APPENDIX B

Configuration Worksheets

This appendix includes instructions, examples, and blank worksheets used for the initial installation and subsequent maintenance of the Catalyst 5000 series switch. Following is a list of worksheets:

- Switch Installation Checklist
- Switch Checklists
- Port Configuration Worksheet Supervisor Engine Module
- Port Configuration Worksheet Slot Number 2
- Port Configuration Worksheet Slot Number 3
- Port Configuration Worksheet Slot Number 4
- Port Configuration Worksheet Slot Number 5
- Site Log

Obtain copies of the worksheets shown in Figure B-1, Figure B-2, Figure B-3, Figure B-22, Figure B-23, Figure B-24, Figure B-25, Figure B-26, and Figure B-27 before continuing so that as you proceed through the following descriptions, you can record your information on the copies.

Each of the forms should be completed and kept in a safe place for future reference in the permanent site record.

The worksheets are described in the following sections.

Switch Installation Checklists

The Switch Installation Checklist is used to confirm that you have all of the information needed to install and configure the Catalyst 5000 series switch and that all of the components are installed and operating correctly.

Before starting the installation, copy the Switch Installation Checklist shown in Figure B-1. Each task in the Switch Installation Checklist should be verified by the person performing the installation and then dated for the permanent site record.

Every task in the Switch Installation Checklist is listed in the index and described in detail in previous chapters of this document.

Figure B-1 Switch Installation Checklist

Task	Verified by	Date
Date switch received		
Switch and all components unpacked		
Chassis components verified		
Safety recommendations reviewed		
Installation Checklist copied		
Site Log established and background information entered		
Site power voltages verified		
Site environmental specifications verified		
IP addresses (if needed) assigned		
Required tools available		
Network connection equipment available		
Switch mounted in rack		
Second (optional) power supply installed		
AC power supplies connected to AC sources (separate lines if required)		
All ejector levers checked and secure		
Captive installation screws on supervisor engine module, line modules and power supplies checked		
Network interface cables and devices connected		
ASCII terminal attached to the console port		
Console port set for 9600 baud, 8 data bits, 2 stop bits, no parity		
All power supplies turned ON		
PS1 and PS2 power LEDs on for all power supplies		
System boot complete (normal LEDs)		
Supervisor engine module, and all line modules operational (status LED on supervisor engine and all line modules)		

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Switch Checklists

The Switch Accessories Box Components Checklist in Figure B-2 and the Switch System Components Checklist in Figure B-3 list all of the hardware and documentation items needed to complete this installation. Before starting the installation process, the person unpacking the equipment should verify each component in the two checklists. Every component in the Switch System Components Checklist is listed in the index and described in this document.

Note Keep a copy of these checklists for the permanent site record.

Figure B-2 Switch Accessories Box Components Checklist

Component	Description	Received
Chassis	Switch chassis	
Power cables	One power cable for each power supply received (may be shipped separately)	
Other optional equipment	Optional second power supply for redundant power feature	
	Ethernet transceiver	
Documentation[1]	Unpacking Instructions (on the outside of the shipping container)	
	Cisco 5000 Series User Guide (this publication)	
	Software license agreement	

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[1] Documentation does not ship by default. You must specify the type and quantity of documentation sets when you order the hardware. Documentation is also available on UniverCD.

Figure B-3 Switch System Components Checklist

Component	Description	Received
Chassis	Switch Chassis	
Supervisor engine module	Installed in the top slot	
Fast Ethernet switched module (10/100BaseTX 12 port)	Enter slot locations and port addresses on the port Configuration Worksheet	
Ethernet switched module (100BaseTX 12 port)	Enter slot locations and port addresses on the port Configuration Worksheet	
Segment switching Ethernet module (10BaseT 48Port)	Enter slot locations and port addresses on the port Configuration Worksheet	
Ethernet switched module (10BaseT 24 port)	Enter slot locations and port addresses on the port Configuration Worksheet	
Fast Ethernet switched module (100BaseFX 12 port)	Enter slot locations and port addresses on the port Configuration Worksheet	
Ethernet switched module (10BaseFL12 port)	Enter slot locations and port addresses on the port Configuration Worksheet	
ATM LAN emulation module (multimode fiber)	Enter slot locations and port addresses on the port Configuration Worksheet	
ATM LAN emulation module (single-mode fiber)	Enter slot locations and port addresses on the port Configuration Worksheet	
ATM LAN emulation module (UTP)	Enter slot locations and port addresses on the port Configuration Worksheet	
FDDI switching module (multimode fiber)	Enter slot locations and port addresses on the port Configuration Worksheet	
FDDI switching module (single-mode fiber)	Enter slot locations and port addresses on the port Configuration Worksheet	
CDDI switching module	Enter slot locations and port addresses on the port Configuration Worksheet	
Other equipment	Enter slot locations and port addresses on the port Configuration Worksheet	

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Port Configuration Worksheets

The Port Configuration Worksheet is used during the software configuration process.

Each heading in the Port Configuration Worksheet should be completed by the person configuring the switch and kept for the permanent site record.

Every component in the Port Configuration Checklist is listed in the index and described in detail in previous chapters of this document.

Using the Port Configuration Worksheets

This section contains two sample Catalyst series switch configurations and the corresponding port configuration forms.

Single Switch Configuration Example

The single Catalyst 5000 series switch example is shown in Figure B-4, and the completed Port Configuration Worksheets are shown in Figure B-5 through Figure B-9.

This first configuration shows a very simple case which includes the following elements:

- 1 full-duplex Fast Ethernet connection to a router
- 13 half-duplex Fast Ethernet connections to servers
- 12 half-duplex 10BaseFL Ethernet connections to servers
- 24 full-duplex 10BaseT Ethernet connections to network devices
- 24 half-duplex 10BaseT Ethernet connections to network devices
- Low traffic priority assignments for all 10BaseT and 10BaseFL connections
- High traffic priority assignments for all Fast Ethernet connections

For simplicity, Figure B-4 shows all devices on each module as either full or half duplex. Each port on each module can be independently configured for either full or half duplex operation. This is illustrated in the following example.

For simplicity, Figure B-5 shows a direct correlation between port speed and traffic priority; the two parameters are completely independent of one another.

Figure B-4 Single Catalyst 5000 Series Switch Configuration

Slot	Module Type
1	Supervisor Module
2	10/100BaseTX
3	10BaseFL
4	10BaseT
5	10BaseT

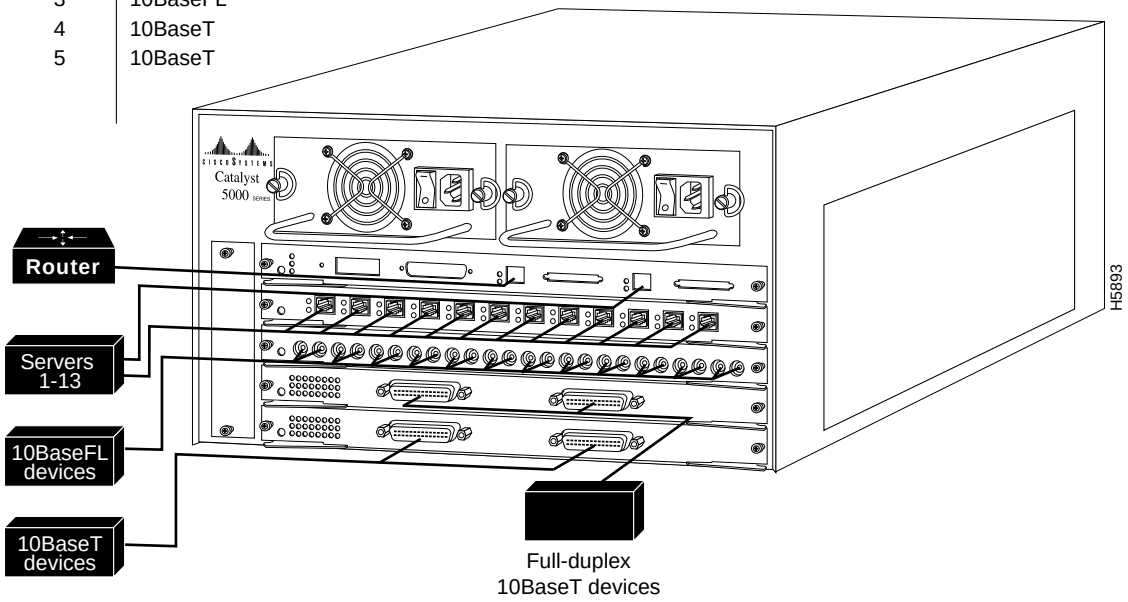
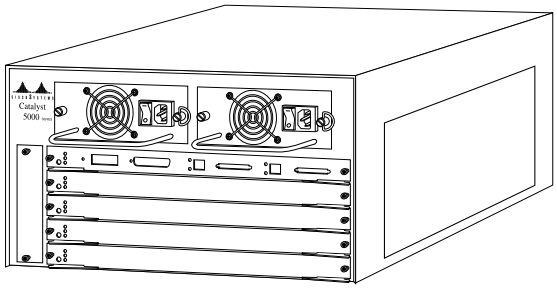


Figure B-5 Port Configuration Worksheet for the Supervisor Engine Module—Single Switch

Switch name: single_switch
IP address: 192.133.0.1
Location: Corporate
Serial no: 12345



Slot/Port No.	Module Type	Name	VLAN No.	Priority Level (High/Normal)	Duplex (Full/Half)	Speed (10/100 Mbps)
1/1	Supervisor Engine	Router connection	1	Hi	FD	100
1/2		Server 1	1	Hi	HD	100

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Figure B-6 Port Configuration Worksheet Slot Number 2—Single Switch

Slot/Port No.	Module Type	Name	VLAN No.	Priority Level (High/Normal)	Duplex (Full/Half)	Speed (10/100 Mbps)
2/1	10/100BaseTX	Server 2	1	Hi	HD	auto
2/2		Server 3				
2/3		Server 4				
2/4		Server 5				
2/5		Server 6				
2/6		Server 7				
2/7		Server 8				
2/8		Server 9				
2/9		Server 10				
2/10		Server 11				
2/11		Server 12				
2/12		Server 13				
2/13						
2/14						
2/15						
2/16						
2/17						
2/18						
2/19						
2/20						
2/21						
2/22						
2/23						
2/24						

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Figure B-7 Port Configuration Worksheet Slot Number 3—Single Switch

Slot/Port No.	Module Type	Name	VLAN No.	Priority Level (High/Normal)	Duplex (Full/Half)	Speed (10/100 Mbps)
3/1	10BaseT 12 port	Nodename 1	1	Hi	HD	100
3/2		Nodename 2				
3/3		Nodename 3				
3/4		Nodename 4				
3/5		Nodename 5				
3/6		Nodename 6				
3/7		Nodename 7				
3/8		Nodename 8				
3/9		Nodename 9				
3/10		Nodename 10				
3/11		Nodename 11				
3/12		Nodename 12				
3/13						
3/14						
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3/16						
3/17						
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3/19						
3/20						
3/21						
3/22						
3/23						
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Figure B-8 Port Configuration Worksheet Slot Number 4—Single Switch

Slot/Port No.	Module Type	Name	VLAN No.	Priority Level (High/Normal)	Duplex (Full/Half)	Speed (10/100 Mbps)
4/1	10BaseT 24 port	Nodename 13	1	Lo	FD	10
4/2		Nodename 14	↓	↓	↓	↓
4/3		Nodename 15				
4/4		Nodename 16				
4/5		Nodename 17				
4/6		Nodename 18				
4/7		Nodename 19				
4/8		Nodename 20				
4/9		Nodename 21				
4/10		Nodename 22				
4/11		Nodename 23				
4/12		Nodename 24				
4/13		Nodename 25				
4/14		Nodename 26				
4/15		Nodename 27				
4/16		Nodename 28				
4/17		Nodename 29				
4/18		Nodename 30				
4/19		Nodename 31				
4/20		Nodename 32				
4/21		Nodename 33				
4/22		Nodename 34				
4/23		Nodename 35				
4/24		Nodename 36	▼	▼	▼	▼

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Figure B-9 Port Configuration Worksheet Slot Number 5—Single Switch

Slot/Port No.	Module Type	Name	VLAN No.	Priority Level (High/Normal)	Duplex (Full/Half)	Speed (10/100 Mbps)
51	10BaseT 24 port	Nodename 37	1	Lo	FD	10
5/2		Nodename 38				
5/3		Nodename 39				
5/4		Nodename 40				
5/5		Nodename 41				
5/6		Nodename 42				
5/7		Nodename 43				
5/8		Nodename 44				
5/9		Nodename 45				
5/10		Nodename 46				
5/11		Nodename 47				
5/12		Nodename 48				
5/13		Nodename 49				
5/14		Nodename 50				
5/15		Nodename 51				
5/16		Nodename 52				
5/17		Nodename 53				
5/18		Nodename 54				
5/19		Nodename 55				
5/20		Nodename 56				
5/21		Nodename 57				
5/22		Nodename 58				
5/23		Nodename 59				
5/24		Nodename 60				

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Dual Switch Configuration Example

The more complex dual Catalyst 5000 series switch examples are shown in Figure B-10 and Figure B-11, and the completed Port Configuration Worksheets are shown in Figure B-12 through Figure B-21.

This configuration shows a more complex example using ISL and VLAN connections, which includes the following elements:

- Catalyst number one and number two are connected together through an ISL.
- Catalyst number one is connected to an ATM backbone.
- Catalyst number two is connected to a legacy FDDI ring for distribution servers.
- Three full-duplex Fast Ethernet connections: one for each virtual LAN and to a router.
- Twenty-three half-duplex Fast Ethernet connections to servers on VLANs 1 and 2.
- Sixty full- and half-duplex 10BaseT Ethernet connections to network devices on three different VLANs.
- Twelve half-duplex 10BaseFL Ethernet connections to network devices on three different VLANs.
- High traffic priority assignments for all Fast Ethernet connections.
- High traffic priority assignments for all 10BaseFL connections.
- A mix of normal and high traffic assignments for 10BaseT connections.

Figure B-10 shows a direct correlation between port speed and traffic priority, the two parameters that are completely independent of one another.

Figure B-10 Dual Catalyst 5000 Series Switch Configuration—Switch One

Slot	Module Type
1	Supervisor Module
2	ATM LAN Emulation
3	10/100BaseTX
4	10BaseFL
5	10BaseT

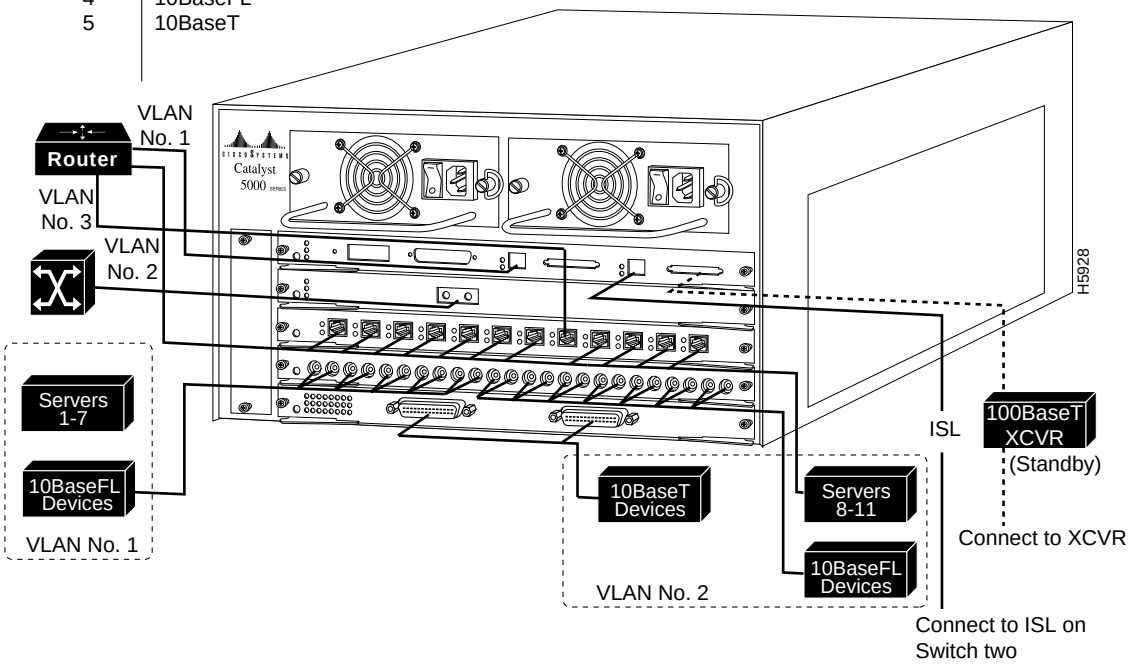


Figure B-11 Dual Catalyst 5000 Series Switch Configuration—Switch Two

Slot	Module Type
1	Supervisor Module
2	FDDI
3	10BaseT
4	10/100BaseTX
5	10BaseFL

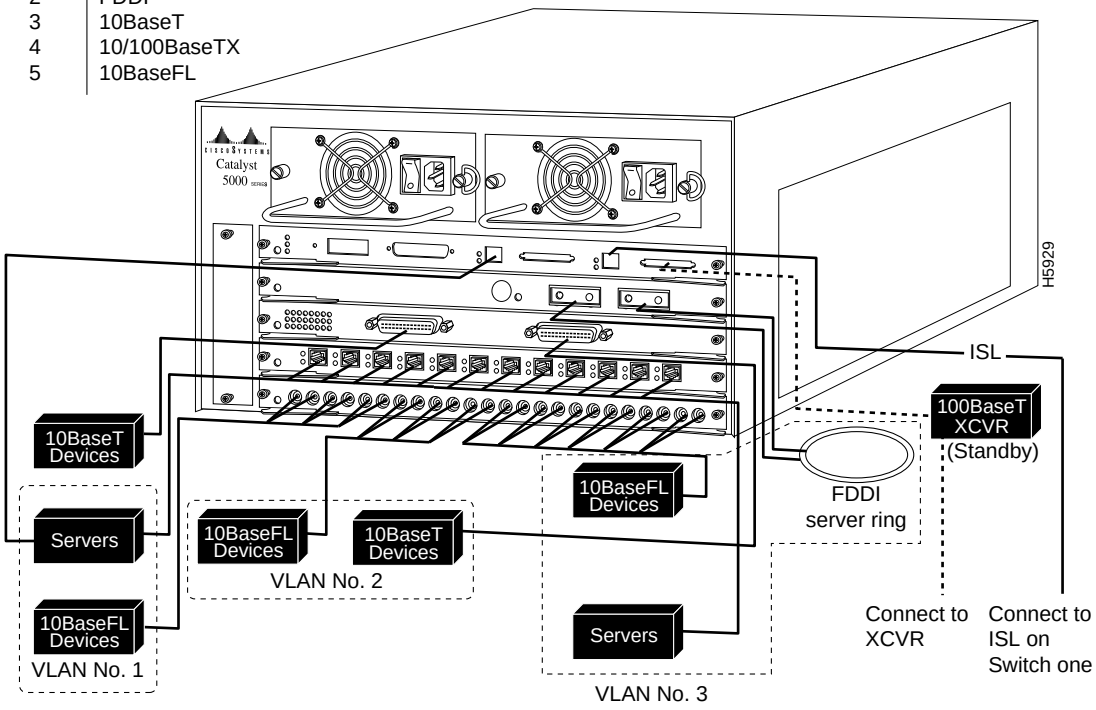
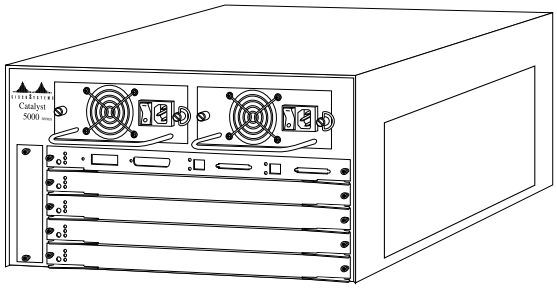


Figure B-12 Port Configuration Worksheet Slot Number 1—Dual Switch One

Switch name: dual_switch_one
IP address: 192.133.0.1
Location: Corporate
Serial no: 12346



Slot/Port No.	Module Type	Name	VLAN No.	Priority Level (High/Normal)	Duplex (Full/Half)	Speed (10/100 Mbps)
1/1	Supervisor	Router connection	1	Hi	FD	100
1/2	Engine	Switch 2	ISL	Hi	HD	100

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Figure B-13 Port Configuration Worksheet Slot Number 2—Dual Switch One

Slot/Port No.	Module Type	Name	VLAN No.	Priority Level (High/Normal)	Duplex (Full/Half)	Speed (10/100 Mbps)
2/1	ATM LAN Emulation	ATM Connection	1-3	NA	NA	155
2/2						
2/3						
2/4						
2/5						
2/6						
2/7						
2/8						
2/9						
2/10						
2/11						
2/12						
2/13						
2/14						
2/15						
2/16						
2/17						
2/18						
2/19						
2/20						
2/21						
2/22						
2/23						
2/24						

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Figure B-14 Port Configuration Worksheet Slot Number 3—Dual Switch One

Slot/Port No.	Module Type	Name	VLAN No.	Priority Level (High/Normal)	Duplex (Full/Half)	Speed (10/100 Mbps)
3/1	10/100BaseTX	Server 01	1	Hi	HD	auto
3/2		Server 02	↓	↓	↓	↓
3/3		Server 03	↓	↓	↓	↓
3/4		Server 04	↓	↓	↓	↓
3/5		Server 05	↓	↓	↓	↓
3/6		Server 06	↓	↓	↓	↓
3/7		Router	3	↓	↓	↓
3/8		To Router	2	↓	↓	↓
3/9		Server 08	↓	↓	↓	↓
3/10		Server 09	↓	↓	↓	↓
3/11		Server 10	↓	↓	↓	↓
3/12		Server 11	↓	↓	↓	↓
3/13						
3/14						
3/15						
3/16						
3/17						
3/18						
3/19						
3/20						
3/21						
3/22						
3/23						
3/24						

H5910

Figure B-15 Port Configuration Worksheet Slot Number 4—Dual Switch One

Slot/Port No.	Module Type	Name	VLAN No.	Priority Level (High/Normal)	Duplex (Full/Half)	Speed (10/100 Mbps)
4/1	10BaseFL 12 port	Nodename 01	1	Lo	FD	10
4/2		Nodename 02				
4/3		Nodename 03				
4/4		Nodename 04				
4/5		Nodename 05				
4/6		Nodename 06	2			
4/7		Nodename 07				
4/8		Nodename 08				
4/9		Nodename 09				
4/10		Nodename 10				
4/11		Nodename 11				
4/12		Nodename 12				
4/13						
4/14						
4/15						
4/16						
4/17						
4/18						
4/19						
4/20						
4/21						
4/22						
4/23						
4/24						

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Figure B-16 Port Configuration Worksheet Slot Number 5—Dual Switch One

Slot/Port No.	Module Type	Name	VLAN No.	Priority Level (High/Normal)	Duplex (Full/Half)	Speed (10/100 Mbps)
5/1	10BaseT 24 port	Nodename 13	1	Lo	FD	10
5/2		Nodename 14	↓	↓	↓	↓
5/3		Nodename 15				
5/4		Nodename 16				
5/5		Nodename 17				
5/6		Nodename 18				
5/7		Nodename 19				
5/8		Nodename 20				
5/9		Nodename 21				
5/10		Nodename 22				
5/11		Nodename 23				
5/12		Nodename 24				
5/13		Nodename 25				
5/14		Nodename 26				
5/15		Nodename 27				
5/16		Nodename 28				
5/17		Nodename 29				
5/18		Nodename 30				
5/19		Nodename 31				
5/20		Nodename 32				
5/21		Nodename 33				
5/22		Nodename 34				
5/23		Nodename 35				
5/24		Nodename 36	↓	↓	↓	↓

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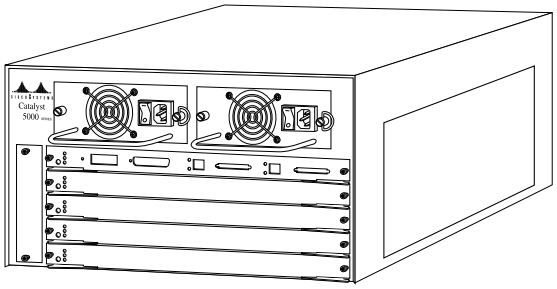
Figure B-17 Port Configuration Worksheet Slot Number 1—Dual Switch Two Example

Switch name: dual_switch_two
IP address: 192.132.02.2
Location: Corporate
Serial no: 12347



Slot/Port No.	Module Type	Name	VLAN No.	Priority Level (High/Normal)	Duplex (Full/Half)	Speed (10/100 Mbps)
1/1	Supervisor	Servers	1	Hi	FD	100
1/2	Engine	Switch 1	ISL	Hi	HD	100

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Figure B-18 Port Configuration Worksheet Slot Number 2—Dual Switch Two

Slot/Port No.	Module Type	Name	VLAN No.	Priority Level (High/Normal)	Duplex (Full/Half)	Speed (10/100 Mbps)
2/1	FDDI Module	Server FDDI Ring	3	NA	NA	100
2/2						
2/3						
2/4						
2/5						
2/6						
2/7						
2/8						
2/9						
2/10						
2/11						
2/12						
2/13						
2/14						
2/15						
2/16						
2/17						
2/18						
2/19						
2/20						
2/21						
2/22						
2/23						
2/24						

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Figure B-19 Port Configuration Worksheet Slot Number 3—Dual Switch Two

Slot/Port No.	Module Type	Name	VLAN No.	Priority Level (High/Normal)	Duplex (Full/Half)	Speed (10/100 Mbps)
3/1	10BaseT 24 port	Nodename 37	1	Lo	FD	10
3/2		Nodename 38				
3/3		Nodename 39				
3/4		Nodename 40				
3/5		Nodename 41				
3/6		Nodename 42				
3/7		Nodename 43				
3/8		Nodename 44				
3/9		Nodename 45				
3/10		Nodename 46				
3/11		Nodename 47				
3/12		Nodename 48				
3/13		Nodename 49	2			
3/14		Nodename 50				
3/15		Nodename 51				
3/16		Nodename 52				
3/17		Nodename 53				
3/18		Nodename 54				
3/19		Nodename 55				
3/20		Nodename 56				
3/21		Nodename 58				
3/22		Nodename 59				
3/23		Nodename 60				
3/24		Nodename 61				

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Figure B-20 Port Configuration Worksheet Slot Number 4—Dual Switch Two

Slot/Port No.	Module Type	Name	VLAN No.	Priority Level (High/Normal)	Duplex (Full/Half)	Speed (10/100 Mbps)
4/1	10/100BaseTX	Server 12	1	Hi	HD	auto
4/2		Server 13				
4/3		Server 14				
4/4		Server 15				
4/5		Server 16	3			
4/6		Server 17				
4/7		Server 18				
4/8		Server 19				
4/9		Server 20				
4/10		Server 21				
4/11		Server 22				
4/12		Server 23				
4/13						
4/14						
4/15						
4/16						
4/17						
4/18						
4/19						
4/20						
4/21						
4/22						
4/23						
4/24						

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Figure B-21 Port Configuration Worksheet Slot Number 5—Dual Switch Two

Slot/Port No.	Module Type	Name	VLAN No.	Priority Level (High/Normal)	Duplex (Full/Half)	Speed (10/100 Mbps)
5/1	10BaseFL 12 port	Nodename 62	1	Hi	HD	10
5/2		Nodename 63	1			
5/3		Nodename 64	1			
5/4		Nodename 65	2			
5/5		Nodename 66	2			
5/6		Nodename 67	2			
5/7		Nodename 68	3			
5/8		Nodename 69	3			
5/9		Nodename 70	3			
5/10		Nodename 71	3			
5/11		Nodename 72	3			
5/12		Nodename 73	3			
5/13						
5/14						
5/15						
5/16						
5/17						
5/18						
5/19						
5/20						
5/21						
5/22						
5/23						
5/24						

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Port Configuration Worksheet Masters

Figure B-22, Figure B-23, Figure B-24, Figure B-25, and Figure B-26 are the blank Port Configuration Worksheets you can fill out before starting to configure the Catalyst 5000 series switch.

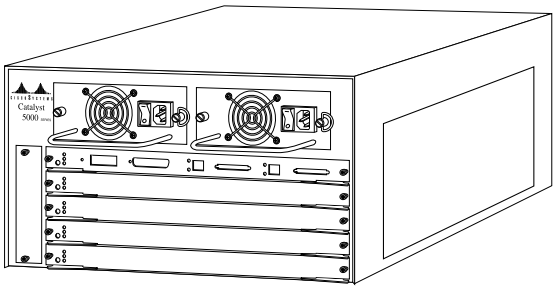
Figure B-22 Port Configuration Worksheet Supervisor Engine Module

Switch name: _____

IP address: _____

Location: _____

Serial no: _____



Slot/Port No.	Module Type	Name	VLAN No.	Priority Level (High/Normal)	Duplex (Full/Half)	Speed (10/100 Mbps)
1/1	Supervisor Engine					
1/2						

H3078

Figure B-23 Port Configuration Worksheet Slot Number 2

Slot/Port No.	Module Type	Name	VLAN No.	Priority Level (High/Normal)	Duplex (Full/Half)	Speed (10/100 Mbps)
2/1						
2/2						
2/3						
2/4						
2/5						
2/6						
2/7						
2/8						
2/9						
2/10						
2/11						
2/12						
2/13						
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2/22						
2/23						
2/24						

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Figure B-24 Port Configuration Worksheet Slot Number 3

Slot/Port No.	Module Type	Name	VLAN No.	Priority Level (High/Normal)	Duplex (Full/Half)	Speed (10/100 Mbps)
3/1						
3/2						
3/3						
3/4						
3/5						
3/6						
3/7						
3/8						
3/9						
3/10						
3/11						
3/12						
3/13						
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3/20						
3/21						
3/22						
3/23						
3/24						

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Figure B-25 Port Configuration Worksheet Slot Number 4

Slot/Port No.	Module Type	Name	VLAN No.	Priority Level (High/Normal)	Duplex (Full/Half)	Speed (10/100 Mbps)
4/1						
4/2						
4/3						
4/4						
4/5						
4/6						
4/7						
4/8						
4/9						
4/10						
4/11						
4/12						
4/13						
4/14						
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4/17						
4/18						
4/19						
4/20						
4/21						
4/22						
4/23						
4/24						

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Figure B-26 Port Configuration Worksheet Slot Number 5

Slot/Port No.	Module Type	Name	VLAN No.	Priority Level (High/Normal)	Duplex (Full/Half)	Speed (10/100 Mbps)
5/1						
5/2						
5/3						
5/4						
5/5						
5/6						
5/7						
5/8						
5/9						
5/10						
5/11						
5/12						
5/13						
5/14						
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5/22						
5/23						
5/24						

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Site Log

The Site Log (see Figure B-27) is used during subsequent maintenance of the switch. A detailed description of actions performed and symptoms observed should be completed by the person performing the maintenance and kept as part of the permanent site record.

Figure B-27 Site Log

Date	Description of Action Performed or Symptom Observed	Initiate

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