

BLADEOS™

# BBI Quick Guide

RackSwitch™ G8124

Version 5.2

---

Part Number: BMD00163, January 2010

**BLADE**  
NETWORK TECHNOLOGIES

2350 Mission College Blvd.  
Suite 600  
Santa Clara, CA 95054  
[www.bladenetwork.net](http://www.bladenetwork.net)

Copyright © 2010 BLADE Network Technologies, Inc., 2350 Mission College Blvd., Suite 600, Santa Clara, California, 95054, USA. All rights reserved. Part Number: BMD00163.

This document is protected by copyright and distributed under licenses restricting its use, copying, distribution, and decompilation. No part of this document may be reproduced in any form by any means without prior written authorization of BLADE Network Technologies, Inc. Documentation is provided “as is” without warranty of any kind, either express or implied, including any kind of implied or express warranty of non-infringement or the implied warranties of merchantability or fitness for a particular purpose.

U.S. Government End Users: This document is provided with a “commercial item” as defined by FAR 2.101 (Oct. 1995) and contains “commercial technical data” and “commercial software documentation” as those terms are used in FAR 12.211-12.212 (Oct. 1995). Government End Users are authorized to use this documentation only in accordance with those rights and restrictions set forth herein, consistent with FAR 12.211- 12.212 (Oct. 1995), DFARS 227.7202 (JUN 1995) and DFARS 252.227-7015 (Nov. 1995).

BLADE Network Technologies, Inc. reserves the right to change any products described herein at any time, and without notice. BLADE Network Technologies, Inc. assumes no responsibility or liability arising from the use of products described herein, except as expressly agreed to in writing by BLADE Network Technologies, Inc. The use and purchase of this product does not convey a license under any patent rights, trademark rights, or any other intellectual property rights of BLADE Network Technologies, Inc.

BLADE Network Technologies, the BLADE logo, BLADEHarmony, BNT, NMotion, RackSwitch, Rackonomics, RackSwitch Solution Partner, ServerMobility, SmartConnect and VMready are trademarks of BLADE Network Technologies. All other names or marks are property of their respective owners.

Originated in the USA.

# Contents

---

## **Preface ■ 5**

Who Should Use This Book ■ 5

Related Documentation ■ 5

Typographic Conventions ■ 6

How to Get Help ■ 7

## **Chapter 1: Getting Started ■ 9**

Features ■ 9

Requirements ■ 9

Switch Set Up ■ 10

    IP Interfaces ■ 10

    Enabling/Disabling BBI Access ■ 10

Web Browser Set Up ■ 10

Starting the BBI ■ 11

## **Chapter 2: Browser-Based Interface Basics ■ 15**

Toolbar ■ 16

    Context Tabs ■ 16

    Commands ■ 16

Navigation Window ■ 17

Forms Window ■ 18

Message Window ■ 18

## **Chapter 3: Configuring the Switch ■ 19**

Configuration Steps ■ 19

    Using the BBI to Load Switch Software ■ 22

## **Chapter 4: Viewing Statistics ■ 25**

Steps for Displaying Statistics ■ 25

**Chapter 5: The Dashboard ■ 27**

**Steps for Displaying Dashboards ■ 27**

# Preface

---

The BLADEOS Browser-Based Interface (BBI) software is included with the RackSwitch G8124 (G8124). 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 BLADEOS 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 G8124, 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 *Installation Guide* for your RackSwitch G8124.

For details about the switch information, statistics, and configuration parameters available using the BLADEOS BBI, see the BLADEOS 5.0 *Command Reference* and *Application Guide*.

# Typographic Conventions

---

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

**Table 1** Typographic Conventions

Typeface or Symbol	Meaning	Example
AaBbCc123	This type is used for names of commands, files, and directories used within the text.  It also depicts on-screen computer output and prompts.	View the <code>readme.txt</code> file.  Main#
<b>AaBbCc123</b>	This bold type appears in command examples. It shows text that must be typed in exactly as shown.	Main# <b>sys</b>
<AaBbCc123 >	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.	To establish a Telnet session, enter: host# <b>telnet</b> <IP address>  Read your <i>User's Guide</i> thoroughly.
[ ]	Command items shown inside brackets are optional and can be used or excluded as the situation demands. Do not type the brackets.	host# <b>ls</b> [-a]

## How to Get Help

---

If you need help, service, or technical assistance, call BLADE Network Technologies Technical Support:

US toll free calls: 1-800-414-5268

International calls: 1-408-834-7871

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

<http://www.bladenetwork.net>

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 BLADEOS 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 BLADEOS 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 *BLADE OS Command Reference* for the RackSwitch G8124.

---

### Requirements

---

- G8124 switch
- Installed BLADE OS switch software
- PC or workstation with network access to the switch's management interface.

- Frame-capable Web-browser software, such as the following:
  - Netscape Navigator 4.7x or higher
  - Internet Explorer 6.0x or higher
  - Mozilla FireFox 1.0.4 or higher
- JavaScript enabled in your Web browser

## Switch Set Up

---

Before you can access the BBI, minimal configuration is required on the G8124.

### IP Interfaces

At least one IP interface must be configured on the switch. Each IP interface address provides a point of access for BLADE OS switch management. The default management interface is 1, which allows access to BLADE OS switch management.

For more information about configuring IP interfaces, see your *G8124 Application Guide*.

### Enabling/Disabling BBI Access

By default, BBI access is enabled. If you need to disable or re-enable access, use the following command from the command-line interface:

```
RS G8124 (config)# [no] access http enable
```

For more information on the accessing and configuring the switch through the command-line interface, see your *G8124 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

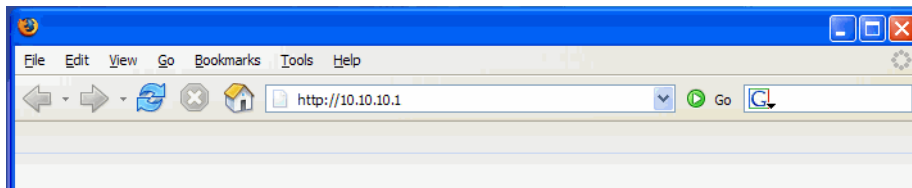
---

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

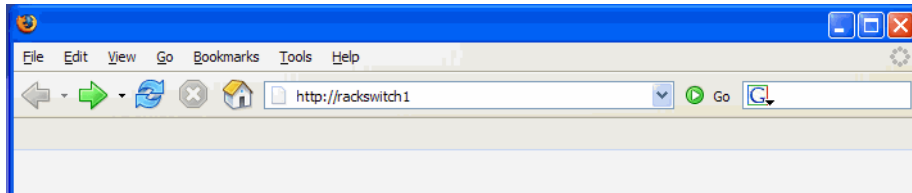
1. Start your Web browser.
2. Enter the switch IP interface address in the Web browser's URL field.

For example, consider an IP interface with a network IP address of 10.0.0.1

You could enter the following:



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:



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 account name is *admin*, and the default password is *admin*. For more password information, see your *Command Reference* manual.

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.

Switch Name	
Switch Location	
Switch Type	Blade Network Technologies RackSwitch G8124
Switch Up Time	0 days, 0 hours, 54 minutes and 52 seconds.
Last Boot Time	17:09:08 Mon Jan 30, 2010 (unknown reason)
Time and date	14:03:03 , 1/30/2010
Timezone Location	Americas-Barbados
Daylight Savings Time Status	disabled
MAC Address	00:25:03:49:29:00
IP Address	0.0.0.0
Hardware Revision	16
Switch Serial No	CH4934002S
HW Spare Part No	BAC-00045-00
Software Rev	5.2.0 (FLASH image1)
Flash Configuration	FLASH image1, active configuration.
Unit Fans Status	Fans are in Forward AirFlow, Warning at 85C and Failure at 100C
Unit Temperature	Sensor 1: 26.0 C; Sensor 2: 31.0 C; Sensor 3: 41.00 C; Sensor 4: 46.50 C; Sensor 5: 39.75 C;
Unit Fans Speed	Fan 1: 8000 RPM; Fan 2: 8282 RPM; Fan 3: 8120 RPM; Fan 4: 8071 RPM; Fan 5: 8071 RPM; Fan 6: 8282 RPM;
Unit Power Supplies	Power Supply 1: On , Power Supply 2: On
Banner	

**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 Blade OS Browser-Based Interface (BBI) appears in your Web browser's viewing window:

The screenshot displays the Blade OS BBI interface. At the top, there is a toolbar with three tabs: CONFIGURE, STATISTICS, and DASHBOARD (which is active). Below the tabs are buttons for Apply, Save, Revert, Diff, and Dump. To the right of the toolbar is a message window and the BLADE OS logo with links for Show Log, Help, and Logout. The main content area is divided into two sections: a navigation window on the left showing a folder icon and the text 'BNT RackSwitch G8124', and a forms window on the right titled 'Switch Dashboard'. The forms window contains a table with various system parameters.

Switch Name	
Switch Location	
Switch Type	Blade Network Technologies RackSwitch G8124
Switch Up Time	0 days, 0 hours, 54 minutes and 52 seconds.
Last Boot Time	17:09:08 Mon Jan 30, 2010 (unknown reason)
Time and date	14:03:03 , 1/30/2010
Timezone Location	Americas-Barbados
Daylight Savings Time Status	disabled
MAC Address	00:25:03:49:29:00
IP Address	0.0.0.0
Hardware Revision	16
Switch Serial No	CH4934002S
HW Spare Part No	BAC-00045-00
Software Rev	5.2.0 (FLASH image1)
Flash Configuration	FLASH image1, active configuration.
Unit Fans Status	Fans are in Forward AirFlow, Warning at 85C and Failure at 100C
Unit Temperature	Sensor 1: 26.0 C; Sensor 2: 31.0 C; Sensor 3: 41.00 C; Sensor 4: 46.50 C; Sensor 5: 39.75 C;
Unit Fans Speed	Fan 1: 8000 RPM; Fan 2: 8282 RPM; Fan 3: 8120 RPM; Fan 4: 8071 RPM; Fan 5: 8071 RPM; Fan 6: 8282 RPM;
Unit Power Supplies	Power Supply 1: On , Power Supply 2: On
Banner	

The main regions on the BLADEOS BBI are as follows:

- 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:

---

<b>Configure</b>	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.
<b>Statistics</b>	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.
<b>Dashboard</b>	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.

---

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

### Commands

The following general commands are available on the toolbar:

<b>Save to Active Config</b>	Saves the current configuration to the startup configuration block.
<b>Save to Backup Config</b>	Saves the current configuration to the backup configuration block.
<b>Show Config</b>	Opens a new Web-browser window that displays the running configuration.

---



<b>Show Log</b>	Opens a new Web-browser window that displays the most recent switch log messages. Close the log browser when finished.
<b>Help</b>	Opens a new Web-browser window that displays basic online help information. Close the Help browser when finished.
<b>Logout</b>	Log off the switch and exit the BBI.

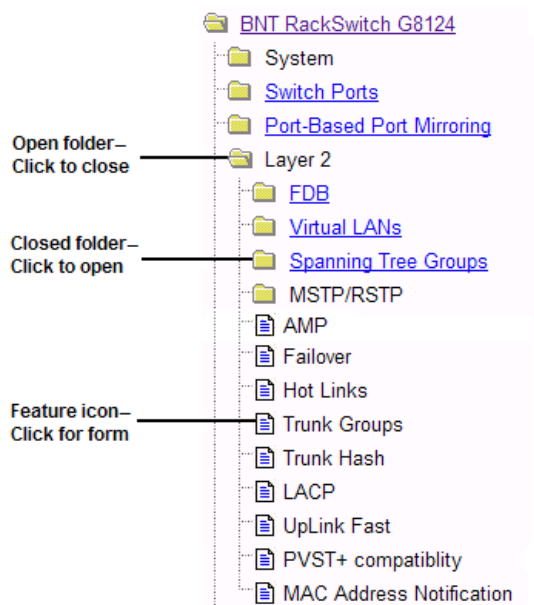
---

## 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 Blade 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 Blade OS *Command Reference* manual.

---

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

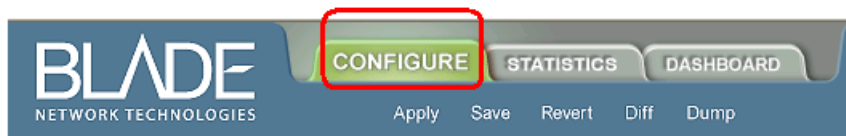
---

## Configuration Steps

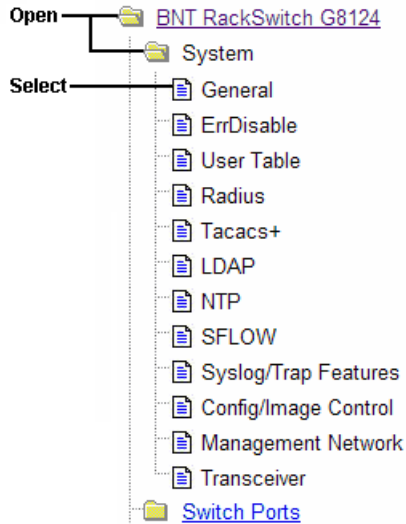
---

Follow these basic steps for viewing or configuring switch parameters:

1. Click the Configure context tab in the BLADEOS toolbar:



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	
Switch IP Address	10.0.0.1
Switch IP Subnet Mask	0.0.0.0
Enable/Disable BOOTP for IP Management	Enabled
Enable/Disable DHCP for Interface 127	Disabled
Enable/Disable DHCP for Interface 128	Enabled
Enable/Disable Console output of syslog messages	Enabled
Enable/Disable Host Name	Disabled
Syslog Host IP Address	
Transfer Port of Syslog Host	MGTA

---

**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.

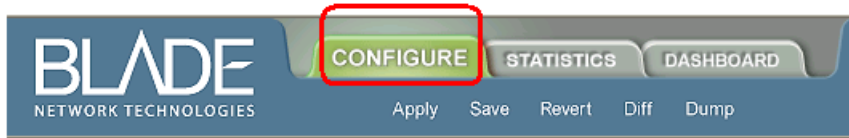
## Using the BBI to Load Switch Software

You can use the Browser-Based Interface to load software onto the G8124. The software image to load can reside in one of the following locations:

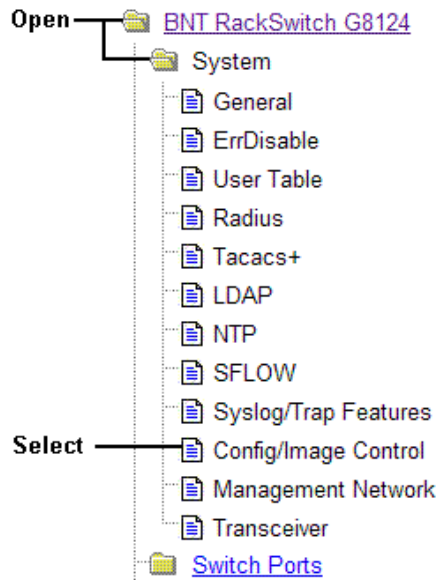
- TFTP server
- Local computer

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

1. Click the Configure context tab in the BLADEOS toolbar:



2. In the Navigation Window, select System > Config/Image Control.



The Switch Image and Configuration Management page appears.

Switch Image and Configuration Management	
Image 1 Version	version 5.2.0, downloaded 13:08:54 Fri Jan 25, 2010
Image 2 Version	version 1.0.3, downloaded 13:08:54 Mon Jan 08, 2010
Boot Version	version 5.2.0
Active Image Version	version 5.2.0
Next Boot Image Selection	image 1 ▾
Active Configuration Block	active config
Next Boot Configuration Block Selection	active config ▾
Next CLI Boot Mode Selection	ISCLI ▾
Prompt for selectable boot mode	DISABLE ▾
<b>FTP/TFTP Settings</b>	
Hostname or IP Address of FTP/TFTP server	100.20.10.1
Username for FTP Server or Blank for TFTP Server	
Password for FTP Server	
Port for Transfer	MGTA ▾
<b>Image Settings</b>	
Image for Transfer	image 1 ▾
Image Filename (on server)	5.2.0_os.img <input type="button" value="Get Image"/> <input type="button" value="Put Image"/>
Image Filename (on HTTP Client)	<input type="button" value="Browse..."/> <input type="button" value="Download via Browser"/>

- Enter the server's information in the FTP/TFTP Settings section. Select a port for the file transfer (optional).

<b>FTP/TFTP Settings</b>	
Hostname or IP Address of FTP/TFTP server	100.20.10.1
Username for FTP Server or Blank for TFTP Server	
Password for FTP Server	
Port for Transfer	MGTA ▾

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

<b>Image Settings</b>	
Image for Transfer	image 1 ▾
Image Filename (on server)	5.2.0_os.img <input type="button" value="Get Image"/> <input type="button" value="Put Image"/>
Image Filename (on HTTP Client)	<input type="button" value="Browse..."/> <input type="button" value="Download via Browser"/>

**Enter the file name and click** Get Image.

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



## CHAPTER 4

# Viewing Statistics

---

The Blade 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.

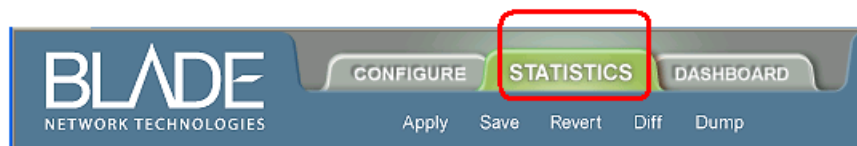
The following provides a basic outline for viewing statistics. You should first be familiar with available statistics as covered in the Blade OS *Command Reference* manual.

## Steps for Displaying Statistics

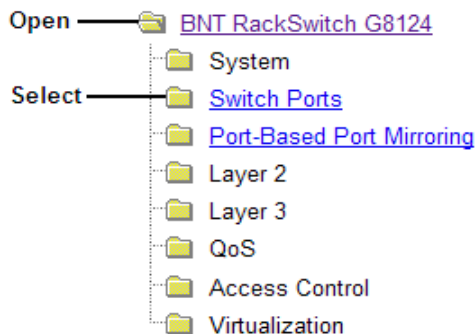
---

Follow these basic steps for viewing switch statistics:

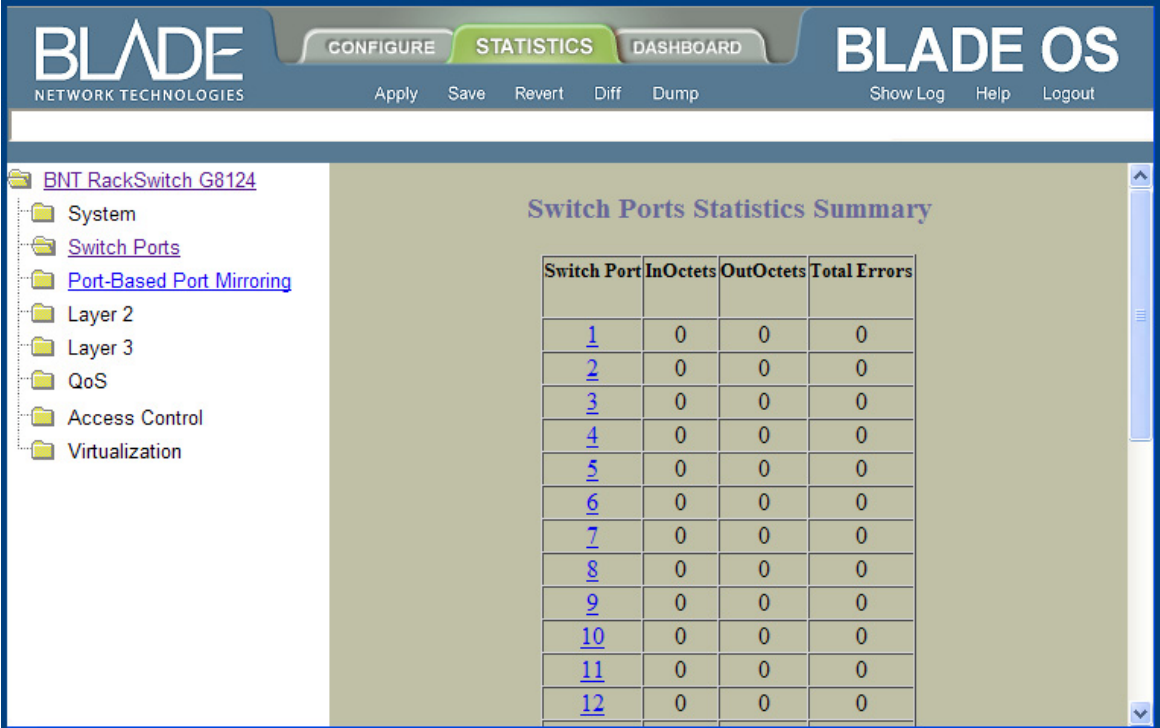
1. Select the Statistics context tab in the BLADEOS toolbar:



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



3. View the statistics in the forms window. For example:



The screenshot displays the BLADE OS web interface. The top navigation bar includes 'CONFIGURE', 'STATISTICS' (highlighted), and 'DASHBOARD'. Below the navigation bar are buttons for 'Apply', 'Save', 'Revert', 'Diff', 'Dump', 'Show Log', 'Help', and 'Logout'. The main content area shows a tree view on the left with folders for 'System', 'Switch Ports', 'Port-Based Port Mirroring', 'Layer 2', 'Layer 3', 'QoS', 'Access Control', and 'Virtualization'. The 'Switch Ports' folder is expanded, showing a table titled 'Switch Ports Statistics Summary'.

Switch Port	InOctets	OutOctets	Total Errors
<u>1</u>	0	0	0
<u>2</u>	0	0	0
<u>3</u>	0	0	0
<u>4</u>	0	0	0
<u>5</u>	0	0	0
<u>6</u>	0	0	0
<u>7</u>	0	0	0
<u>8</u>	0	0	0
<u>9</u>	0	0	0
<u>10</u>	0	0	0
<u>11</u>	0	0	0
<u>12</u>	0	0	0

---

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

---

## CHAPTER 5

# The Dashboard

---

The Blade 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.

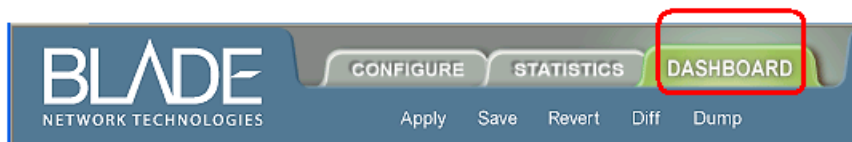
The following provides a basic outline for viewing the dashboard forms. You should first be familiar with configuration as covered in the Blade OS *Command Reference* manual.

## Steps for Displaying Dashboards

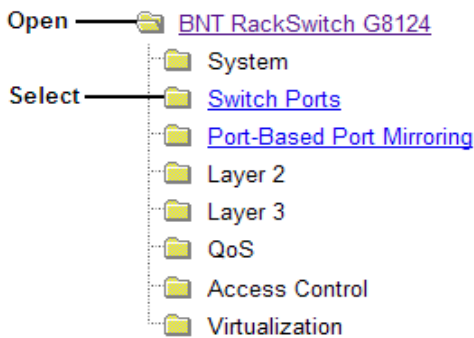
---

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:

The screenshot shows the BLADE OS Dashboard for a BNT RackSwitch G8124. The dashboard is titled "Switch Ports Dashboard" and displays a table of switch port configurations. The table has six columns: Status, Switch Port Info, Operational Status, Speed Duplex FlowCtl, Input Frames Output Frames, and LinkState Changes Total Errors. The table contains four rows of data, each representing a different switch port configuration. The first three rows are underlined, indicating they are clickable links to other forms. The fourth row is not underlined.

Status	Switch Port Info	Operational Status	Speed Duplex FlowCtl	Input Frames Output Frames	LinkState Changes Total Errors
<a href="#"><u>1</u></a>	name: stp: DISABLED ErrDisable Recovery: disabled Flood Blocking: disabled FDB Learning: enabled Tagging: disabled PVID: 1 VLANs: 1	operational	10000/Full/Both	0 0	0 0
<a href="#"><u>2</u></a>	name: stp: DISABLED ErrDisable Recovery: disabled Flood Blocking: disabled FDB Learning: enabled Tagging: disabled PVID: 1 VLANs: 1	operational	10000/Full/Both	0 0	0 0
<a href="#"><u>3</u></a>	name: stp: DISABLED ErrDisable Recovery: disabled Flood Blocking: disabled FDB Learning: enabled Tagging: disabled PVID: 1 VLANs: 1	operational	10000/Full/Both	0 0	0 0
<a href="#"><u>4</u></a>	name: stp: DISABLED ErrDisable Recovery: disabled Flood Blocking: disabled FDB Learning: enabled Tagging: disabled PVID: 1 VLANs: 1	operational	10000/Full/Both	0 0	0 0

**Note** – Items which load other forms when selected are [underlined](#).