BBI Quick Guide

for the EN2092 1Gb Ethernet Scalable Switch
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Note: Before using this information and the product it supports, read the general information in the Safety information and Environmental Notices and User Guide documents on the IBM Documentation CD and the Warranty Information document that comes with the product.
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Preface

The IBM Networking OS Browser-Based Interface (BBI) software is included with the EN2092 1Gb Ethernet Scalable Switch (EN2092). The BBI software lets you use your Web browser to access switch information and statistics, and to perform switch configuration via the Internet.

This BBI Quick Guide provides an overview of how to access and use the IBM N/OS Browser-Based Interface.

Who Should Use This Book

This BBI Quick Guide is intended for network installers and system administrators engaged in configuring and maintaining a network. It assumes that you are familiar with your EN2092, your Web browser, Ethernet concepts, IP addressing, the IEEE 802.1d Spanning Tree Protocol, and SNMP configuration parameters.

Related Documentation

For documentation on installing the switch physically, see the User Guide for your EN2092.

For details about the switch information, statistics, and configuration parameters available using the IBM N/OS BBI, see the IBM N/OS Command Reference and Application Guide.

Typographic Conventions

The following table describes the typographic styles used in this book.

<table>
<thead>
<tr>
<th>Typeface or Symbol</th>
<th>Meaning</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>AaBbCc123</td>
<td>This type is used for names of commands, files, and directories used within the text. It also depicts on-screen computer output and prompts.</td>
<td>View the readme.txt file. Main#</td>
</tr>
<tr>
<td>AaBbCc123</td>
<td>This bold type appears in command examples. It shows text that must be typed in exactly as shown.</td>
<td>Main# <strong>sys</strong></td>
</tr>
<tr>
<td>Typeface or Symbol</td>
<td>Meaning</td>
<td>Example</td>
</tr>
<tr>
<td>--------------------</td>
<td>---------</td>
<td>---------</td>
</tr>
<tr>
<td><code>&lt;AaBbCc123&gt;</code></td>
<td>This italicized type appears in command examples as a parameter placeholder. Replace the indicated text with the appropriate real name or value when using the command. Do not type the brackets. This also shows book titles, special terms, or words to be emphasized.</td>
<td>To establish a Telnet session, enter: <code>host# telnet &lt;IP address&gt;</code> Read your User’s Guide thoroughly.</td>
</tr>
<tr>
<td><code>[ ]</code></td>
<td>Command items shown inside brackets are optional and can be used or excluded as the situation demands. Do not type the brackets.</td>
<td><code>host# ls [-a]</code></td>
</tr>
</tbody>
</table>
How to Get Help

If you need help, service, or technical assistance, visit our website at the following address:

You also can visit our web site at the following address:

http://www.ibm.com/support

Click the Support tab.

The warranty card received with your product provides details for contacting a customer support representative. If you are unable to locate this information, please contact your reseller. Before you call, prepare the following information:

- Serial number of the switch unit
- Software release version number
- Brief description of the problem and the steps you have already taken

Technical support dump information (show tech-support)
Chapter 1. Getting Started

This chapter briefly describes the software features and requirements for the IBM Networking OS Browser-Based Interface (BBI), and explains how to access the BBI start page.

Features

The network administrator can access switch configuration and monitoring functions through the BBI, a Web-based switch management interface. The BBI has the following features:

- Many of the same configuration and monitoring functions as the command-line interface
- Intuitive and easy-to-use interface structure
- Password protection
- Nothing to install; the BBI is part of the IBM N/OS switch software
- Automatically upgraded with each new software release

Note: You can perform most configuration and monitoring tasks through the BBI. For a comprehensive set of commands, use the command-line interface. Refer to the IBM Networking OS Command Reference for the EN2092 1Gb Ethernet Scalable Switch.

Requirements

- EN2092 1Gb Ethernet Scalable Switch switch
- Installed IBM Networking OS switch software
- PC or workstation with network access to the switch
- Frame-capable Web-browser software, such as the following:
  - Internet Explorer 7.0x or higher
  - Mozilla FireFox 8.x or higher
  - Google Chrome 16.x or higher
- JavaScript enabled in your Web browser

Switch Set Up

Before you can access the BBI, minimal configuration is required on the EN2092.

IP Interfaces

At least one IP interface must be configured on the switch. Each IP interface address provides a point of access for IBM Networking OS switch management. The default management interface is 128 for IPv4 and 127 for IPv6.

For complete information about configuring IP interfaces, see your EN2092 Application Guide.
Enabling/Disabling BBI Access

By default, BBI access is disabled for HTTP, and enabled for HTTPS. If you need to enable HTTP access, use the following command from the command-line interface:

```
Router (config)# [no] access http enable
```

For more information on the accessing and configuring the switch through the command-line interface, see your Command Reference.

Web Browser Set Up

Most modern Web browsers work with frames and JavaScript by default, and require no additional set up. However, you should check your Web browser’s features and configuration to make sure frames and JavaScript are enabled.

**Note**: JavaScript is not the same as Java. Please make sure that JavaScript is enabled in your Web browser.

Starting the BBI

When the switch and browser set up is done, follow these steps to launch the BBI:

1. Start your Web browser.
2. Enter the switch IP interface address in the Web browser’s URL field.

For example, consider an IP interface with a network IP address of 10.10.10.1
You could enter the following:

![Web browser example 1](image1)

If the IP interface’s address has a name on your local domain name server, you could enter the name instead. For example, you could enter the following:

![Web browser example 2](image2)

3. Log in to the switch.
If your switch and browser are properly configured, you are asked to enter a password:

Enter the account name and password for the switch’s administrator or user account.
The default user name and password is as follows:
- User name is USERID.
- Password is PASSW0RD (the 0 in PASSW0RD is a zero).

For more password information, see your Command Reference.
4. Allow the BBI Dashboard page to load.

When the proper account name and password combination is entered, the BBI Dashboard page is displayed in your browser’s viewing area. There may be a slight delay while the Dashboard page is being initialized. You should not stop the browser while loading is in progress. When loading is complete, a folder icon appears in the left-hand navigation window.

*Note:* The sample screens that appear in this document might differ slightly from the screens displayed by your system. Screen content varies based on the type of switch unit that you are using and the firmware versions and options that are installed.
Chapter 2. Browser-Based Interface Basics

Once you are properly logged in, the IBM Networking OS Browser-Based Interface (BBI) appears in your Web browser’s viewing window:

There are four main regions on the IBM N/OS BBI screen:

- The toolbar is used for selecting the context for your actions in the other windows.
- The navigation window is used for selecting particular items or features to act upon.
- The forms window is used for viewing or altering switch information.
- The message window is used for displaying the most recent switch syslog messages and events.
## Toolbar

### Context Tabs

The toolbar is used for setting the context for your actions in the application. There are three context tabs:

<table>
<thead>
<tr>
<th>Context Tab</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Configure</td>
<td>When selected, you can access the switch configuration forms. Configuration forms can be altered only if you are logged in using the administrator account. Select an item in the navigation window to display the desired configuration form in the forms window.</td>
</tr>
<tr>
<td>Statistics</td>
<td>When selected, you can view information about switch performance. Select an item in the navigation window to display the desired statistics in the forms window.</td>
</tr>
<tr>
<td>Dashboard</td>
<td>This context tab is selected by default when the BBI is first activated. When selected, basic switch information and status can be viewed in the forms window. Select an item in the navigation window to display the desired dashboard information in the forms window.</td>
</tr>
</tbody>
</table>

The selected context tab is highlighted, to remind you of the current context mode.

### Commands

The following general commands are available on the toolbar:

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Save to Active Config</td>
<td>Saves the current configuration to the startup configuration block.</td>
</tr>
<tr>
<td>Save to Backup Config</td>
<td>Saves the current configuration to the backup configuration block.</td>
</tr>
<tr>
<td>Show Config</td>
<td>Opens a new Web-browser window that displays the running configuration.</td>
</tr>
<tr>
<td>Show Log</td>
<td>Opens a new Web-browser window that displays the most recent switch log messages. Close the log browser when finished.</td>
</tr>
<tr>
<td>Help</td>
<td>Opens a new Web-browser window that displays basic online help information. Close the Help browser when finished.</td>
</tr>
<tr>
<td>Logout</td>
<td>Log off the switch and exit the BBI.</td>
</tr>
</tbody>
</table>

### Navigation Window

The navigation window is used for selecting a particular switch feature to act upon. Status, statistics, or configuration forms for the selected item will appear in the forms window, depending on the context chosen on the toolbar.
The navigation window contains a tree of folders, sub-folders, and feature icons:

You can click on any closed folder to open it and reveal its contents. Click on any open folder to close it. Click on any feature icon to load the appropriate status, statistics, or configuration form in the forms window.

Some folders also have forms. If the name of the folders is underlined, click on the name to display the appropriate form.

### Forms Window

When a feature icon is selected on the navigation window, a status, statistics, or configuration form is displayed in the forms window. The exact nature of the form depends on the current context selected on the toolbar, as well as the type of information available. Not all feature icons have forms for all contexts.

Some forms display switch information such as settings, status, or statistics. Others allow you to make configuration changes to switch parameters.

### Message Window

Switch log messages are generated by events such as login/logout activity, password changes, configuration changes, and switch reboot. The BBI records the most recent messages and displays each one briefly in the message window. When the last message has been displayed, the cycle is repeated.

To view all messages at the same time, select the Show Log command on the toolbar. A new Web-browser window will be opened to display the log information. Close the window when finished.
Chapter 3. Configuring the Switch

The IBM Networking OS Browser-Based Interface (BBI) can be used to view and change switch configuration parameters. The same configuration parameters that are available through the switch’s command-line interface are present on the BBI configuration forms.

The following provides a basic outline for switch configuration. You should first be familiar with configuration as covered in the IBM N/OS Command Reference.

**Note:** You must be logged in using the administrator account in order to change switch configuration settings.

### Configuration Steps

Follow these basic steps for viewing or configuring switch parameters:

1. Click the Configure context tab in the IBM N/OS toolbar:

   ![IBM Networking OS Browser-Based Interface (BBI)](image)

2. Select a feature icon in the navigation window. For example:
3. View or make changes to the settings shown in the forms window. For example:

![Switch Management Processor Configuration](image)

**Note:** Fields which must be configured for proper switch operations are highlighted on the forms in **GREEN** type. Items which load other forms when selected are **underlined**.

4. Click the Submit button on the bottom of the form to submit the form contents to the switch.
Using the BBI to Load Switch Software

You can use the Browser-Based Interface to load software onto the EN2092. 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 IBM N/OS 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 Download Dialog, select the file and click **OK**. Click **Download via Browser**.

Once the image has loaded, the page refreshes to show the new software.
Chapter 4. Viewing Statistics

The IBM Networking OS Browser-Based Interface (BBI) can be used to view a variety of switch performance statistics. The same statistics that are available through the switch’s command-line interface are present on the BBI statistics forms.

The following provides a basic outline for viewing statistics. You should first be familiar with available statistics as covered in the IBM N/OS Command Reference.

Steps for Displaying Statistics

Follow these basic steps for viewing switch statistics:

1. Select the Statistics context tab in the IBM N/OS toolbar:

2. Select a feature icon or underlined folder in the navigation window. For example:
3. View the statistics in the forms window. For example:

![Switch Ports Statistics Summary]

<table>
<thead>
<tr>
<th>Switch Port</th>
<th>InErrors</th>
<th>OutErrors</th>
<th>Total Errors</th>
</tr>
</thead>
<tbody>
<tr>
<td>INT1A</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>INT1B</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>INT2A</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>INT2B</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>INT3A</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>INT3B</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>INT4A</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>INT4B</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>INT5A</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>INT5B</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>INT6A</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>INT6B</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**Note:** Items which load other forms when selected are underlined.
Chapter 5. The Dashboard

The IBM Networking OS Browser-Based Interface (BBI) can be used to view the present settings and operating status of a variety of switch features. The same information available through the switch’s command-line interface is present on the dashboard forms.

The following provides a basic outline for viewing the dashboard forms. You should first be familiar with configuration as covered in the IBM N/OS Command Reference.

Steps for Displaying Dashboards

Follow these basic steps for viewing switch dashboard forms:

1. Select the Dashboard context tab in the BBI toolbar:

2. Select a feature icon in the navigation window. For example:
3. View information shown in the forms window. For example:

![Switch Ports Dashboard]

**Note:** Items which load other forms when selected are underlined.