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## DIGITAL GIGAswitch/Ethernet System Quick Start

### Introduction

This guide describes how to install and initially configure the GIGAswitch/Ethernet system. It contains important information that will help protect both you and the system during the installation.

### In This Guide

This guide contains the following topics:

Topic	Page
<a href="#">Unpacking the System</a>	2
<a href="#">Selecting a Location</a>	3
<a href="#">Installing the System</a>	4
<a href="#">Configuring the System</a>	11

### For More Information

Refer to the *DIGITAL GIGAswitch/Ethernet System Installation and Operation Guide* for information about safety, product specifications, regulatory compliance, and advanced configuration options. The guide is available in online format on the DIGITAL GIGAswitch/Ethernet System Information Library CD. This information is also available on the DIGITAL Network Products Home Page on the World Wide Web at:

**North America:** <http://www.networks.digital.com>  
**Europe:** <http://www.networks.europe.digital.com>  
**Asia Pacific:** <http://www.networks.digital.com.au>

Follow the Technical Information link to firmware, manuals, and more for the GIGAswitch/Ethernet system.

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# Unpacking the System

## Checking Your Shipment

To check your shipment:

Step	Action
1	Unpack the shipping cartons. When removing the system chassis from its carton: a Carefully set the carton on its side. b Slide the chassis out of the carton.  <u>Note:</u> Do not use the handles on the system to lift the chassis.
2	Check that you have all the items you need to install the system:

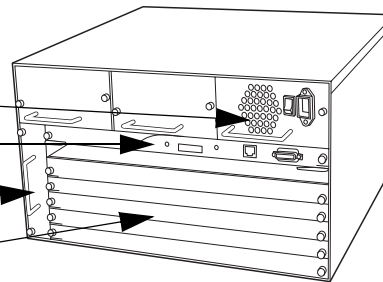
### Chassis

Power supply

Switch control processor module

Fan tray

Five blank faceplates



### Installation Kits

Rackmount kit

Rubber feet for tabletop installation

### Cables and Connectors

- Power cord
- 10BASE-T crossover cable (connects to the Ethernet console port)
- Out-of-band connection kit:
  - Male DCE-to-RJ45 connector (marked MDCE) for connecting to the switch
  - Female DTE-to-RJ45 connector (marked FDTE) for connecting to your computer
  - Male DTE-to-RJ45 null modem connector (marked DTE XOVER) for connecting to a modem
  - Straight-through RJ45 cable (connects between the connectors)

### Documentation

Letter

Release notes

This quick start guide

Information library CD

### Options as ordered (shipped in separate cartons)

I/O modules, additional power supplies

3	Report any lost or damaged items to your shipping carrier, DIGITAL representative, or distributor.
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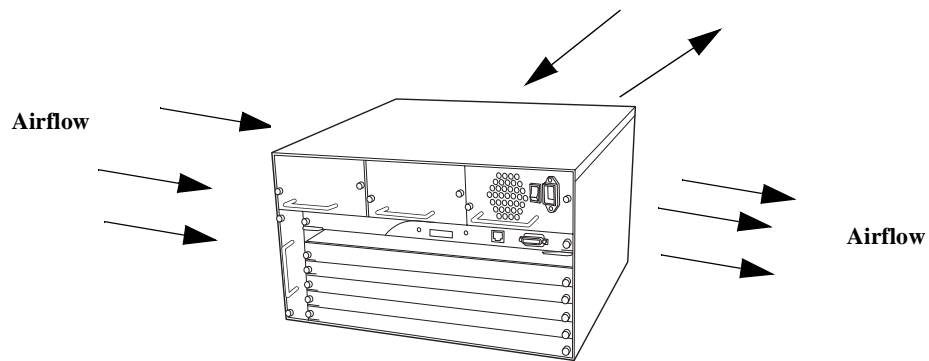
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## Selecting a Location

### Environmental Requirements

The location you select for installing the system hardware must meet the following requirements:

- 19-inch EIA-standard grounded rack or table capable of supporting at least 60 kg (130 lb). A fully loaded switch weighs 30 kg (65 lb).
- At least 5.2 cm (2 in) on either side of the system, and from the rear of the system, to allow adequate airflow through the system.



- AC power source(s) within 2 m (6 ft) (separate sources, on separate circuits, if you require maximum fault tolerance).
- Ambient temperature between 0°C and 40°C (32°F to 104°F).
- Relative humidity less than 95%, noncondensing.

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# Installing the System

## Overview

Installing the GIGAswitch/Ethernet system requires the following tasks:

- 1 [Preventing Electrostatic Discharge](#)
- 2 [Installing the Chassis](#)
- 3 [Installing the Modules](#)
- 4 [Installing the Cables](#)
- 5 [Making Sure That You Have Enough Power Available](#)
- 6 [Connecting the Power Supplies](#)
- 7 [Powering On the System](#)

## Preventing Electrostatic Discharge

Protect the modules against damage from electrostatic discharge (ESD) by using a grounded ESD wrist strap and an ESD mat while installing and removing modules. A Portable Static-Dissipative Field Service Kit, part number 29-26246, is available through your DIGITAL representative or distributor.

While installing the GIGAswitch/Ethernet system:

Step	Action
1	Ground the unit. The unit is grounded through the power cord when it is connected between the unit and the primary power source.
2	Lay out the static-dissipative work surface (ESD mat) on a flat surface.
3	Connect the ground cord assembly to the ESD mat and to the ground plug on the switch fan tray. <u>Note:</u> The ground plug accepts a ground cord with a banana plug, or a screw to which you can connect a ground cord clip.
4	Wear the ESD wrist strap and attach it to the ground cord assembly.

## Installing the Chassis

The system can be installed by:

- [Rack Mounting the System](#)
- [Installing the System on a Tabletop](#)

## Rack Mounting the System

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### WARNING

A fully loaded system weighs 30 kg (65 lb). Safe rackmount installation requires three people: two to lift the system into place, and a third to screw the system to the rack.

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**NOTE**

Do not use the handles on the power supplies or fan assembly to lift the system.

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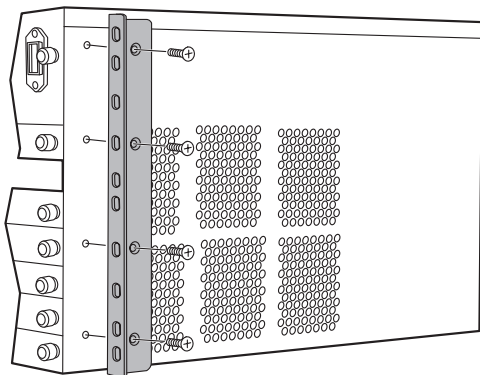
To rack mount the system, you will need a Phillips-head screwdriver:

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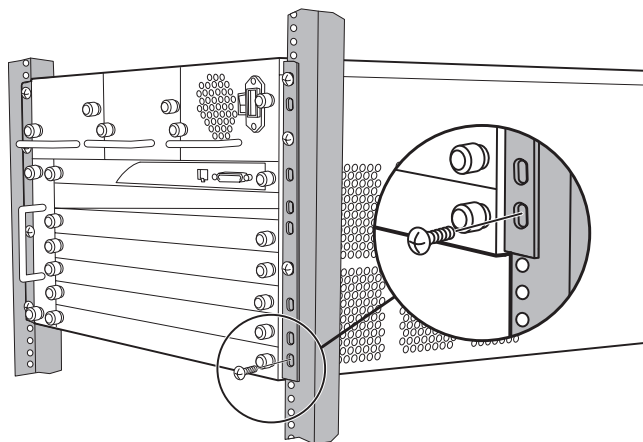
Step	Action
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- 1** Install the rackmount flanges onto the system with the supplied screws.



- 2** Check that all pre-installed modules are securely installed:
- Check that the switch control processor is firmly installed.
  - Check that the power supply and fan are securely in place.
  - Tighten the large black screws on the module, power supply, and fan tray faceplates.
- 3** With one person at each end of the system, lift the system into position. Install the system into the rack using screws appropriate for your rack.



## Installing the System on a Tabletop

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### NOTE

Do not use the handles on the power supplies or fan assembly to lift the system.

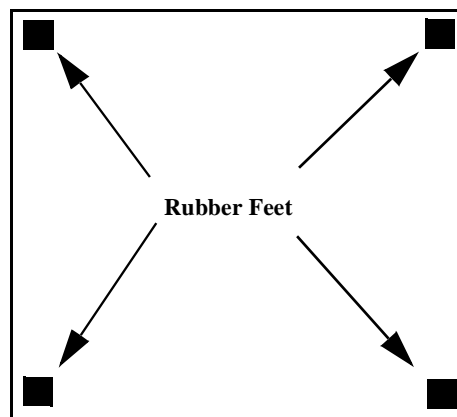
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To install the system on a tabletop:

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Step	Action
1	Place the system on a surface that supports at least 90 kg (200 lb).
2	Apply the supplied rubber feet to the bottom of the unit, placing the feet about 1.3 cm (1/2 in) from each corner of the unit.

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- 3 Check that all pre-installed modules are securely installed:
- Check that the switch control processor is firmly installed.
  - Check that the power supply and fan are securely in place.
  - Tighten the large black screws on the module, power supply, and fan tray faceplates.
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## Installing the Modules

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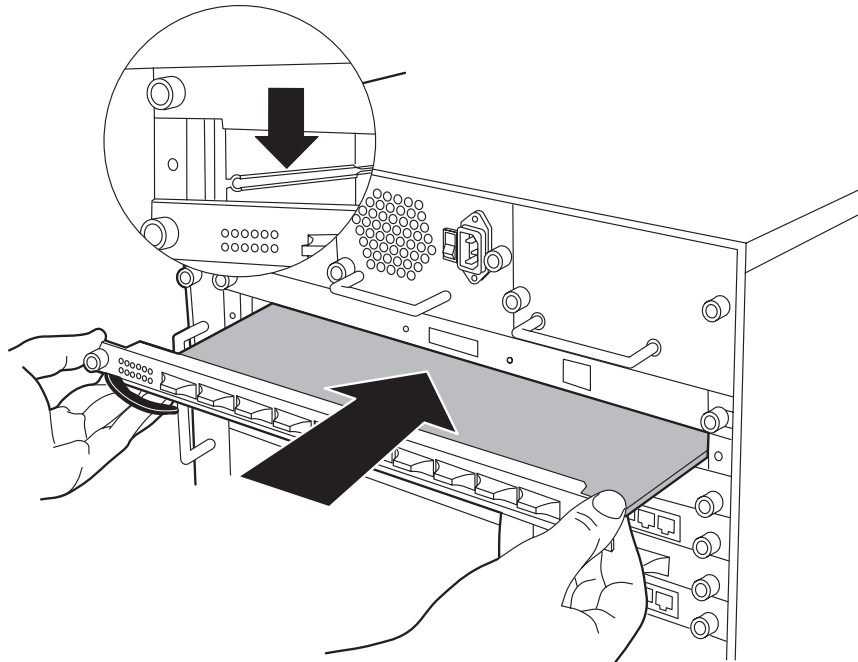
### CAUTION

Static electricity can damage modules and electronic components. DIGITAL recommends using a grounded antistatic wrist strap and a grounded work surface when handling any modules.

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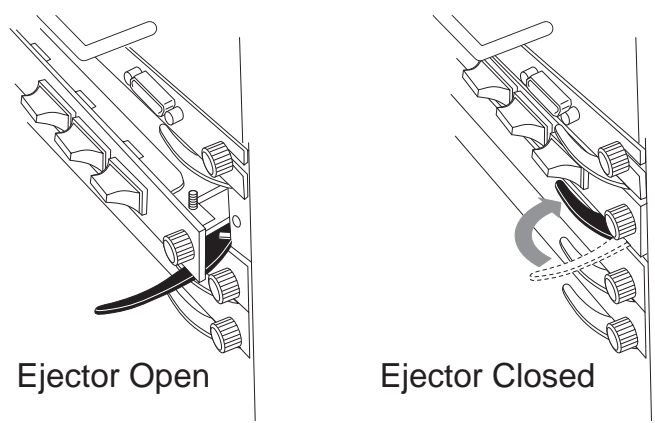
To install modules in the system chassis:

Step	Action
1	Carefully remove each module from its box, leaving each module in its antistatic wrapping.
2	After taking appropriate antistatic precautions, as described in <a href="#">Preventing Electrostatic Discharge on page 4</a> , carefully remove a module from the antistatic wrap.
3	Insert the module into the system as shown below:



Step	Action
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4 Push the module all the way into the system chassis, then use the ejectors to lock the module into the system backplane as shown below:



5 Tighten the black captive screws.

6 Repeat steps 2 through 5 for each additional module that you are installing.

Note: Use a Phillips screwdriver to remove faceplates covering additional module slots in the system.

### Installing the Cables

Install appropriate cables for your network configuration. GIGAswitch/Ethernet systems use the following cable types:

- Fiber cables with SC-type connectors.
- Straight-through Category 5 cables with male RJ45 connectors (end station/NIC card connections). All I/O ports are crossed over internally, so you can use straight-through cables to attach to end stations, and crossover cables to attach to repeaters.
- Crossover 10BASE-T cables with male RJ45 connectors (switch-to-switch connections).

Refer to the *DIGITAL GIGAswitch/Ethernet Installation and Operation Guide* for more information on cable types and configurations.



## Making Sure That You Have Enough Power Available

Each power supply powers approximately three I/O modules. It takes two power supplies to power a full chassis. Using three power supplies ensures that the system has fault-tolerant, load-sharing power capabilities. The precise values are:

### Power Values for System Devices

Device	Power Added/Used
Power supply	+400 W
Backplane elements	-50 W
20-port 10/100 module	-70 W
Switch control processor	-10 W
2-port gigabit module	-35 W
4-port gigabit module	-55 W
10-port 100BASE-FX module	-50 W

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#### NOTE

See the instruction sheet included with the power supply for power supply installation procedures.

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## Connecting the Power Supplies

Before connecting the power cords:

- Make sure that all of the power supplies are seated firmly, with the captive screws tightened.
- Make sure that all of the ON/OFF switches on the power supplies are OFF.
- If you are using multiple power supplies to ensure fault tolerance, make sure that there is a dedicated power circuit available for each supply. The separate power sources help ensure operation when the power source itself fails.

To connect the power supplies:

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Step	Action
1	Plug the power cord into each power supply.
2	Plug the power cord into an ac outlet.

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#### NOTE

Do not wrap power cords through the handles on the system. Dressing the cords this way can interfere with hotswapping options in the system.

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## Powering On the System

To power on the system:

Step	Action
1	Check all connections.
2	Turn the power supplies on by switching on the power switches on each supply.

### Power-On Sequence

As the system powers on, you will observe the following:

- Digital GIGAswitch/Ethernet Agent v1.x.x displays on the 8-character LED display.
- On properly functioning modules, Port LEDs will cycle from yellow to normal operating status as the system continues through its power-on diagnostics.

When the system has completed running its internal diagnostics:

- The 8-character LED display should read: Digital GIGAswitch/Ethernet Agent v1.x.x.
- The LEDs should function as described in the *DIGITAL GIGAswitch/Ethernet Installation and Operation Guide*. In general, you will observe the following on properly functioning modules:

#### Normal Power-Up LED Functions

Module	LED	Behavior
All modules	Module Status ◀	Solid green, indicating normal operation.
Gigabit modules	TX and RX	Solid green, flashing yellow intermittently to indicate traffic.
	Port	Solid green, indicating link integrity. Inactive port LEDs will go off.
	HD/FD	Solid green, indicating full-duplex operation.
10/100 modules	Port	Solid green, flashing yellow intermittently to indicate traffic. Inactive port LEDs will go off.

Contact your DIGITAL service representative if your system fails to function properly.

### Post Power-On Configuration

The system is now fully operational as an 802.1d spanning tree-compliant bridge. All ports are assigned to a single VLAN (Default). What this means:

- All ports can send traffic to all other ports in the system without using a router.
- The system is a single flood domain, so all broadcast and unknown unicast traffic will be forwarded to all ports in the system.

### What to Do Next

Proceed to [Configuring the System on page 11](#).

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# Configuring the System

## Overview

If you are powering up the GIGAswitch/Ethernet system for the first time, the process for configuring the system requires the following tasks:

- Initial setup and configuration of the switch using the serial console port
- Creating user accounts
- Configuring ports

## What You Will Need

To complete initial switch setup, you need a PC with a serial line connection. It must have the following terminal setting to communicate with the switch:

### Terminal Setup

Baud Rate	Stop Bits	Data Bits	Flow Control	Parity
9,600	1	8	Xon/Xoff	None

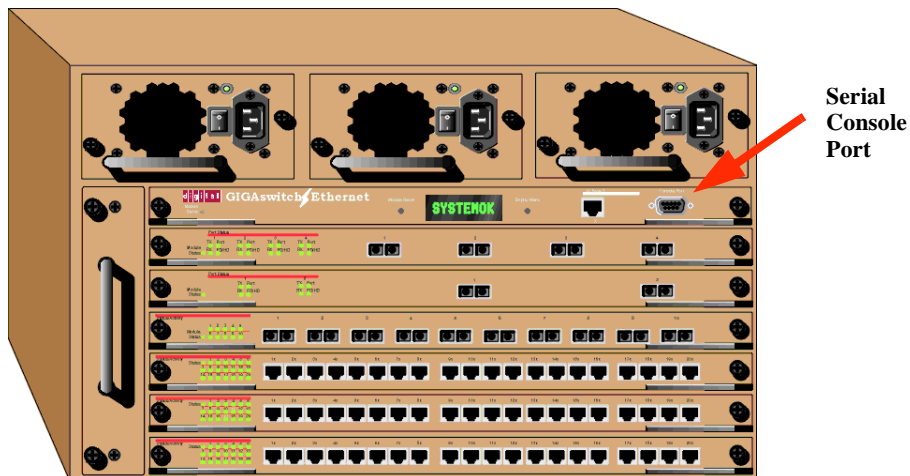
## Connecting to the GIGAswitch/Ethernet System Web Agent

To connect to the web agent, you must first use the serial command line interface to give the switch control processor an IP address and a subnetwork mask. To do this:

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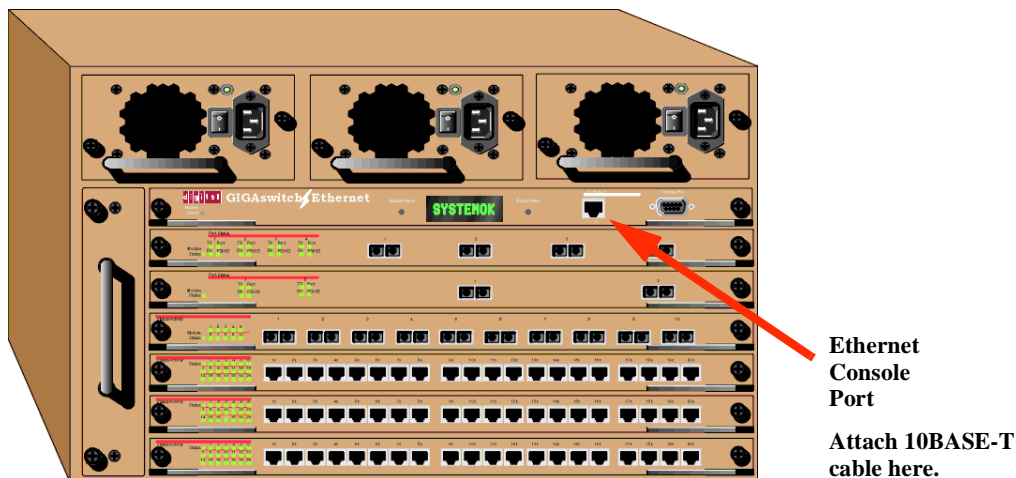
Step	Action
1	Start the switch as instructed in <a href="#">Powering On the System on page 10</a> .
2	Use the out-of-band connection kit ( <a href="#">page 2</a> ) to connect from the serial port on your PC to the serial port on the switch control processor (shown below): <ol style="list-style-type: none"><li>Connect the connector marked MDCE to the switch.</li><li>Connect the connector marked FDTE to the PC.</li><li>Connect the straight-through RJ45 cable between the connectors.</li></ol>

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**Note:** Line up the cable *ends* to check that you have the straight-through cable; the wire colors inside the connectors should match exactly. (See the *Installation and Operation Guide* for pinouts.)

Step	Action
3	Run a terminal emulation program (HyperTerminal, for example) on the attached PC. Make sure that the terminal settings match those listed in <a href="#">Terminal Setup on page 11</a> .
4	Press <b>Enter</b> on the PC's keyboard. The following prompt displays: Login:  <u>Note:</u> The user name and password are case sensitive.
5	Enter the user name "root". The terminal prompts for a password. Password:
6	Enter "root" (the default password), then press <b>Enter</b> . The command prompt displays.
7	Enter the following command: GIGAswitch Ethernet> setup
8	Follow the instructions as presented on the screen to: <ul style="list-style-type: none"> <li>a Change your administrator's login password (root).</li> <li>b Add an IP address, subnet mask, and default gateway to the front panel Ethernet console port.</li> </ul>
9	Attach the 10BASE-T-compliant crossover cable ( <a href="#">page 2</a> ) to the RJ45 connection in the switch front panel as shown below. The other end is assumed to be connected to an Ethernet end-station such as a PC with a web browser installed. If you are connecting the Ethernet console to a repeater or switch port, a straight-through 10BASE-T cable should be used.



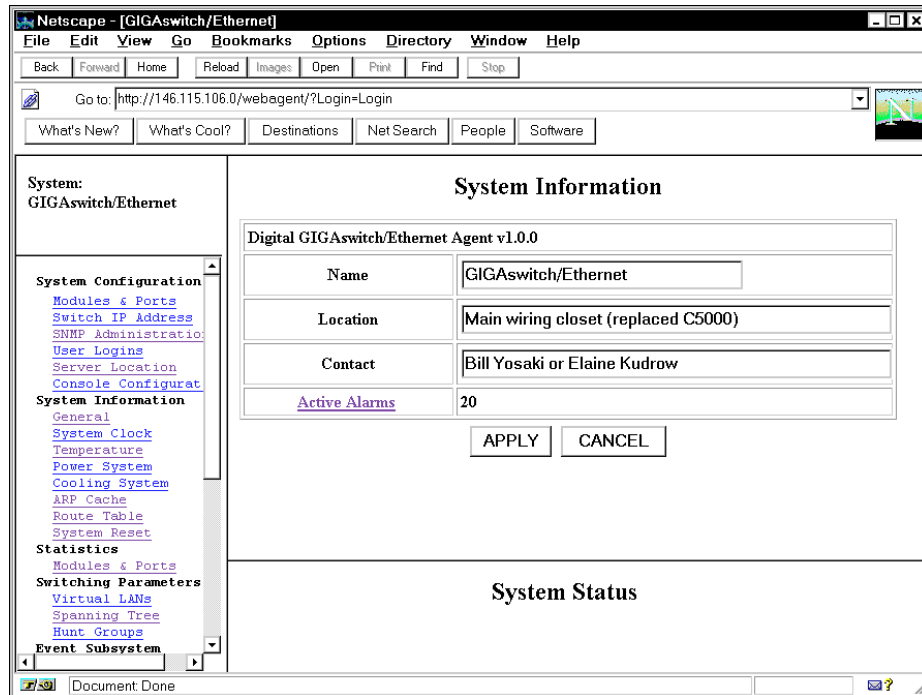
- 10 Log in to the switch using a web browser, as described in [Logging In to the Web Agent on page 13](#).

For information on connecting to the switch inband, refer to the *DIGITAL GIGAswitch/Ethernet Installation and Operation Guide*.

## Configuring the Switch Using the Web Agent

The system provides an embedded HTTP server that allows you to set all parameters on a particular switch.

### Web Agent Interface



### Logging In to the Web Agent

Although the web agent supports any frames-capable browser, the system has been qualified with the following browsers:

- Netscape Navigator 3.0 or later
- Microsoft Internet Explorer 3.0 or later

To log in to the web agent:

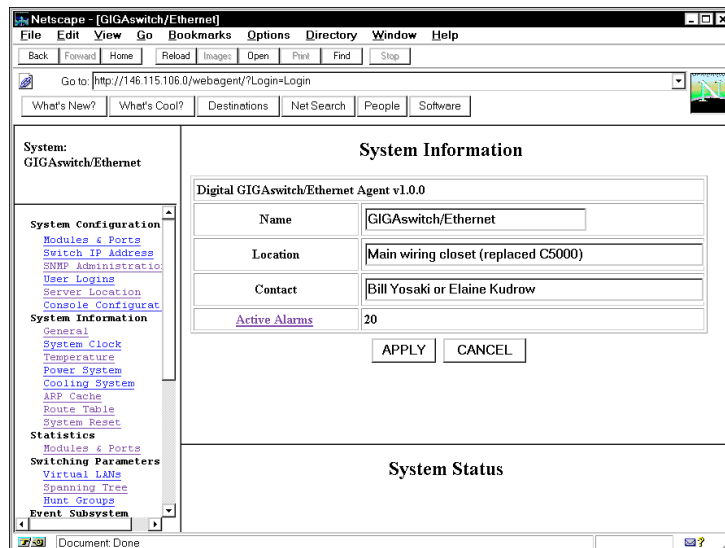
Step	Action
1	Start your browser.
2	Enter the URL of the switch you want to manage in the Location field using the IP address you set in step 8 on <a href="#">page 11</a> (for example: <a href="http://146.115.106.0">http://146.115.106.0</a> ). Remember that each interface to the switch control processor (console or inband) has a separate IP address.
3	Press <b>Enter</b> . The switch login screen displays.
4	Click on the <b>Login</b> button.
5	Enter a valid user name, then press <b>Tab</b> . (The default user name for administrators is <b>root</b> .)

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Step	Action
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- |   |   |
|---|---|
| 6 | Enter the password for the user name you entered. (The default password is <b>root</b> .) The web agent displays. |
|---|---|
- 



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### NOTE

If you did not change the root password for the system during setup, do so as soon as possible to prevent intrusions into your system.

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### Entering Basic System Information

The system lets you enter basic system identification information from the web agent. Use these fields to uniquely identify each switch. The fields are:

- Switch name
- Device location
- Device contact
- System date and time

To change these values:

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Step	Action
1	Select <b>General</b> from the menu on the left side of the web browser display. The System Information window displays.

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System Information	
Digital GIGAswitch/Ethernet Agent v1.0.0	
Name	GIGAswitch/Ethernet
Location	Main wiring closet (replaced C5000)
Contact	Bill Yosaki or Elaine Kudrow
<a href="#">Active Alarms</a>	20
<input type="button" value="APPLY"/> <input type="button" value="CANCEL"/>	

- 2 Type a name for the switch at the **Name** prompt.
- 3 Type the location for the switch (floor and closet location, for example) at the **Location** prompt.
- 4 Type information about the person who should be contacted in the event of a problem with this switch at the **Contact** prompt.
- 5 To apply the settings, click **Apply**. **Cancel** returns the display to the current switch settings.
- 6 Select **System Clock** from the menu on the left side of the web browser display. The System Clock window displays.

System Clock			
	Hour	Minutes	Seconds
Current Time Setting	20	39	09
	Month	Date	Year
Current Date Setting	09	24	97
<input type="button" value="APPLY"/>			

- 7 Enter the time using 24-hour time format (example: 10 p.m. is 22 00 00).
  - 8 Enter the current date.
  - 9 Press **Apply** to set the clock.
-

## Setting Up User Accounts

User accounts set up in the system allow users to access both the command line interface and the web agent. There are three default user logins available:

User Account Management		
User Name	User Access	
<input type="checkbox"/>	root	ADMINISTRATOR
<input type="checkbox"/>	diag	DIAGNOSTICS
<input type="checkbox"/>	manuf	MANUFACTURING
<input type="button" value="Add"/>	<input type="button" value="Delete"/>	<input type="button" value="Change Password"/>

### Default User Logins

User Name	Purpose
root	Can view and set all switch parameters.
diag	Can access low-level diagnostics functions from the command line interface. This feature is not documented and should be used only with the assistance of qualified service personnel.
manuf	Can access manufacturing functions from the command line interface. This feature is not documented and should be used only with the assistance of qualified service personnel.

To add a user to this interface:

Step	Action
1	Log in to the switch from your web browser, using a user name with administrator privileges. (The default login of user <b>root</b> , password <b>root</b> has this authority). The web agent main screen displays.
2	From the menu bar on the left side of the browser window, select <b>User Logins</b> . The User Account Management screen displays.
3	Click on <b>A</b> . The Add User Account screen displays.

Add User Account	
User Name:	<input type="text" value="Bill"/>
Password	<input type="password" value="*****"/>
Access Type:	<input type="text" value="READ_WRITE"/> ▾
<input type="button" value="APPLY"/>	<input type="button" value="CANCEL"/>

- 4 Type in a user name for the account, then press **Tab**.



Step	Action												
5	Type in a password for the account, then press <b>Tab</b> . <u>Note:</u> Use caution entering the password as you will not be prompted for a confirmation.												
6	Use the drop-down menu to select an access type. The types are as shown below:  <div style="text-align: center;"><b>User Account Access Levels</b></div> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>User Level</th> <th>Can</th> <th>Cannot</th> </tr> </thead> <tbody> <tr> <td>User (READ_ONLY)</td> <td>View switch configuration settings and statistics.</td> <td>View user accounts and community strings. Change switch configurations.</td> </tr> <tr> <td>Manager (READ_WRITE)</td> <td>View <i>and set</i> switch configuration settings, and view statistics.</td> <td>View user accounts and community strings.</td> </tr> <tr> <td>Administrator (ADMINISTRATOR)</td> <td>View and set all switch parameters.</td> <td>N/A</td> </tr> </tbody> </table>	User Level	Can	Cannot	User (READ_ONLY)	View switch configuration settings and statistics.	View user accounts and community strings. Change switch configurations.	Manager (READ_WRITE)	View <i>and set</i> switch configuration settings, and view statistics.	View user accounts and community strings.	Administrator (ADMINISTRATOR)	View and set all switch parameters.	N/A
User Level	Can	Cannot											
User (READ_ONLY)	View switch configuration settings and statistics.	View user accounts and community strings. Change switch configurations.											
Manager (READ_WRITE)	View <i>and set</i> switch configuration settings, and view statistics.	View user accounts and community strings.											
Administrator (ADMINISTRATOR)	View and set all switch parameters.	N/A											
7	To apply the settings, click <b>Apply</b> . <b>Cancel</b> returns the current switch settings.												

## Configuring Port Parameters Using the Web Agent

The system has two levels of port settings:

- Physical port parameters, which allow you to set up rules that guide the system's physical layer interaction (enable/disable, speed, auto-negotiation, for example)
- Switch port parameters, which allow you to set how the port participates in switching (VLAN mode, trunking, for example)

### Configuring Physical Port Parameters on Gigabit Ports

You can set the following attributes on gigabit ports:

#### Gigabit Port Settable Attributes

Attribute	Purpose
Enable/Disable	Determines whether or not the port is able to pass traffic.
Port Name	A user-assigned name for this port (possibly a drop name or the name of the station or other device connected to the port).
Flow Control Mode	Determines if IEEE 802.3x pause control is used on this port. The pause mechanism allows the port to stop a sending station from sending more packets if the receiving port's buffers are full. This helps prevent lost or dropped packets.

To configure ports on a gigabit module:

Step	Action
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- From the menu on the left side of the browser window, select **Modules & Ports**. A list of modules in the switch displays.

Module Information						
Slot	Model Number	Type	Ports	Switch Ports	Buffer Management	Name
<input type="checkbox"/> 1	<a href="#">DGBGL-AA</a>	Switch Control Processor	1	<a href="#">1</a>	<a href="#">Module 1</a>	<input type="text" value="Module 1"/>
<input type="checkbox"/> 2	<a href="#">DGBGL-AA</a>	Gigabit	<a href="#">2</a>	<a href="#">2</a>	<a href="#">Module 2</a>	<input type="text" value="Module 2"/>
<input type="checkbox"/> 3	<a href="#">DGBGT-AA</a>	Fast Ethernet	<a href="#">20</a>	<a href="#">20</a>	<a href="#">Module 3</a>	<input type="text" value="Module 3"/>
<input type="checkbox"/> 5	<a href="#">DGBGL-AA</a>	Gigabit	<a href="#">2</a>	<a href="#">2</a>	<a href="#">Module 5</a>	<input type="text" value="Module 5"/>
<input type="checkbox"/> 6	<a href="#">DGBGT-AA</a>	Fast Ethernet	<a href="#">20</a>	<a href="#">20</a>	<a href="#">Module 6</a>	<input type="text" value="Module 6"/>

- On the module you want to configure, click on the number of ports listed in the ports column (**2** or **4** for gigabit modules). The Port Information form displays.

Port Configuration - Module 2								
Port	Name	Enable	Status	Type	Connector	Auto Negotiation Mode	Speed State	Duplex State
2.1	<a href="#">Port 2.1</a>	<input checked="" type="checkbox"/>	Link Failure	Gigabit	Fiber SC	Disabled	1 Gb/s	Full Duplex
2.2	<a href="#">Port 2.2</a>	<input checked="" type="checkbox"/>	Link Failure	Gigabit	Fiber SC	Disabled	1 Gb/s	Full Duplex

[Next Module](#)
[Modules](#)
[All Module Ports Configuration](#)

- To enable or disable a port:
  - Click the box in the Enable column to enable a port, or click to uncheck Enable if you want to disable the port.
  - Click **Apply** to perform the operation. **Cancel** returns the display to the current switch settings.

Step	Action
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4 To set additional parameters, click on the port name in the **Name** column. The Detailed Port Configuration window displays.

**Detailed Port Configuration - Module 5 Port 1**

Name	Port 5.1
Flow Control Mode	Disable

[Next Port](#)
[Module](#)

- 5 Set the port name by typing a port name in the **Name** field.
- 6 If you want this port to use flow control to prevent buffer overflows, set Flow Control Mode to **enable** using the drop-down list. Disable this feature only when flow control is causing congestion in other areas of the network.
- 7 To apply the settings to the port, click **Apply**. **Cancel** returns the display to the current switch settings.

**Configuring Physical Port Parameters on Fast Ethernet Ports**

You can set the following attributes on Fast Ethernet ports:

**10/100 Port Settable Attributes**

Attribute	Purpose
Enable/Disable	Determines whether the port is able to forward traffic.
Port Name	A user-assigned name for this port (possibly a drop name or the name of the station or other device connected to the port).
Speed Mode (10/100 ports)	Lets you select the speed of the port manually (to either 10 or 100 Mb/s). If auto-negotiation is enabled, this setting is ignored.
Port Duplex Mode (10/100 ports)	Lets you set the port duplex mode (half- or full-duplex). If auto-negotiation is enabled, this setting is ignored.
Flow Control Mode	<p>If the port is set to half-duplex mode, this setting determines whether active backpressure is used on this port. Active backpressure jams the sending Ethernet channel until the port's buffers can receive more packets.</p> <p>If the port is set to full-duplex mode, this setting determines whether IEEE 802.3x pause control is used on this port. The pause mechanism allows the port to stop a sending station from sending more packets if the receiving port's buffers are full.</p> <p>Enabling flow control helps prevent lost or dropped packets.</p>

### 10/100 Port Settable Attributes (Continued)

Attribute	Purpose
Auto-negotiation Mode	Allows you to set the port to auto-negotiate a speed and duplex mode. Auto-negotiation works best when the connection on the other end of the link is set to auto-negotiate as well. If you set a port to auto-negotiate, and the connection is not successful, set the port speed and duplex mode manually.
Auto-negotiating Speed/Duplexity Advertisement	Determines what information the port advertises when it starts auto-negotiating. In most cases, <b>10/100</b> and <b>Half/Full</b> are the best settings, but there may be cases when you want to auto-negotiate one parameter, while keeping the other fixed.
Rate Limit Mode	This feature helps prevent the switch from overwhelming the output buffer on lower-speed ports by placing a threshold on the percentage of port traffic that can be flooded packets (unknown broadcasts, unicasts, and multicasts). You can optionally include known multicast packets in this percentage to further decrease the possibility of the port's output buffer being overwhelmed.

To configure ports on a Fast Ethernet module:

Step	Action
1	From the menu on the left side of the browser window, select <b>Modules &amp; Ports</b> . A list of modules in the switch displays.
2	On the module you are configuring, click the number of ports listed in the ports column ( <b>10</b> for 100BASE-FX, for example). The Port Configuration form displays.

Port	Name	Enable	Status	Type	Connector	Auto Negotiation Mode	Speed State	Duplex State
5.1	<a href="#">Port 5.1</a>	<input type="checkbox"/>	Okay	10/100 Tx	RJ45	Enabled	100 Mb/s	Full Duplex
5.2	<a href="#">Port 5.2</a>	<input checked="" type="checkbox"/>	Okay	10/100 Tx	RJ45	Enabled	10 Mb/s	Half Duplex
5.3	<a href="#">Port 5.3</a>	<input checked="" type="checkbox"/>	Link Failure	10/100 Tx	RJ45	Enabled	Auto-Negotiating	Auto-Negotiating
5.4	<a href="#">Port 5.4</a>	<input checked="" type="checkbox"/>	Link Failure	10/100 Tx	RJ45	Enabled	Auto-Negotiating	Auto-Negotiating
5.5	<a href="#">Port 5.5</a>	<input checked="" type="checkbox"/>	Link Failure	10/100 Tx	RJ45	Enabled	Auto-Negotiating	Auto-Negotiating

- 3 To enable or disable a port:
- Click the box in the Enable column to enable a port, or click to uncheck Enable if you want to disable the port.
  - Click **Apply** to perform the operation. **Cancel** returns the display to the current switch settings.

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Step	Action
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- 4 To set additional parameters, click on the port name in the **Name** column. The Detailed Port Configuration window displays.

Name	Port 6.1
Speed Mode	100 Mbps
Duplex Mode	Full Duplex
Flow Control Mode	Disable
Auto Negotiation Mode	Enable
Auto Negotiation Speed Advertisement	10/100 Mbps
Auto Negotiation Duplex Advertisement	Full/Half Duplex
Rate Limit Mode	Disable
Rate Limit Rate	20%
Rate Limit Burst Size	256

APPLY CANCEL [Next Port](#) [Module](#)

- 5 Set the port name by typing a port name in the **Name** field.
- 6 If you want to set the port speed manually, select a speed (**10 Mb/s** or **100 Mb/s**) from the drop-down list. If you set the port to auto-negotiate, this setting is ignored.
- 7 If you want to set the port's duplex mode manually, select a mode (**Half-duplex** or **Full-duplex**) from the drop-down list. If you set the port to auto-negotiate, this setting is ignored.
- 8 If you want this port to use Flow Control to prevent buffer overflows, set Flow Control Mode to **enable** using the drop-down list. Disable this feature only when flow control is causing congestion in other areas of the network.
- 9 Set the Auto-negotiate Mode for the port (**enable** or **disable**) from the drop-down list.  
Note: This feature works best when the port or device on the other end of the connection auto-negotiates as well. If you are having problems with auto-negotiating connections, try setting the modes manually.
- 10 Set an Auto-negotiating Speed and Auto-negotiating Duplex Advertisement using the drop-down lists. The switch sends these values to the device on the other end of the connection at the start of the auto-negotiating process. In general, the defaults are best, but there may be situations when you want to fix one setting, but allow the other setting to auto-negotiate.

Step	Action
11	<p>If you want this port to limit the number of unknown unicast and multicast (flooded) packets it tries to forward, set the Rate Limit Mode to <b>enable</b>, then:</p> <ul style="list-style-type: none"> <li>a Select the percentage of a port's traffic that can be unknown unicast and broadcast packets. Enter this value in the Rate Limit Rate field. Lower this value if the port is having overflow problems.</li> <li>b Set a Rate Limit Burst size to limit the number of packets allowed in a single burst. Legal values are 1 to 2048. For Fast Ethernet ports, set this value lower than 1024 (the output buffer's capacity). Set this value lower if the port is experiencing overflow problems.</li> </ul>
12	To apply the settings to the port, click <b>Apply</b> . <b>Cancel</b> returns the display to the current switch settings.

### Using the All Module Ports Configuration Screen

The All Module Ports Configuration screen lets you apply the same parameter settings to all ports in a module using a single command. To do this:

Step	Action
1	Select <b>All Module Ports Configuration</b> from the Port Configuration screen.
2	Set port parameters as described in <a href="#">Configuring Physical Port Parameters on Gigabit Ports on page 17</a> and <a href="#">Configuring Physical Port Parameters on Fast Ethernet Ports on page 19</a> .
3	Click <b>Apply</b> to apply the changes to all ports on the module.

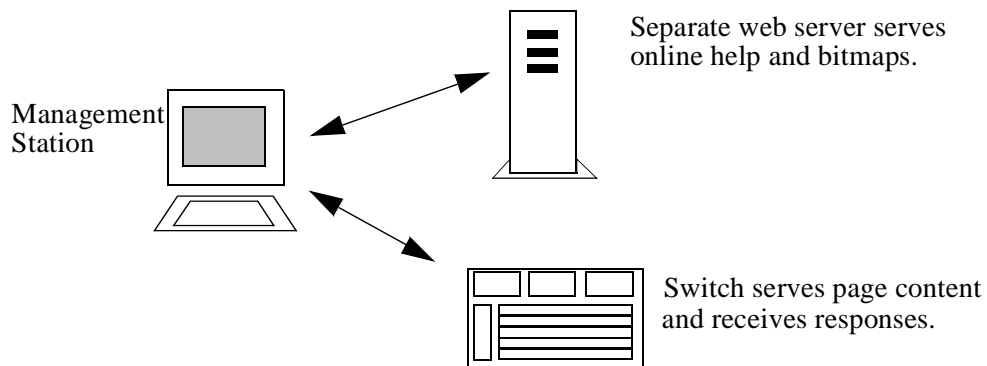
Refer to the *DIGITAL GIGAswitch/Ethernet System Installation and Operation Guide* for information about advanced configuration options.

## Setting Up the Information Server

The DIGITAL GIGAswitch/Ethernet System Information Library CD provides resources used by the web agent. These resources are located off the switch on a web server to preserve switch memory. Although they are not essential to the operation of the web agent, these resources provide you with:

- Online help for the web agent
- Bitmaps used as part of the web agent's interface display (logo, wallpaper)
- Online documentation

Setting up a server location for the switch allows the switch to access this information. The illustration below provides a snapshot of how the communication works:



The library's Setup program provides you with options for serving this information to the switch. You can:

- Add the Information Library to an existing server on your network.
- Install the Information Library and its HTTP server software. The machine on which you install the library's server software must be running either Windows 95 or Windows NT.

To set up the Information Library:

Step	Action
1	Run <b>Setup.exe</b> .
2	Follow the instructions presented on the screen to install the library with the options you prefer.
3	Enter the server location in the switch using the web agent interface as described in <a href="#">Setting the Server Location on page 24</a> .

The library is also available from the DIGITAL Network Products Home Page on the World Wide Web. See [page 1](#) for access information.

## Setting the Server Location

To set the location of the Information Library server in the switch:

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Step	Action
1	From the menu on the left side of the web browser display, select <b>Server Location</b> .
2	Enter the host name or IP address of the HTTP server at the Http Server Location prompt. If you are using the DIGITAL server, follow the server name with “:2010”. For example, for a host named “phantom,” enter: <b>http://phantom:2010</b>
3	Enter <b>help</b> at the Help Directory Location prompt.
4	Click <b>Apply</b> .

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### NOTE

Web agent performance may slow down if the Information Library server becomes unavailable. If this occurs, click **Stop** button on the browser (this stops the switch from searching for the server), then delete the Server Location description until the server becomes available again.

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