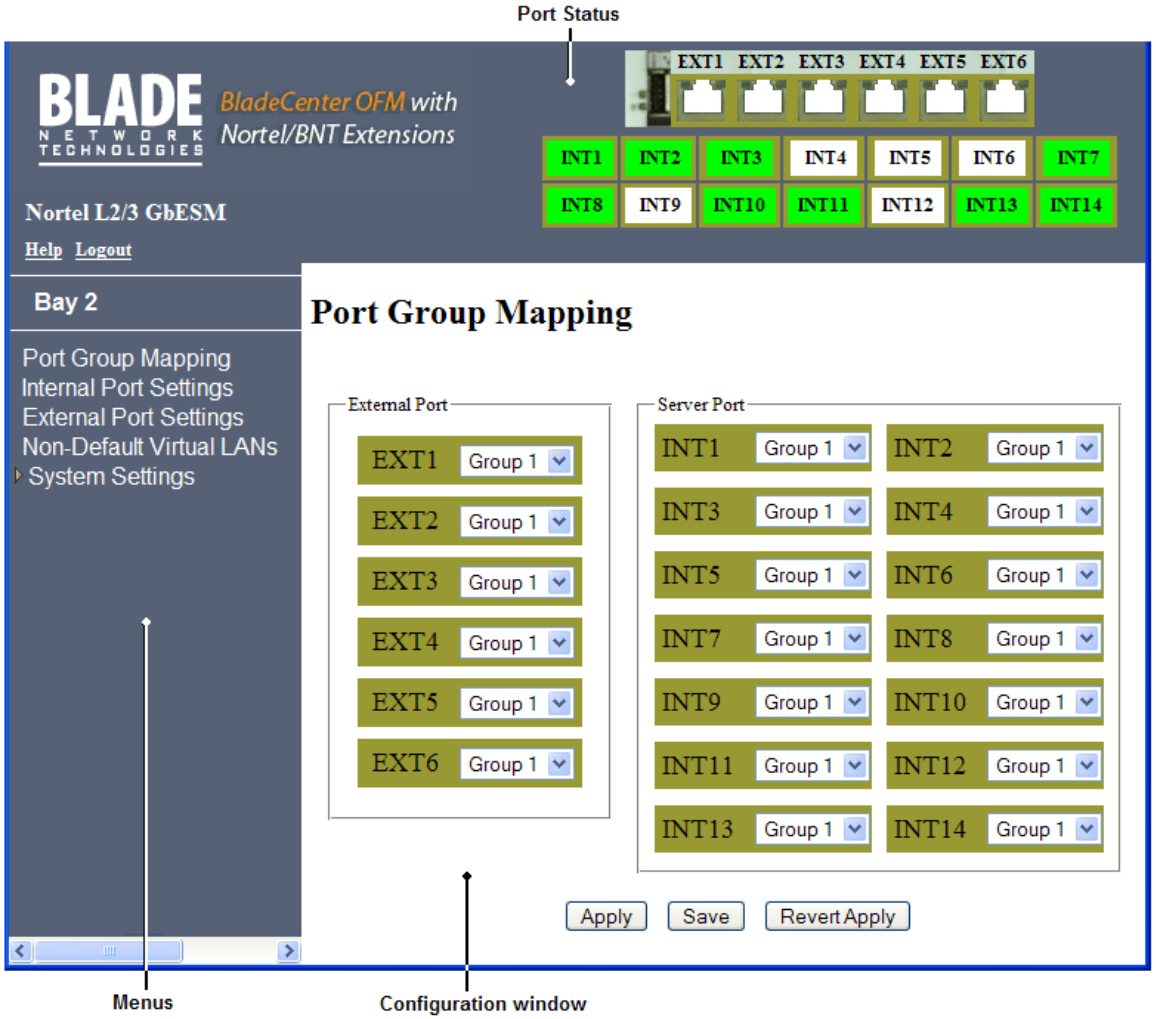
http://www.ibm.com/support

Please keep these release notes with your product manuals.

Overview

BladeCenter Open Fabric Manager with Nortel/BNT Extensions (BOFM Extensions) is a simplified software image that can be installed on the Layer 2/3 GbE Switch Module for IBM BladeCenter. BOFM Extensions software provides an easy-to-use Graphical User Interface and a reduced function set to minimize networking mis-configuration.

The figure below shows an example of the BOFM Extensions interface.



The BOFM Extensions software requires only basic administration tasks similar to those required to connect a single multi-linked server to the network. Connecting the BladeCenter with up to fourteen (14) server blades becomes as easy as connecting a single server to the network.

The default network configuration of the BOFM Extensions software consists of a single, untagged Virtual Local Area Network (VLAN). All of the uplink ports in each Port Group are aggregated together into a static Link Aggregation Group (LAG, or trunk group), which is fully compatible with Cisco EtherChannel technology. This configuration eliminates the need for Spanning Tree Protocol to prevent network loops, since the uplink ports act as a single link.

The BOFM Extensions software provides improved network reliability. All of the uplink ports in each Port Group participate in a static LAG, so if a link fails, the existing traffic is redirected to the other links.

Software Update Procedure

The switch software image is the executable code running the BOFM Extensions. A version of the image ships with the switch, and comes pre-installed on the device. As new versions of the image are released, you can upgrade the software running on your switch. To get the latest version of software available for your GbE Switch Module, go to:

`http://www.ibm.com/support`

Click on **`software updates`**. Use the `/boot/cur` command to determine the current software version.

The typical upgrade process for the software image consists of the following steps:

- Place the new image onto a FTP or TFTP server on your network, or on a local computer.
- Transfer the new image to your switch.
- Select the new software image to be loaded into switch memory the next time the switch is reset.

NOTE – The switch must be running Alteon OS software version 1.4 or higher before you load BOFM Extensions software.

Downloading New Software to the GbE Switch Module

The GbE Switch Module (GbESM) can store up to two different Operating System (OS) software images, called `image1` and `image2`, as well as boot software, called `boot`. When you download new software, you must specify where it should be placed: either into `image1`, `image2`, or `boot`.

For example, if your active OS image is currently loaded into `image1`, you would probably load the new image software into `image2`. This lets you test the new software and reload the original active image (stored in `image1`), if needed.

To download a new software to your switch, you will need the following:

- The image or boot software loaded on a FTP or TFTP server on your network
- The hostname or IP address of the FTP or TFTP server
- The name of the new software image or boot file

NOTE – The DNS parameters must be configured if specifying hostnames.

Image names:

- Image file: `GbESM-AOS-40.0.2.100_OS.img`
- Boot file: `GbESM-AOS-40.0.2.100_Boot.img`

When the above requirements are met, use the following procedure to download the new software to your switch.

NOTE – When performing this update, make sure you download the new boot file and the new image file.

Using the AOS CLI:

1. **At the `Boot Options#` prompt, enter:**

```
Boot Options# gtimg
```

2. **Enter the name of the switch software to be replaced:**

```
Enter name of switch software image to be replaced
 ["image1"/"image2"/"boot"]: <image>
```

3. **Enter the hostname or IP address of the FTP or TFTP server.**

```
Enter hostname or IP address of FTP/TFTP server: <name or IP address>
```

4. **Enter the name of the new software file on the server.**

```
Enter name of file on FTP/TFTP server: <filename>
```

The exact form of the name will vary by server. However, the file location is normally relative to the FTP or TFTP directory (usually `/tftpboot`).

5. **Enter your username for the server, if applicable.**

```
Enter username for FTP server or hit return for TFTP server: <user-
name> or <Enter>
```

6. **The system prompts you to confirm your request.**

Use the following procedure to select which OS software image (`image1` or `image2`) you want to run in switch memory for the next reboot.

7. **At the `Boot Options#` prompt, enter:**

```
Boot Options# image
```

8. **Enter the name of the image you want the switch to use upon the next boot.**

The system informs you of which image is currently set to be loaded at the next reset, and prompts you to enter a new choice:

```
Currently set to use switch software "image1" on next reset.
Specify new image to use on next reset ["image1"/"image2"]:
```

Using the ISCLI:

1. **In Privileged EXEC mode, enter the following command:**

```
Router# copy tftp {<image1|image2|boot-image>}
```

or

```
Router# copy ftp {<image1|image2|boot-image>}
```

2. **Enter the hostname or IP address of the FTP or TFTP server.**

```
Address or name of remote host: <name or IP address>
```

3. **Enter the name of the new software file on the server.**

```
Source file name: <filename>
```

The exact form of the name will vary by server. However, the file location is normally relative to the FTP or TFTP directory (usually `tftpboot`).

4. **Enter your username and password for the server, if applicable.**

```
User name: <username>|<Enter>
```

5. **The system prompts you to confirm your request.**

After loading software to the switch, select a software image to run, as described below.

Use the following procedure to select which OS software image (`image1` or `image2`) you want to run in switch memory for the next reboot.

6. **In Global Configuration mode, enter:**

```
Router(config)# boot image {image1|image2}
```

7. **Enter the name of the image you want the switch to use upon the next boot.**

The system informs you of which image set to be loaded at the next reset:

```
Next boot will use switch software image1 instead of image2.
```

Using the BBI:

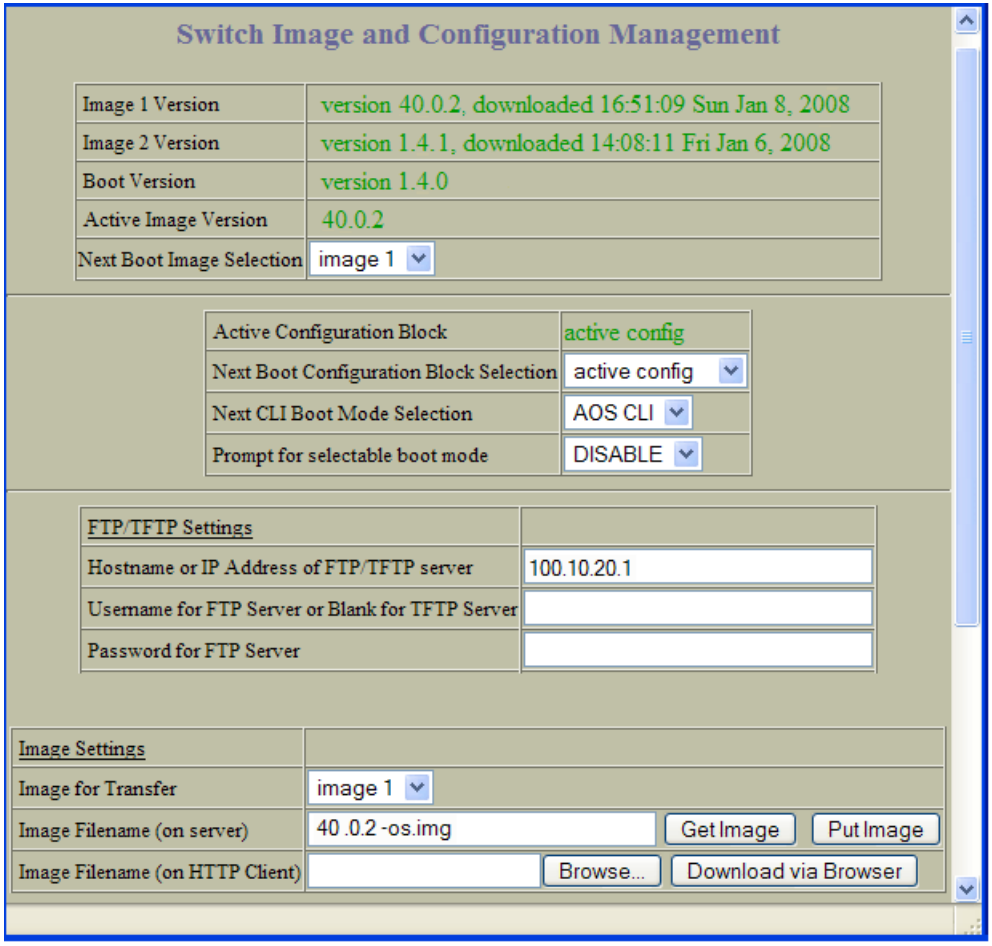
You can use the Browser-Based Interface to load software onto the GbESM. The software image to load can reside in one of the following locations:

- FTP server
- TFTP server
- Local computer

After you log onto the BBI, perform the following steps to load a software image:

1. **Click the** Configure **context tab in the toolbar.**
2. **In the Navigation Window, select** System > Config/Image Control**.**

   The Switch Image and Configuration Management page appears.



3. **If you are loading software from your computer (HTTP client), go to step 4.**
   If you are loading software from a FTP/TFTP server, enter the server's information in the FTP/TFTP Settings section.

4. **In the Image Settings section, select the image version you want to replace (Image for Transfer).**

   - **If you are loading software from a FTP/TFTP server, enter the file name and click** Get Image.
   - **If you are loading software from your computer, click** Browse.
     In the File Upload Dialog, select the file and click OK.
     Click Download via Browser.

   Once the image has loaded, the page refreshes to show the new software.

Supplemental Information

This section provides additional information about configuring and operating the GbE Switch Module and BOFM Extensions software version 40.0

Management Module

- The “Fast POST=Disabled/Enabled” inside the IBM management module Web interface “I/O Module Admin Power/Restart” does not apply to the GbE Switch Module.

  Solution: To boot with Fast or Extended POST, go to the “I/O Module Admin Power/Restart” window. Select the GbE Switch Module, and then choose “Restart Module and Run Standard Diagnostics” or “Restart Module and Run Extended Diagnostics.”

- The following table correlates the Firmware Type listed in the IBM management module’s Web interface “Firmware VPD” window to the GbE Switch Module software version:

  Table 1 Firmware Type list

Firmware Type	Description
Boot ROM	GbE Switch Boot code version
Main Application 1	Active image GbE Switch software
Main Application 2	Backup image GbE Switch software

- Within the IBM management module Web interface, the Java applets of “Start Telnet Session” and “Start Web Session” do not support changing of default known ports 23 and 80 respectively.

  Solution: If the Telnet or HTTP port on the GbE Switch Module is changed to something other than the default port number, the user must use a separate Telnet client or Web browser that supports specifying a non-default port to start a session to the GbE Switch Module user interface.

Management Module-GbE Switch Module Connectivity

Currently, the IBM management module is designed to provide one-way control of the GbE Switch Module. As a result, the GbE Switch Module may lose connectivity to the management module via the management port under the following conditions:

- If new IP attributes are pushed from the management module to the GbE Switch Module while the IP Routing table is full with 2048 entries, the new attributes will not be applied.

  Solution: Enable "External Management over all ports," connect to the switch using other interface and then clear the routing table. Then push the IP address from the management module. If this does not work, use Solution 2 below.

- If you execute the `/boot/reset` CLI command on the GbE Switch Module or the GbE Switch Module resets itself, the management module might not push the IP attributes to the switch, and connectivity may be lost.

  Solution 1: If you should experience any connectivity issues between the switch module and the management module, go to the ***I/O Module Management*** window on the management module's Web interface. Under the ***New Static IP Configuration*** section, click **Save** to trigger the management module to push the stored IP attributes to the switch module.

  Solution 2: If Solution 1 does not resolve your connectivity issue, then go to the ***I/O Module Power/Restart*** window on the management module's Web interface. Restart the switch module in question.

  Solution 3: If this still does not resolve the issue, enable ***Preserve new IP configuration on all resets*** setting on the management module and restart the switch module via the ***I/O Module Power/Restart*** window on the management module's Web interface.

NOTE – As a rule, always use the management module Web interface to change the GbE Switch Module management IP attributes (IP address, mask and gateway), and then click **Save** to push the IP attributes to the switch module. Use of the command-line interface to change the switch module management IP attributes may result in duplicated IP Interface 128 entries in the GbE Switch route table and/or loss of connectivity via the management module.

BBI software download

Some versions of Microsoft Internet Explorer version 6.x do not perform HTTP download efficiently. If you have one of these versions, HTTP software download might take much longer than expected (up to several minutes).

Blade Network Technologies recommends the Firefox browser for BBI use.