```
ASW2#
ASW2#show running-config
Building configuration...
Current configuration: 3795 bytes
version 12.1
no service pad
service timestamps debug uptime
service timestamps log uptime
no service password-encryption
!
hostname ASW2
enable secret 5 $1$YjQA$8IZI6/8ArQFD/ct60ebrY.
ip subnet-zero
!
spanning-tree mode pvst
no spanning-tree optimize bpdu transmission
spanning-tree extend system-id
!
!
interface Port-channel1
 switchport trunk allowed vlan 20,200
 switchport mode trunk
flowcontrol send off
interface Port-channel2
 switchport trunk allowed vlan 20,200
 switchport mode trunk
flowcontrol send off
!
interface FastEthernet0/1
 switchport access vlan 20
 switchport mode access
 switchport port-security
 shutdown
 spanning-tree portfast
interface FastEthernet0/2
 switchport access vlan 20
 switchport mode access
 switchport port-security
 shutdown
 spanning-tree portfast
interface FastEthernet0/3
 switchport access vlan 20
 switchport mode access
 switchport port-security
```

```
shutdown
spanning-tree portfast
interface FastEthernet0/4
switchport access vlan 20
 switchport mode access
 switchport port-security
shutdown
spanning-tree portfast
interface FastEthernet0/5
switchport access vlan 20
switchport mode access
 switchport port-security
shutdown
spanning-tree portfast
interface FastEthernet0/6
switchport access vlan 20
switchport mode access
switchport port-security
shutdown
spanning-tree portfast
interface FastEthernet0/7
 switchport access vlan 20
switchport mode access
switchport port-security
shutdown
spanning-tree portfast
interface FastEthernet0/8
switchport access vlan 20
 switchport mode access
switchport port-security
shutdown
spanning-tree portfast
interface FastEthernet0/9
switchport access vlan 20
switchport mode access
switchport port-security
shutdown
spanning-tree portfast
interface FastEthernet0/10
switchport access vlan 20
switchport mode access
switchport port-security
shutdown
spanning-tree portfast
interface FastEthernet0/11
 switchport access vlan 20
```

```
switchport mode access
 switchport port-security
 shutdown
spanning-tree portfast
interface FastEthernet0/12
 switchport access vlan 20
 switchport mode access
switchport port-security
shutdown
spanning-tree portfast
interface FastEthernet0/13
 switchport access vlan 20
 switchport mode access
switchport port-security
shutdown
spanning-tree portfast
interface FastEthernet0/14
switchport access vlan 20
 switchport mode access
switchport port-security
shutdown
spanning-tree portfast
interface FastEthernet0/15
switchport access vlan 20
switchport mode access
switchport port-security
spanning-tree portfast
interface FastEthernet0/16
 switchport trunk allowed vlan 20,200
switchport mode trunk
channel-group 2 mode desirable
interface FastEthernet0/17
switchport trunk allowed vlan 20,200
switchport mode trunk
channel-group 2 mode desirable
interface FastEthernet0/18
 switchport trunk allowed vlan 20,200
switchport mode trunk
channel-group 2 mode desirable
interface FastEthernet0/19
 switchport trunk allowed vlan 20,200
 switchport mode trunk
channel-group 1 mode desirable
interface FastEthernet0/20
 switchport trunk allowed vlan 20,200
```

```
switchport mode trunk
 channel-group 1 mode desirable
interface FastEthernet0/21
 switchport trunk allowed vlan 20,200
 switchport mode trunk
channel-group 1 mode desirable
interface FastEthernet0/22
 switchport mode trunk
interface FastEthernet0/23
switchport mode trunk
interface FastEthernet0/24
switchport mode trunk
interface Vlan1
no ip address
no ip route-cache
shutdown
interface Vlan200
ip address 192.168.1.132 255.255.255.224
no ip route-cache
ip http server
line con 0
exec-timeout 0 0
logging synchronous
line vty 0 4
password cisco
login
line vty 5 15
password cisco
login
end
```

ASW2#show ip interface brief								
Interface	IP-Address	OK? Method	d Status					
Protocol Vlan1 down down	unassigned	YES NVRAM	administratively					
Vlan200	192.168.1.132	YES NVRAM	up					
up								
FastEthernet0/1	unassigned	YES unset	administratively					
down down								
FastEthernet0/2	unassigned	YES unset	administratively					
down down								
FastEthernet0/3	unassigned	YES unset	administratively					
down down								
FastEthernet0/4	unassigned	YES unset	administratively					
down down								
FastEthernet0/5	unassigned	YES unset	administratively					
down down	' 1		1					
FastEthernet0/6	unassigned	YES unset	administratively					
down down	' 1		1					
FastEthernet0/7	unassigned	YES unset	administratively					
down down								
FastEthernet0/8	unassigned	YES unset	administratively					
down down								
FastEthernet0/9	unassigned	YES unset	administratively					
down down								

FastEthernet0/10 down down	unassigned	YES unset	administratively
FastEthernet0/11 down down	unassigned	YES unset	administratively
FastEthernet0/12 down down	unassigned	YES unset	administratively
FastEthernet0/13 down down	unassigned	YES unset	administratively
FastEthernet0/14 down down	unassigned	YES unset	administratively
FastEthernet0/15 down	unassigned	YES unset	down
FastEthernet0/16 up	unassigned	YES unset	up
FastEthernet0/17 up	unassigned	YES unset	up
FastEthernet0/18 up	unassigned	YES unset	up
FastEthernet0/19	unassigned	YES unset	up
FastEthernet0/20 up	unassigned	YES unset	up
FastEthernet0/21 up	unassigned	YES unset	up
FastEthernet0/22 down	unassigned . ,	YES unset	down
FastEthernet0/23 down	unassigned	YES unset	down
FastEthernet0/24 down	unassigned	YES unset	down
Port-channel1	unassigned	YES unset	up
Port-channel2 up ASW2#	unassigned	YES unset	up

ASW2#show processes cpu CPU utilization for five seconds: 1%/0%; one minute: 2%; five minutes: 1%								
PID Runti		Invoked	uSecs	5Sec	1Min			Process
1	0	1	0	0.00%	0.00%	0.00%		Chunk
Manager	Ŭ	_	· ·	0.000	0.000	0.000	Ü	Ollalli
2	16	1514	10	0.00%	0.00%	0.00%	0	Load Meter
3	172	41	4195	0.00%		0.00%	0	
Helper								1
4	2048	771	2656	0.00%	0.02%	0.00%	0	Check
heaps								
5	8	3	2666	0.00%	0.00%	0.00%	0	Pool
Manager								
6	4	2	2000	0.00%	0.00%	0.00%	0	Timers
7	40	3	13333	0.00%	0.00%	0.00%	0	Entity MIB
API								
8	12	1892	6	0.00%	0.00%	0.00%	0	HC Counter
Timer								
9	0	132	0	0.00%	0.00%	0.00%		ARP Input
10	0	2	0	0.00%		0.00%		Net Input
11	0	1	0	0.00%	0.00%	0.00%	0	Critical
Bkgnd								
12	2500	3530	708	0.00%	0.01%	0.00%	0	Net
Background								
13	4	43	93	0.00%	0.00%	0.00%		Logger
14	64	7558	8	0.00%	0.00%	0.00%	0	TTY
Background		5.5.0	1.0	0 000	0 000	0 000	0	1
15	76	7568	10	0.00%	0.00%	0.00%	Ü	Per-Second
Jobs	2.6	1 - 1 4	2.2	0 000	0 010	0 000	0	Q
16	36	1514	23	0.00%	0.01%	0.00%	0	Compute
load avg 17	1032	127	8125	0.00%	0 010	0.00%	0	Per-minute
I/ Jobs	1032	12/	0123	U.UU8	0.01%	0.006	U	rer-minute
CODS								

18	4	20	200	0.00%	0.00%	0.00%	0 AggMgr
Process							
19	0	2	0	0.00%	0.00%	0.00%	0 Calhoun
Storm Co	650	100056			0 010		
20	652	189056	3	0.00%	0.01%	0.00%	0 Calhoun
LED Proc							
21	60332	15005	4020	0.73%	0.77%	0.77%	0 Calhoun
Statisti							
22	64	37803	1	0.00%	0.00%	0.00%	0 HMATM
Learn proc							
23	252	16	15750	0.00%	0.00%	0.00%	0 CalhounPM
24	320	37809	8	0.00%	0.03%	0.00%	0 Link
Status Pro							
25	28	37812	0	0.00%	0.00%	0.00%	0 Calhoun
PHY Loop							
26	0	1	0	0.00%	0.00%	0.00%	0
CalhounIns	Ipopti						
27	0	1	0	0.00%	0.00%	0.00%	0 Calhoun
DHCP Sno							
28	1180	1804	654	0.00%	0.00%	0.00%	0 CDP
Protocol							
29	0	64	0	0.00%	0.00%	0.00%	0 DHCP
Snooping							
30	0	127	0	0.00%	0.00%	0.00%	0 IP Input
31	884	2698	327	0.00%	0.00%	0.00%	0 DTP
Protocol							
32	48	759	63	0.00%	0.00%	0.00%	0 Ethchnl
33	156	67	2328	0.00%	0.00%	0.00%	0 VLAN
Manager							
34	4	2	2000	0.00%	0.00%	0.00%	O PI MATM
Aging Pr							
35	20	16	1250	0.00%	0.00%	0.00%	0 VMATM
Callback							
36	9964	15085	660	0.24%	0.04%	0.05%	0 Spanning
Tree							1 3
37	64	7566	8	0.00%	0.00%	0.00%	0 UDLD
38	0	135	0	0.00%	0.00%	0.00%	0 Port-
Security							
39	4	2	2000	0.00%	0.00%	0.00%	0 DHCPD
Receive							
40	0	1	0	0.00%	0.00%	0.00%	0 HTTP Timer
41	0	1	0	0.00%	0.00%	0.00%	0 RARP Input
42	0	1	0	0.00%	0.00%	0.00%	0 TCP Timer
43	0	1	0	0.00%	0.00%	0.00%	0 TCP
Protocols	· ·	-	Ŭ	0.000	0.000	0.000	0 101
44	0	1	0	0.00%	0.00%	0.00%	0 Socket
Timers	O	_	O	0.000	0.000	0.000	o bookee
45	8	16	500	0.00%	0.00%	0.00%	0 L2MM
46	224	633	353	0.00%	0.00%	0.00%	0 MRD
47	48	127	377	0.00%	0.00%	0.00%	0 IGMPSN
48	104	127	818	0.00%	0.00%	0.00%	0 IGMP
Snooping P		121	010	0.00%	0.00.0	0.000	O I GIII
49	236	633	372	0.00%	0.00%	0.00%	0 IGMP
Snooping R		000	314	0.000	0.000	0.000	O TGPTF
prinobilia k	.C						

50	784	3232	242	0.00%	0.00%	0.00%	0	IP
Multicast	Dat							
51	0	2	0	0.00%	0.00%	0.00%	0	L2TRACE
SERVER								
52	0	97	0	0.00%	0.00%	0.00%	0	Cluster L2
53	4	757	5	0.00%	0.00%	0.00%	0	Cluster
RARP								
54	536	1707	314	0.00%	0.01%	0.00%	0	Cluster
Base								
55	1396	189	7386	0.73%	1.45%	0.38%	0	Exec
56	0	64	0	0.00%	0.00%	0.00%	0	DHCPD
Timer								
57	0	2	0	0.00%	0.00%	0.00%	0	Router
Autoconf								
58	0	1	0	0.00%	0.00%	0.00%	0	Syslog
Traps								
59	0	2	0	0.00%	0.00%	0.00%	0	VTPMIB
EDIT BUFF								
60	236	11430	20	0.00%	0.00%	0.00%	0	PM
Callback								
61	8	37	216	0.00%	0.00%	0.00%	0	VTP Trap
Process								_
62	8	2144	3	0.00%	0.00%	0.00%	0	DHCPD
Database								
63	56	7567	7	0.00%	0.00%	0.00%	0	Calhoun
EnvMon P								
64	0	2	0	0.00%	0.00%	0.00%	0	STP STACK
TOPOLO								
65	4	2	2000	0.00%	0.00%	0.00%	0	STP FAST
TRANSIT								
66	0	2	0	0.00%	0.00%	0.00%	0	STP STACK
TOPOLO								
67	0	2	0	0.00%	0.00%	0.00%	0	CSRT RAPID
TRANS								
69	1340	3396	394	0.00%	0.00%	0.00%	0	PAgP
ASW2#								-

```
Vlan1 is administratively down, line protocol is down
  Hardware is CPU Interface, address is 0015.fab8.2880 (bia
0015.fab8.2880)
  MTU 1500 bytes, BW 1000000 Kbit, DLY 10 usec,
     reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation ARPA, loopback not set
  ARP type: ARPA, ARP Timeout 04:00:00
  Last input never, output never, output hang never
  Last clearing of "show interface" counters never
  Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
  Queueing strategy: fifo
  Output queue: 0/40 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
     O packets input, O bytes, O no buffer
     Received 0 broadcasts (0 IP multicast)
     0 runts, 0 giants, 0 throttles
     0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
     O packets output, O bytes, O underruns
     O output errors, 3 interface resets
     O output buffer failures, O output buffers swapped out
Vlan200 is up, line protocol is up
  Hardware is CPU Interface, address is 0015.fab8.2880 (bia
0015.fab8.2880)
  Internet address is 192.168.1.132/27
  MTU 1500 bytes, BW 1000000 Kbit, DLY 10 usec,
     reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation ARPA, loopback not set
  ARP type: ARPA, ARP Timeout 04:00:00
  Last input 02:03:23, output never, output hang never
```

ASW2#show interfaces

```
Last clearing of "show interface" counters never
  Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
 Queueing strategy: fifo
 Output queue: 0/40 (size/max)
  5 minute input rate 1000 bits/sec, 1 packets/sec
  5 minute output rate 10000 bits/sec, 2 packets/sec
    15289 packets input, 1295238 bytes, 0 no buffer
    Received 2 broadcasts (0 IP multicast)
    0 runts, 0 giants, 0 throttles
    0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
    16650 packets output, 10087614 bytes, 0 underruns
    O output errors, 2 interface resets
     O output buffer failures, O output buffers swapped out
FastEthernet0/1 is administratively down, line protocol is down
(disabled)
 Hardware is Fast Ethernet, address is 0015.fab8.2881 (bia
0015.fab8.2881)
 MTU 1500 bytes, BW 100000 Kbit, DLY 100 usec,
     reliability 255/255, txload 1/255, rxload 1/255
 Encapsulation ARPA, loopback not set
 Keepalive set (10 sec)
 Auto-duplex, Auto-speed, media type is 100BaseTX
  input flow-control is unsupported output flow-control is unsupported
 ARP type: ARPA, ARP Timeout 04:00:00
 Last input never, output 02:06:17, output hang never
 Last clearing of "show interface" counters never
 Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
 Queueing strategy: fifo
 Output queue: 0/40 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
    1 packets input, 64 bytes, 0 no buffer
    Received 0 broadcasts (0 multicast)
    0 runts, 0 giants, 0 throttles
    0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
    0 watchdog, 0 multicast, 0 pause input
    O input packets with dribble condition detected
    1 packets output, 64 bytes, 0 underruns
    O output errors, O collisions, 2 interface resets
    O babbles, O late collision, O deferred
    O lost carrier, O no carrier, O PAUSE output
    O output buffer failures, O output buffers swapped out
FastEthernet0/2 is administratively down, line protocol is down
(disabled)
 Hardware is Fast Ethernet, address is 0015.fab8.2882 (bia
0015.fab8.2882)
 MTU 1500 bytes, BW 100000 Kbit, DLY 100 usec,
    reliability 255/255, txload 1/255, rxload 1/255
 Encapsulation ARPA, loopback not set
 Keepalive set (10 sec)
 Auto-duplex, Auto-speed, media type is 100BaseTX
 input flow-control is unsupported output flow-control is unsupported
 ARP type: ARPA, ARP Timeout 04:00:00
 Last input never, output 02:06:19, output hang never
```

```
Last clearing of "show interface" counters never
  Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
  Queueing strategy: fifo
  Output queue: 0/40 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
     1 packets input, 64 bytes, 0 no buffer
     Received 0 broadcasts (0 multicast)
     0 runts, 0 giants, 0 throttles
     0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
     0 watchdog, 0 multicast, 0 pause input
     O input packets with dribble condition detected
     1 packets output, 64 bytes, 0 underruns
     O output errors, O collisions, 2 interface resets
     O babbles, O late collision, O deferred
     O lost carrier, O no carrier, O PAUSE output
     O output buffer failures, O output buffers swapped out
FastEthernet0/3 is administratively down, line protocol is down
(disabled)
  Hardware is Fast Ethernet, address is 0015.fab8.2883 (bia
0015.fab8.2883)
  MTU 1500 bytes, BW 100000 Kbit, DLY 100 usec,
     reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation ARPA, loopback not set
  Keepalive set (10 sec)
 Auto-duplex, Auto-speed, media type is 100BaseTX
  input flow-control is unsupported output flow-control is unsupported
 ARP type: ARPA, ARP Timeout 04:00:00
 Last input never, output 02:06:21, output hang never
  Last clearing of "show interface" counters never
  Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
 Queueing strategy: fifo
 Output queue: 0/40 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
     1 packets input, 64 bytes, 0 no buffer
     Received 0 broadcasts (0 multicast)
     0 runts, 0 giants, 0 throttles
     0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
     0 watchdog, 0 multicast, 0 pause input
     O input packets with dribble condition detected
     1 packets output, 64 bytes, 0 underruns
     O output errors, O collisions, 2 interface resets
     O babbles, O late collision, O deferred
     O lost carrier, O no carrier, O PAUSE output
     O output buffer failures, O output buffers swapped out
FastEthernet0/4 is administratively down, line protocol is down
(disabled)
  Hardware is Fast Ethernet, address is 0015.fab8.2884 (bia
0015.fab8.2884)
 MTU 1500 bytes, BW 100000 Kbit, DLY 100 usec,
     reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation ARPA, loopback not set
 Keepalive set (10 sec)
```

```
Auto-duplex, Auto-speed, media type is 100BaseTX
  input flow-control is unsupported output flow-control is unsupported
 ARP type: ARPA, ARP Timeout 04:00:00
 Last input never, output 02:06:22, output hang never
 Last clearing of "show interface" counters never
 Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
 Queueing strategy: fifo
 Output queue: 0/40 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
    1 packets input, 64 bytes, 0 no buffer
    Received 0 broadcasts (0 multicast)
    0 runts, 0 giants, 0 throttles
    O input errors, O CRC, O frame, O overrun, O ignored
    0 watchdog, 0 multicast, 0 pause input
    O input packets with dribble condition detected
    1 packets output, 64 bytes, 0 underruns
    O output errors, O collisions, 2 interface resets
    O babbles, O late collision, O deferred
    O lost carrier, O no carrier, O PAUSE output
     O output buffer failures, O output buffers swapped out
FastEthernet0/5 is administratively down, line protocol is down
(disabled)
 Hardware is Fast Ethernet, address is 0015.fab8.2885 (bia
0015.fab8.2885)
 MTU 1500 bytes, BW 100000 Kbit, DLY 100 usec,
    reliability 255/255, txload 1/255, rxload 1/255
 Encapsulation ARPA, loopback not set
 Keepalive set (10 sec)
 Auto-duplex, Auto-speed, media type is 100BaseTX
  input flow-control is unsupported output flow-control is unsupported
 ARP type: ARPA, ARP Timeout 04:00:00
 Last input never, output 02:06:24, output hang never
 Last clearing of "show interface" counters never
 Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
 Queueing strategy: fifo
 Output queue: 0/40 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
    1 packets input, 64 bytes, 0 no buffer
    Received 0 broadcasts (0 multicast)
    0 runts, 0 giants, 0 throttles
    O input errors, O CRC, O frame, O overrun, O ignored
    0 watchdog, 0 multicast, 0 pause input
    O input packets with dribble condition detected
    1 packets output, 64 bytes, 0 underruns
    O output errors, O collisions, 2 interface resets
    O babbles, O late collision, O deferred
    O lost carrier, O no carrier, O PAUSE output
    O output buffer failures, O output buffers swapped out
FastEthernet0/6 is administratively down, line protocol is down
(disabled)
  Hardware is Fast Ethernet, address is 0015.fab8.2886 (bia
0015.fab8.2886)
```

```
MTU 1500 bytes, BW 100000 Kbit, DLY 100 usec,
    reliability 255/255, txload 1/255, rxload 1/255
 Encapsulation ARPA, loopback not set
 Keepalive set (10 sec)
 Auto-duplex, Auto-speed, media type is 100BaseTX
  input flow-control is unsupported output flow-control is unsupported
 ARP type: ARPA, ARP Timeout 04:00:00
 Last input never, output 02:06:26, output hang never
 Last clearing of "show interface" counters never
  Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
 Queueing strategy: fifo
 Output queue: 0/40 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
    1 packets input, 64 bytes, 0 no buffer
    Received 0 broadcasts (0 multicast)
    0 runts, 0 giants, 0 throttles
    0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
    0 watchdog, 0 multicast, 0 pause input
    O input packets with dribble condition detected
    1 packets output, 64 bytes, 0 underruns
    O output errors, O collisions, 2 interface resets
    O babbles, O late collision, O deferred
    O lost carrier, O no carrier, O PAUSE output
    O output buffer failures, O output buffers swapped out
FastEthernet0/7 is administratively down, line protocol is down
(disabled)
 Hardware is Fast Ethernet, address is 0015.fab8.2887 (bia
0015.fab8.2887)
 MTU 1500 bytes, BW 100000 Kbit, DLY 100 usec,
    reliability 255/255, txload 1/255, rxload 1/255
 Encapsulation ARPA, loopback not set
 Keepalive set (10 sec)
 Auto-duplex, Auto-speed, media type is 100BaseTX
 input flow-control is unsupported output flow-control is unsupported
 ARP type: ARPA, ARP Timeout 04:00:00
 Last input never, output 02:06:27, output hang never
 Last clearing of "show interface" counters never
 Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
 Queueing strategy: fifo
 Output queue: 0/40 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
    1 packets input, 64 bytes, 0 no buffer
    Received 0 broadcasts (0 multicast)
    0 runts, 0 giants, 0 throttles
    0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
    0 watchdog, 0 multicast, 0 pause input
    O input packets with dribble condition detected
    1 packets output, 64 bytes, 0 underruns
    O output errors, O collisions, 2 interface resets
    O babbles, O late collision, O deferred
    O lost carrier, O no carrier, O PAUSE output
    O output buffer failures, O output buffers swapped out
```

```
FastEthernet0/8 is administratively down, line protocol is down
(disabled)
  Hardware is Fast Ethernet, address is 0015.fab8.2888 (bia
0015.fab8.2888)
 MTU 1500 bytes, BW 100000 Kbit, DLY 100 usec,
     reliability 255/255, txload 1/255, rxload 1/255
 Encapsulation ARPA, loopback not set
 Keepalive set (10 sec)
 Auto-duplex, Auto-speed, media type is 100BaseTX
 input flow-control is unsupported output flow-control is unsupported
 ARP type: ARPA, ARP Timeout 04:00:00
 Last input never, output 02:06:29, output hang never
 Last clearing of "show interface" counters never
 Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
 Queueing strategy: fifo
 Output queue: 0/40 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
    1 packets input, 64 bytes, 0 no buffer
    Received 0 broadcasts (0 multicast)
    0 runts, 0 giants, 0 throttles
    0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
    0 watchdog, 0 multicast, 0 pause input
    O input packets with dribble condition detected
    1 packets output, 64 bytes, 0 underruns
    O output errors, O collisions, 2 interface resets
    O babbles, O late collision, O deferred
    O lost carrier, O no carrier, O PAUSE output
    O output buffer failures, O output buffers swapped out
FastEthernet0/9 is administratively down, line protocol is down
(disabled)
 Hardware is Fast Ethernet, address is 0015.fab8.2889 (bia
0015.fab8.2889)
 MTU 1500 bytes, BW 100000 Kbit, DLY 100 usec,
    reliability 255/255, txload 1/255, rxload 1/255
 Encapsulation ARPA, loopback not set
 Keepalive set (10 sec)
 Auto-duplex, Auto-speed, media type is 100BaseTX
 input flow-control is unsupported output flow-control is unsupported
 ARP type: ARPA, ARP Timeout 04:00:00
 Last input never, output 02:06:30, output hang never
 Last clearing of "show interface" counters never
 Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
 Queueing strategy: fifo
 Output queue: 0/40 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
    1 packets input, 64 bytes, 0 no buffer
    Received 0 broadcasts (0 multicast)
    0 runts, 0 giants, 0 throttles
    O input errors, O CRC, O frame, O overrun, O ignored
    0 watchdog, 0 multicast, 0 pause input
    O input packets with dribble condition detected
    1 packets output, 64 bytes, 0 underruns
```

```
O output errors, O collisions, 2 interface resets
     O babbles, O late collision, O deferred
     O lost carrier, O no carrier, O PAUSE output
     O output buffer failures, O output buffers swapped out
FastEthernet0/10 is administratively down, line protocol is down
(disabled)
  Hardware is Fast Ethernet, address is 0015.fab8.288a (bia
0015.fab8.288a)
  MTU 1500 bytes, BW 100000 Kbit, DLY 100 usec,
     reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation ARPA, loopback not set
  Keepalive set (10 sec)
  Auto-duplex, Auto-speed, media type is 100BaseTX
  input flow-control is unsupported output flow-control is unsupported
  ARP type: ARPA, ARP Timeout 04:00:00
  Last input never, output 02:06:32, output hang never
  Last clearing of "show interface" counters never
  Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
  Queueing strategy: fifo
  Output queue: 0/40 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
     1 packets input, 64 bytes, 0 no buffer
     Received 0 broadcasts (0 multicast)
     0 runts, 0 giants, 0 throttles
     0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
     0 watchdog, 0 multicast, 0 pause input
     O input packets with dribble condition detected
     1 packets output, 64 bytes, 0 underruns
     O output errors, O collisions, 2 interface resets
     O babbles, O late collision, O deferred
     O lost carrier, O no carrier, O PAUSE output
     O output buffer failures, O output buffers swapped out
FastEthernet0/11 is administratively down, line protocol is down
(disabled)
  Hardware is Fast Ethernet, address is 0015.fab8.288b (bia
0015.fab8.288b)
  MTU 1500 bytes, BW 100000 Kbit, DLY 100 usec,
     reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation ARPA, loopback not set
  Keepalive set (10 sec)
  Auto-duplex, Auto-speed, media type is 100BaseTX
  input flow-control is unsupported output flow-control is unsupported
  ARP type: ARPA, ARP Timeout 04:00:00
  Last input never, output 02:06:33, output hang never
  Last clearing of "show interface" counters never
  Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
  Queueing strategy: fifo
  Output queue: 0/40 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
     1 packets input, 64 bytes, 0 no buffer
     Received 0 broadcasts (0 multicast)
     0 runts, 0 giants, 0 throttles
```

```
O input errors, O CRC, O frame, O overrun, O ignored
    0 watchdog, 0 multicast, 0 pause input
    O input packets with dribble condition detected
    1 packets output, 64 bytes, 0 underruns
    O output errors, O collisions, 2 interface resets
    O babbles, O late collision, O deferred
    O lost carrier, O no carrier, O PAUSE output
     O output buffer failures, O output buffers swapped out
FastEthernet0/12 is administratively down, line protocol is down
(disabled)
  Hardware is Fast Ethernet, address is 0015.fab8.288c (bia
0015.fab8.288c)
 MTU 1500 bytes, BW 100000 Kbit, DLY 100 usec,
     reliability 255/255, txload 1/255, rxload 1/255
 Encapsulation ARPA, loopback not set
 Keepalive set (10 sec)
 Auto-duplex, Auto-speed, media type is 100BaseTX
 input flow-control is unsupported output flow-control is unsupported
 ARP type: ARPA, ARP Timeout 04:00:00
 Last input never, output 02:06:35, output hang never
 Last clearing of "show interface" counters never
 Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
 Queueing strategy: fifo
 Output queue: 0/40 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
    1 packets input, 64 bytes, 0 no buffer
    Received 0 broadcasts (0 multicast)
    0 runts, 0 giants, 0 throttles
    0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
    0 watchdog, 0 multicast, 0 pause input
    O input packets with dribble condition detected
    1 packets output, 64 bytes, 0 underruns
    O output errors, O collisions, 2 interface resets
    O babbles, O late collision, O deferred
    O lost carrier, O no carrier, O PAUSE output
    O output buffer failures, O output buffers swapped out
FastEthernet0/13 is administratively down, line protocol is down
(disabled)
 Hardware is Fast Ethernet, address is 0015.fab8.288d (bia
0015.fab8.288d)
 MTU 1500 bytes, BW 100000 Kbit, DLY 100 usec,
     reliability 255/255, txload 1/255, rxload 1/255
 Encapsulation ARPA, loopback not set
 Keepalive set (10 sec)
 Auto-duplex, Auto-speed, media type is 100BaseTX
 input flow-control is unsupported output flow-control is unsupported
 ARP type: ARPA, ARP Timeout 04:00:00
 Last input never, output 02:06:36, output hang never
 Last clearing of "show interface" counters never
 Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
 Queueing strategy: fifo
 Output queue: 0/40 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
```

```
5 minute output rate 0 bits/sec, 0 packets/sec
    1 packets input, 64 bytes, 0 no buffer
    Received 0 broadcasts (0 multicast)
    0 runts, 0 giants, 0 throttles
    0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
    0 watchdog, 0 multicast, 0 pause input
    O input packets with dribble condition detected
    1 packets output, 64 bytes, 0 underruns
    O output errors, O collisions, 2 interface resets
    O babbles, O late collision, O deferred
    O lost carrier, O no carrier, O PAUSE output
    O output buffer failures, O output buffers swapped out
FastEthernet0/14 is administratively down, line protocol is down
(disabled)
  Hardware is Fast Ethernet, address is 0015.fab8.288e (bia
0015.fab8.288e)
 MTU 1500 bytes, BW 100000 Kbit, DLY 100 usec,
     reliability 255/255, txload 1/255, rxload 1/255
 Encapsulation ARPA, loopback not set
 Keepalive set (10 sec)
 Auto-duplex, Auto-speed, media type is 100BaseTX
 input flow-control is unsupported output flow-control is unsupported
 ARP type: ARPA, ARP Timeout 04:00:00
 Last input never, output 02:06:38, output hang never
 Last clearing of "show interface" counters never
 Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
 Queueing strategy: fifo
 Output queue: 0/40 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
    1 packets input, 64 bytes, 0 no buffer
    Received 0 broadcasts (0 multicast)
    0 runts, 0 giants, 0 throttles
    0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
    0 watchdog, 0 multicast, 0 pause input
    O input packets with dribble condition detected
    1 packets output, 64 bytes, 0 underruns
    O output errors, O collisions, 2 interface resets
    O babbles, O late collision, O deferred
    O lost carrier, O no carrier, O PAUSE output
     O output buffer failures, O output buffers swapped out
FastEthernet0/15 is down, line protocol is down (notconnect)
  Hardware is Fast Ethernet, address is 0015.fab8.288f (bia
0015.fab8.288f)
 MTU 1500 bytes, BW 100000 Kbit, DLY 100 usec,
     reliability 255/255, txload 1/255, rxload 1/255
 Encapsulation ARPA, loopback not set
 Keepalive set (10 sec)
 Auto-duplex, Auto-speed, media type is 100BaseTX
  input flow-control is unsupported output flow-control is unsupported
 ARP type: ARPA, ARP Timeout 04:00:00
 Last input never, output 02:06:40, output hang never
 Last clearing of "show interface" counters never
  Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
```

```
Queueing strategy: fifo
 Output queue: 0/40 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
    1 packets input, 64 bytes, 0 no buffer
    Received 0 broadcasts (0 multicast)
    0 runts, 0 giants, 0 throttles
    0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
    0 watchdog, 0 multicast, 0 pause input
    O input packets with dribble condition detected
    1 packets output, 64 bytes, 0 underruns
    O output errors, O collisions, 2 interface resets
    O babbles, O late collision, O deferred
    O lost carrier, O no carrier, O PAUSE output
    O output buffer failures, O output buffers swapped out
FastEthernet0/16 is up, line protocol is up (connected)
 Hardware is Fast Ethernet, address is 0015.fab8.2890 (bia
0015.fab8.2890)
 MTU 1500 bytes, BW 100000 Kbit, DLY 100 usec,
     reliability 255/255, txload 1/255, rxload 1/255
 Encapsulation ARPA, loopback not set
 Keepalive set (10 sec)
 Full-duplex, 100Mb/s, media type is 100BaseTX
 input flow-control is unsupported output flow-control is unsupported
 ARP type: ARPA, ARP Timeout 04:00:00
 Last input 00:00:00, output 00:00:06, output hang never
 Last clearing of "show interface" counters never
 Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
 Queueing strategy: fifo
 Output queue: 0/40 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
    3321 packets input, 295718 bytes, 0 no buffer
    Received 2551 broadcasts (0 multicast)
    0 runts, 0 giants, 0 throttles
    0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
    0 watchdog, 2548 multicast, 0 pause input
    O input packets with dribble condition detected
    7264 packets output, 586044 bytes, 0 underruns
    0 output errors, 0 collisions, 2 interface resets
    O babbles, O late collision, O deferred
    O lost carrier, O no carrier, O PAUSE output
     O output buffer failures, O output buffers swapped out
FastEthernet0/17 is up, line protocol is up (connected)
 Hardware is Fast Ethernet, address is 0015.fab8.2891 (bia
0015.fab8.2891)
 MTU 1500 bytes, BW 100000 Kbit, DLY 100 usec,
    reliability 255/255, txload 1/255, rxload 1/255
 Encapsulation ARPA, loopback not set
 Keepalive set (10 sec)
 Full-duplex, 100Mb/s, media type is 100BaseTX
 input flow-control is unsupported output flow-control is unsupported
 ARP type: ARPA, ARP Timeout 04:00:00
 Last input 00:00:07, output 00:00:07, output hang never
```

```
Last clearing of "show interface" counters never
  Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
  Queueing strategy: fifo
 Output queue: 0/40 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
    1409 packets input, 138546 bytes, 0 no buffer
    Received 657 broadcasts (0 multicast)
    0 runts, 0 giants, 0 throttles
    0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
    0 watchdog, 656 multicast, 0 pause input
    O input packets with dribble condition detected
    1485 packets output, 150431 bytes, 0 underruns
    O output errors, O collisions, 2 interface resets
    O babbles, O late collision, O deferred
    O lost carrier, O no carrier, O PAUSE output
    O output buffer failures, O output buffers swapped out
FastEthernet0/18 is up, line protocol is up (connected)
  Hardware is Fast Ethernet, address is 0015.fab8.2892 (bia
0015.fab8.2892)
 MTU 1500 bytes, BW 100000 Kbit, DLY 100 usec,
     reliability 255/255, txload 1/255, rxload 1/255
 Encapsulation ARPA, loopback not set
 Keepalive set (10 sec)
 Full-duplex, 100Mb/s, media type is 100BaseTX
 input flow-control is unsupported output flow-control is unsupported
 ARP type: ARPA, ARP Timeout 04:00:00
 Last input 00:00:09, output 00:00:09, output hang never
 Last clearing of "show interface" counters never
 Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
 Queueing strategy: fifo
 Output queue: 0/40 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
    5207 packets input, 412565 bytes, 0 no buffer
    Received 4455 broadcasts (0 multicast)
    0 runts, 0 giants, 0 throttles
    O input errors, O CRC, O frame, O overrun, O ignored
    0 watchdog, 4455 multicast, 0 pause input
    O input packets with dribble condition detected
    1487 packets output, 150575 bytes, 0 underruns
    0 output errors, 0 collisions, 2 interface resets
    O babbles, O late collision, O deferred
     O lost carrier, O no carrier, O PAUSE output
    O output buffer failures, O output buffers swapped out
FastEthernet0/19 is up, line protocol is up (connected)
 Hardware is Fast Ethernet, address is 0015.fab8.2893 (bia
0015.fab8.2893)
 MTU 1500 bytes, BW 100000 Kbit, DLY 100 usec,
     reliability 255/255, txload 1/255, rxload 1/255
 Encapsulation ARPA, loopback not set
 Keepalive set (10 sec)
  Full-duplex, 100Mb/s, media type is 100BaseTX
  input flow-control is unsupported output flow-control is unsupported
```

```
ARP type: ARPA, ARP Timeout 04:00:00
  Last input 00:00:21, output 00:00:00, output hang never
  Last clearing of "show interface" counters never
  Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
  Queueing strategy: fifo
  Output queue: 0/40 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
     7153 packets input, 573169 bytes, 0 no buffer
     Received 6386 broadcasts (0 multicast)
     0 runts, 0 giants, 0 throttles
     0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
     0 watchdog, 6385 multicast, 0 pause input
     O input packets with dribble condition detected
     1537 packets output, 154372 bytes, 0 underruns
     O output errors, O collisions, 2 interface resets
     O babbles, O late collision, O deferred
     O lost carrier, O no carrier, O PAUSE output
     O output buffer failures, O output buffers swapped out
FastEthernet0/20 is up, line protocol is up (connected)
  Hardware is Fast Ethernet, address is 0015.fab8.2894 (bia
0015.fab8.2894)
 MTU 1500 bytes, BW 100000 Kbit, DLY 100 usec,
     reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation ARPA, loopback not set
 Keepalive set (10 sec)
  Full-duplex, 100Mb/s, media type is 100BaseTX
  input flow-control is unsupported output flow-control is unsupported
 ARP type: ARPA, ARP Timeout 04:00:00
  Last input 00:00:23, output 00:00:02, output hang never
  Last clearing of "show interface" counters never
  Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
 Queueing strategy: fifo
  Output queue: 0/40 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
     1405 packets input, 140716 bytes, 0 no buffer
     Received 652 broadcasts (0 multicast)
     0 runts, 0 giants, 0 throttles
     0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
     0 watchdog, 652 multicast, 0 pause input
     O input packets with dribble condition detected
     7198 packets output, 582429 bytes, 0 underruns
     O output errors, O collisions, 2 interface resets
     O babbles, O late collision, O deferred
     O lost carrier, O no carrier, O PAUSE output
     O output buffer failures, O output buffers swapped out
FastEthernet0/21 is up, line protocol is up (connected)
  Hardware is Fast Ethernet, address is 0015.fab8.2895 (bia
0015.fab8.2895)
 MTU 1500 bytes, BW 100000 Kbit, DLY 100 usec,
     reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation ARPA, loopback not set
  Keepalive set (10 sec)
```

```
Full-duplex, 100Mb/s, media type is 100BaseTX
  input flow-control is unsupported output flow-control is unsupported
 ARP type: ARPA, ARP Timeout 04:00:00
 Last input 00:00:00, output 00:00:00, output hang never
 Last clearing of "show interface" counters never
 Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
 Queueing strategy: fifo
 Output queue: 0/40 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
    1404 packets input, 140448 bytes, 0 no buffer
    Received 656 broadcasts (0 multicast)
    0 runts, 0 giants, 0 throttles
    O input errors, O CRC, O frame, O overrun, O ignored
    0 watchdog, 656 multicast, 0 pause input
    O input packets with dribble condition detected
    1538 packets output, 154462 bytes, 0 underruns
    O output errors, O collisions, 2 interface resets
    O babbles, O late collision, O deferred
    O lost carrier, O no carrier, O PAUSE output
     O output buffer failures, O output buffers swapped out
FastEthernet0/22 is down, line protocol is down (notconnect)
  Hardware is Fast Ethernet, address is 0015.fab8.2896 (bia
0015.fab8.2896)
 MTU 1500 bytes, BW 100000 Kbit, DLY 100 usec,
     reliability 255/255, txload 1/255, rxload 1/255
 Encapsulation ARPA, loopback not set
 Keepalive set (10 sec)
 Auto-duplex, Auto-speed, media type is 100BaseTX
  input flow-control is unsupported output flow-control is unsupported
 ARP type: ARPA, ARP Timeout 04:00:00
 Last input never, output 02:06:50, output hang never
 Last clearing of "show interface" counters never
 Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
 Queueing strategy: fifo
 Output queue: 0/40 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
    1 packets input, 64 bytes, 0 no buffer
    Received 0 broadcasts (0 multicast)
    0 runts, 0 giants, 0 throttles
    0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
    0 watchdog, 0 multicast, 0 pause input
    O input packets with dribble condition detected
    1 packets output, 64 bytes, 0 underruns
    O output errors, O collisions, 2 interface resets
    O babbles, O late collision, O deferred
    O lost carrier, O no carrier, O PAUSE output
     O output buffer failures, O output buffers swapped out
FastEthernet0/23 is down, line protocol is down (notconnect)
  Hardware is Fast Ethernet, address is 0015.fab8.2897 (bia
0015.fab8.2897)
 MTU 1500 bytes, BW 100000 Kbit, DLY 100 usec,
    reliability 255/255, txload 1/255, rxload 1/255
```

```
Encapsulation ARPA, loopback not set
 Keepalive set (10 sec)
 Auto-duplex, Auto-speed, media type is 100BaseTX
  input flow-control is unsupported output flow-control is unsupported
 ARP type: ARPA, ARP Timeout 04:00:00
 Last input never, output 02:06:52, output hang never
 Last clearing of "show interface" counters never
 Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
 Queueing strategy: fifo
 Output queue: 0/40 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
    1 packets input, 64 bytes, 0 no buffer
    Received 0 broadcasts (0 multicast)
    0 runts, 0 giants, 0 throttles
    0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
    0 watchdog, 0 multicast, 0 pause input
    O input packets with dribble condition detected
    1 packets output, 64 bytes, 0 underruns
    O output errors, O collisions, 2 interface resets
    O babbles, O late collision, O deferred
    O lost carrier, O no carrier, O PAUSE output
    O output buffer failures, O output buffers swapped out
FastEthernet0/24 is down, line protocol is down (notconnect)
  Hardware is Fast Ethernet, address is 0015.fab8.2898 (bia
0015.fab8.2898)
 MTU 1500 bytes, BW 100000 Kbit, DLY 100 usec,
    reliability 255/255, txload 1/255, rxload 1/255
 Encapsulation ARPA, loopback not set
 Keepalive set (10 sec)
 Auto-duplex, Auto-speed, media type is 100BaseTX
 input flow-control is unsupported output flow-control is unsupported
 ARP type: ARPA, ARP Timeout 04:00:00
 Last input never, output 02:06:54, output hang never
 Last clearing of "show interface" counters never
 Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
 Queueing strategy: fifo
 Output queue: 0/40 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
    1 packets input, 64 bytes, 0 no buffer
    Received 0 broadcasts (0 multicast)
    0 runts, 0 giants, 0 throttles
    0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
    0 watchdog, 0 multicast, 0 pause input
    O input packets with dribble condition detected
    1 packets output, 64 bytes, 0 underruns
    O output errors, O collisions, 2 interface resets
    O babbles, O late collision, O deferred
    O lost carrier, O no carrier, O PAUSE output
     O output buffer failures, O output buffers swapped out
Port-channel1 is up, line protocol is up (connected)
  Hardware is EtherChannel, address is 0015.fab8.2894 (bia
0015.fab8.2894)
```

```
MTU 1500 bytes, BW 300000 Kbit, DLY 1000 usec,
     reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation ARPA, loopback not set
  Full-duplex, 100Mb/s, media type is unknown media type
  input flow-control is off, output flow-control is off
 Members in this channel: Fa0/19 Fa0/20 Fa0/21
 ARP type: ARPA, ARP Timeout 04:00:00
 Last input 00:00:01, output 00:00:01, output hang never
  Last clearing of "show interface" counters never
  Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
  Queueing strategy: fifo
  Output queue: 0/40 (size/max)
  5 minute input rate 1000 bits/sec, 1 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
     9956 packets input, 853991 bytes, 0 no buffer
     Received 7688 broadcasts (0 multicast)
     0 runts, 0 giants, 0 throttles
     0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
     0 watchdog, 7687 multicast, 0 pause input
     O input packets with dribble condition detected
     9855 packets output, 851478 bytes, 0 underruns
     O output errors, O collisions, 1 interface resets
     O babbles, O late collision, O deferred
     O lost carrier, O no carrier, O PAUSE output
     O output buffer failures, O output buffers swapped out
Port-channel2 is up, line protocol is up (connected)
  Hardware is EtherChannel, address is 0015.fab8.2890 (bia
0015.fab8.2890)
 MTU 1500 bytes, BW 300000 Kbit, DLY 1000 usec,
     reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation ARPA, loopback not set
  Full-duplex, 100Mb/s, media type is unknown media type
  input flow-control is off, output flow-control is off
 Members in this channel: Fa0/16 Fa0/17 Fa0/18
 ARP type: ARPA, ARP Timeout 04:00:00
 Last input 00:00:00, output 00:00:01, output hang never
 Last clearing of "show interface" counters never
  Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
 Queueing strategy: fifo
 Output queue: 0/40 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
     9937 packets input, 846897 bytes, 0 no buffer
     Received 7662 broadcasts (0 multicast)
     0 runts, 0 giants, 0 throttles
     0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
     0 watchdog, 7658 multicast, 0 pause input
     O input packets with dribble condition detected
     10003 packets output, 862207 bytes, 0 underruns
     O output errors, O collisions, 1 interface resets
     O babbles, O late collision, O deferred
     O lost carrier, O no carrier, O PAUSE output
     O output buffer failures, O output buffers swapped out
ASW2#
```

ASW2#show interfaces counters errors

Port	Align-Err	FCS-Err	Xmit-Err	Rcv-Err	UnderSize
Fa0/1	0	0	0	0	0
Fa0/2	0	0	0	0	0
Fa0/3	0	0	0	0	0
Fa0/4	0	0	0	0	0
Fa0/5	0	0	0	0	0
Fa0/6	0	0	0	0	0
Fa0/7	0	0	0	0	0
Fa0/8	0	0	0	0	0
Fa0/9	0	0	0	0	0
Fa0/10	0	0	0	0	0

Fa0/11 Fa0/12 Fa0/13 Fa0/14 Fa0/15 Fa0/16 Fa0/17 Fa0/20 Fa0/20 Fa0/21 Fa0/22 Fa0/23 Fa0/24 Po1 Po2)	0 0 0 0 0 0 0 0 0 0 0		0 0 0 0 0 0 0 0 0 0	
Port Giants	Single-Col	Multi-Col	Late-Col	Excess-Col	Carri-Sen	Runts
Fa0/1	0	0	0	0	0	0
Fa0/2	0	0	0	0	0	0
Fa0/3	0	0	0	0	0	0
Fa0/4	0	0	0	0	0	0
0 Fa0/5	0	0	0	0	0	0
0 Fa0/6	0	0	0	0	0	0
0 Fa0/7	0	0	0	0	0	0
0 Fa0/8	0	0	0	0	0	0
0 Fa0/9	0	0	0	0	0	0
0 Fa0/10	0	0	0	0	0	0
0 Fa0/11	0	0	0	0	0	0
0 Fa0/12	0	0	0	0	0	0
0 Fa0/13	0	0	0	0	0	0
0 Fa0/14	0	0	0	0	0	0
0 Fa0/15	0	0	0	0	0	0
0 Fa0/16	0	0	0	0	1	0
0 Fa0/17 0	0	0	0	0	1	0

Fa0/18 0	0	0	0	0	1	0
Fa0/19	0	0	0	0	2	0
Fa0/20	0	0	0	0	2	0
Fa0/21	0	0	0	0	2	0
Fa0/22	0	0	0	0	0	0
Fa0/23	0	0	0	0	1	0
Fa0/24	0	0	0	0	1	0
Po1 0	0	0	0	0	0	0
Po2 0 ASW2#	0	0	0	0	0	0
110						

ASW2#show cdp neighbors

Capability Codes: R - Router, T - Trans Bridge, B - Source Route Bridge S - Switch, H - Host, I - IGMP, r - Repeater, P - Phone

Device ID	Local Intrfce	Holdtme	Capability	Platform Port
ID DSW1	Fas 0/18	141	R S I	Cisco WS-CFas
0/18				
DSW1	Fas 0/17	141	R S I	Cisco WS-CFas
0/17				
DSW1	Fas 0/16	141	R S I	Cisco WS-CFas
0/16				
DSW2	Fas 0/19	130	R S I	Cisco WS-CFas
0/16				
DSW2	Fas 0/21	129	R S I	Cisco WS-CFas
0/18				
DSW2	Fas 0/20	129	R S I	Cisco WS-CFas
0/17				
ASW2#				

Device ID: DSW1 Entry address(es): IP address: 10.2.1.1 Platform: Cisco WS-C3550-24, Capabilities: Router Switch IGMP Interface: FastEthernet0/18, Port ID (outgoing port): FastEthernet0/18 Holdtime : 134 sec Version : Cisco IOS Software, C3550 Software (C3550-IPSERVICESK9-M), Version 12.2(44)SE6, RELEASE SOFTWARE (fc1) Copyright (c) 1986-2009 by Cisco Systems, Inc. Compiled Mon 09-Mar-09 20:28 by gereddy advertisement version: 2 Protocol Hello: OUI=0x00000C, Protocol ID=0x0112; payload len=27, value=00000000FFFFFFF0102250E00000000000000DBDE36E00FF0000 VTP Management Domain: 'netlearning' Native VLAN: 1 Duplex: full Management address(es): IP address: 10.2.1.1 _____ Device ID: DSW1 Entry address(es): IP address: 10.2.1.1 Platform: Cisco WS-C3550-24, Capabilities: Router Switch IGMP Interface: FastEthernet0/17, Port ID (outgoing port): FastEthernet0/17 Holdtime : 133 sec Version : Cisco IOS Software, C3550 Software (C3550-IPSERVICESK9-M), Version 12.2(44)SE6, RELEASE SOFTWARE (fc1) Copyright (c) 1986-2009 by Cisco Systems, Inc. Compiled Mon 09-Mar-09 20:28 by gereddy advertisement version: 2 Protocol Hello: OUI=0x00000C, Protocol ID=0x0112; payload len=27, value=00000000FFFFFFF0102250E00000000000000DBDE36E00FF0000 VTP Management Domain: 'netlearning'

ASW2#show cdp neighbors detail

```
Native VLAN: 1
Duplex: full
Management address(es):
  IP address: 10.2.1.1
_____
Device ID: DSW1
Entry address(es):
  IP address: 10.2.1.1
Platform: Cisco WS-C3550-24, Capabilities: Router Switch IGMP Interface: FastEthernet0/16, Port ID (outgoing port): FastEthernet0/16
Holdtime : 132 sec
Version :
Cisco IOS Software, C3550 Software (C3550-IPSERVICESK9-M), Version
12.2(44)SE6, RELEASE SOFTWARE (fc1)
Copyright (c) 1986-2009 by Cisco Systems, Inc.
Compiled Mon 09-Mar-09 20:28 by gereddy
advertisement version: 2
Protocol Hello: OUI=0x00000C, Protocol ID=0x0112; payload len=27,
value=00000000FFFFFFF0102250E00000000000000DBDE36E00FF0000
VTP Management Domain: 'netlearning'
Native VLAN: 1
Duplex: full
Management address(es):
  IP address: 10.2.1.1
_____
Device ID: DSW2
Entry address(es):
  IP address: 10.2.1.2
Platform: Cisco WS-C3550-24-PWR, Capabilities: Router Switch IGMP
Interface: FastEthernet0/19, Port ID (outgoing port): FastEthernet0/16
Holdtime: 121 sec
Version :
Cisco IOS Software, C3550 Software (C3550-IPSERVICESK9-M), Version
12.2(44)SE6, RELEASE SOFTWARE (fc1)
Copyright (c) 1986-2009 by Cisco Systems, Inc.
Compiled Mon 09-Mar-09 20:28 by gereddy
advertisement version: 2
Protocol Hello: OUI=0x000000C, Protocol ID=0x0112; payload len=27,
value=00000000FFFFFFF0102251800000000000000BFD20BA00FF0000
VTP Management Domain: 'netlearning'
Native VLAN: 1
Duplex: full
Management address(es):
  IP address: 10.2.1.2
______
Device ID: DSW2
```

Entry address(es):

IP address: 10.2.1.2

Platform: Cisco WS-C3550-24-PWR, Capabilities: Router Switch IGMP

Interface: FastEthernet0/21, Port ID (outgoing port): FastEthernet0/18

Holdtime : 119 sec

Version :

Cisco IOS Software, C3550 Software (C3550-IPSERVICESK9-M), Version

12.2(44)SE6, RELEASE SOFTWARE (fc1)

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Compiled Mon 09-Mar-09 20:28 by gereddy

advertisement version: 2

Protocol Hello: OUI=0x00000C, Protocol ID=0x0112; payload len=27,

value=00000000FFFFFFF0102251800000000000000BFD20BA00FF0000

VTP Management Domain: 'netlearning'

Native VLAN: 1 Duplex: full

Management address(es):
IP address: 10.2.1.2

Device ID: DSW2
Entry address(es):

IP address: 10.2.1.2

Platform: Cisco WS-C3550-24-PWR, Capabilities: Router Switch IGMP

Interface: FastEthernet0/20, Port ID (outgoing port): FastEthernet0/17

Holdtime : 119 sec

Version:

Cisco IOS Software, C3550 Software (C3550-IPSERVICESK9-M), Version

12.2(44)SE6, RELEASE SOFTWARE (fc1)

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Compiled Mon 09-Mar-09 20:28 by gereddy

advertisement version: 2

Protocol Hello: OUI=0x00000C, Protocol ID=0x0112; payload len=27,

value=00000000FFFFFFF0102251800000000000000BFD20BA00FF0000

VTP Management Domain: 'netlearning'

Native VLAN: 1 Duplex: full

Management address(es):
IP address: 10.2.1.2

ASW2#show arp
Protocol Address Age (min) Hardware Addr Type Interface
Internet 192.168.1.132 - 0015.fab8.2880 ARPA Vlan200

ASW2#show ip arp
Protocol Address Age (min) Hardware Addr Type Interface
Internet 192.168.1.132 - 0015.fab8.2880 ARPA Vlan200

ASW2#show ip interface Vlan1 is administratively down, line protocol is down Internet protocol processing disabled Vlan200 is up, line protocol is up Internet address is 192.168.1.132/27 Broadcast address is 255.255.255.255 Address determined by non-volatile memory MTU is 1500 bytes Helper address is not set Directed broadcast forwarding is disabled Outgoing access list is not set Inbound access list is not set Proxy ARP is enabled Local Proxy ARP is disabled Security level is default Split horizon is enabled ICMP redirects are always sent ICMP unreachables are always sent ICMP mask replies are never sent IP fast switching is disabled IP fast switching on the same interface is disabled IP Null turbo vector IP multicast fast switching is disabled IP multicast distributed fast switching is disabled IP route-cache flags are None Router Discovery is disabled IP output packet accounting is disabled IP access violation accounting is disabled TCP/IP header compression is disabled RTP/IP header compression is disabled Probe proxy name replies are disabled Policy routing is disabled Network address translation is disabled WCCP Redirect outbound is disabled WCCP Redirect inbound is disabled WCCP Redirect exclude is disabled BGP Policy Mapping is disabled ASW2#

```
ASW2#show tcp statistics
Rcvd: 0 Total, 0 no port
      O checksum error, O bad offset, O too short
      0 packets (0 bytes) in sequence
      0 dup packets (0 bytes)
      0 partially dup packets (0 bytes)
      0 out-of-order packets (0 bytes)
      0 packets (0 bytes) with data after window
      0 packets after close
      0 window probe packets, 0 window update packets
      0 dup ack packets, 0 ack packets with unsend data
      0 ack packets (0 bytes)
Sent: 0 Total, 0 urgent packets
      0 control packets (including 0 retransmitted)
      0 data packets (0 bytes)
      0 data packets (0 bytes) retransmitted
```

- 0 ack only packets (0 delayed)
- 0 window probe packets, 0 window update packets
- ${\tt O}$ Connections initiated, ${\tt O}$ connections accepted, ${\tt O}$ connections established
- O Connections closed (including O dropped, O embryonic dropped)
- O Total rxmt timeout, O connections dropped in rxmt timeout
- $\ensuremath{\text{0}}$ Keepalive timeout, $\ensuremath{\text{0}}$ keepalive probe, $\ensuremath{\text{0}}$ Connections dropped in keepalive

ASW2#show vlan

VLAN Name	Status	Ports
1 default	active	Fa0/22, Fa0/23, Fa0/24
10 VLAN0010 20 VLAN0020	active active	Fa0/1, Fa0/2, Fa0/3,
Fa0/4		Fa0/5, Fa0/6, Fa0/7,
Fa0/8		140/3, 140/3, 140/7,
Fa0/12		Fa0/9, Fa0/10, Fa0/11,
140/12		Fa0/13, Fa0/14, Fa0/15

1002 1003 1004	trcrf- fddine	200 default -default et-default -default			act act	ive /unsup /unsup /unsup /unsup				
		SAID	MTU	Parent	RingNo	BridgeNo	Stp	BrdgMode	Trans1	
Trans	52									
										_
1	enet	100001	1500	_	_	_	_	_	0	0
			1500		_	_	_	_	0	0
		100020	1500		_	_	_	_	0	0
			1500		_	_	_	_	0	0
			1500	_	_	_	_	_	0	0
1003	trcrf	101003	4472	1005	3276	_	_	srb	0	0
1004	fdnet	101004	4472 1500	-	_	_	ieee	_	0	0
1005	trbrf	101005	4472	_	_	15	ibm	_	0	0
		os STEHops	_							
		7								
Remot	te SPA1	N VLANs								
	-									
Prima	ary Sed	condary Typ	pe		Ports					
								 _		

ASW2#show spanning-tree

VLAN0020

Spanning tree enabled protocol ieee

Root ID Priority 4116

Address 000b.fd20.ba00

Cost 9

Port 65 (Port-channel1)

Hello Time 2 sec Max Age 20 sec Forward Delay 15 sec

Bridge ID Priority 32788 (priority 32768 sys-id-ext 20)

Address 0015.fab8.2880

Hello Time 2 sec Max Age 20 sec Forward Delay 15 sec

Aging Time 300

Interface	Role	Sts	Cost	Prio.Nbr	Type
Po1	Root	FWD	9	128.65	P2p
Po2	Desq	FWD	9	128.66	P2p

VLAN0200

Spanning tree enabled protocol ieee

Root ID Priority 4296

Address 000d.bde3.6e00

Cost 9

Port 66 (Port-channel2)

Hello Time 2 sec Max Age 20 sec Forward Delay 15 sec

Bridge ID Priority 32968 (priority 32768 sys-id-ext 200)

Address 0015.fab8.2880

Hello Time 2 sec Max Age 20 sec Forward Delay 15 sec

Aging Time 300

Interface	Role Sts C	Cost	Prio.Nbr	Туре
Po1	Desg FWD 9	9	128.65	P2p
Po2	Root FWD 9	9	128.66	P2p

ASW2#

ASW2#show interfaces status

Fa0/1 10/100BaseTX	disabled	20	auto	auto
Fa0/2 10/100BaseTX	disabled	20	auto	auto
Fa0/3 10/100BaseTX	disabled	20	auto	auto
Fa0/4 10/100BaseTX	disabled	20	auto	auto
Fa0/5 10/100BaseTX	disabled	20	auto	auto
Fa0/6 10/100BaseTX	disabled	20	auto	auto
Fa0/7 10/100BaseTX	disabled	20	auto	auto
Fa0/8 10/100BaseTX	disabled	20	auto	auto
Fa0/9 10/100BaseTX	disabled	20	auto	auto
Fa0/10 10/100BaseTX	disabled	20	auto	auto
Fa0/11 10/100BaseTX Fa0/12	disabled disabled	20	auto	auto
10/100BaseTX Fa0/13	disabled	20	auto auto	auto
10/100BaseTX Fa0/14	disabled	20	auto	auto
10/100BaseTX Fa0/15	notconnect	20	auto	auto
10/100BaseTX Fa0/16	connected	trunk	a-full	a-100
10/100BaseTX Fa0/17	connected	trunk	a-full	a-100
10/100BaseTX Fa0/18	connected	trunk	a-full	a-100
10/100BaseTX Fa0/19	connected	trunk	a-full	a-100
10/100BaseTX Fa0/20 10/100BaseTX	connected	trunk	a-full	a-100
Fa0/21 10/100BaseTX	connected	trunk	a-full	a-100
Fa0/22 10/100BaseTX	notconnect	1	auto	auto
Fa0/23 10/100BaseTX	notconnect	1	auto	auto
Fa0/24 10/100BaseTX	notconnect	1	auto	auto
Po1 Po2 ASW2#	connected connected	trunk trunk	a-full a-full	a-100 a-100

ASW2#show interfaces switchport

Name: Fa0/1

Switchport: Enabled

Administrative Mode: static access

Operational Mode: down

Administrative Trunking Encapsulation: dot1q

Negotiation of Trunking: Off Access Mode VLAN: 20 (VLAN0020)

Trunking Native Mode VLAN: 1 (default)

Voice VLAN: none

Administrative private-vlan host-association: none

Administrative private-vlan mapping: none

Administrative private-vlan trunk native VLAN: none Administrative private-vlan trunk encapsulation: dotlq Administrative private-vlan trunk normal VLANs: none Administrative private-vlan trunk private VLANs: none

Operational private-vlan: none Trunking VLANs Enabled: ALL Pruning VLANs Enabled: 2-1001

Capture Mode Disabled Capture VLANs Allowed: ALL

Protected: false
Appliance trust: none

Name: Fa0/2

Switchport: Enabled

Administrative Mode: static access

Operational Mode: down

Administrative Trunking Encapsulation: dot1q

Negotiation of Trunking: Off Access Mode VLAN: 20 (VLAN0020)

Trunking Native Mode VLAN: 1 (default)

Voice VLAN: none

Administrative private-vlan host-association: none

Administrative private-vlan mapping: none

Administrative private-vlan trunk native VLAN: none Administrative private-vlan trunk encapsulation: dot1q Administrative private-vlan trunk normal VLANs: none Administrative private-vlan trunk private VLANs: none

Operational private-vlan: none Trunking VLANs Enabled: ALL Pruning VLANs Enabled: 2-1001

Capture Mode Disabled

Capture VLANs Allowed: ALL

Protected: false Appliance trust: none

Name: Fa0/3

Switchport: Enabled

Administrative Mode: static access

Operational Mode: down

Administrative Trunking Encapsulation: dot1q

Negotiation of Trunking: Off Access Mode VLAN: 20 (VLAN0020)

Trunking Native Mode VLAN: 1 (default)

Voice VLAN: none

Administrative private-vlan host-association: none

Administrative private-vlan mapping: none

Administrative private-vlan trunk native VLAN: none Administrative private-vlan trunk encapsulation: dotlq Administrative private-vlan trunk normal VLANs: none Administrative private-vlan trunk private VLANs: none

Operational private-vlan: none Trunking VLANs Enabled: ALL Pruning VLANs Enabled: 2-1001

Capture Mode Disabled

Capture VLANs Allowed: ALL

Protected: false

Appliance trust: none

Name: Fa0/4

Switchport: Enabled

Administrative Mode: static access

Operational Mode: down

Administrative Trunking Encapsulation: dot1q

Negotiation of Trunking: Off Access Mode VLAN: 20 (VLAN0020)

Trunking Native Mode VLAN: 1 (default)

Voice VLAN: none

Administrative private-vlan host-association: none

Administrative private-vlan mapping: none

Administrative private-vlan trunk native VLAN: none Administrative private-vlan trunk encapsulation: dotlq Administrative private-vlan trunk normal VLANs: none Administrative private-vlan trunk private VLANs: none

Operational private-vlan: none Trunking VLANs Enabled: ALL Pruning VLANs Enabled: 2-1001

Capture Mode Disabled Capture VLANs Allowed: ALL

Protected: false
Appliance trust: none

Name: Fa0/5

Switchport: Enabled

Administrative Mode: static access

Operational Mode: down

Administrative Trunking Encapsulation: dot1q

Negotiation of Trunking: Off Access Mode VLAN: 20 (VLAN0020)

Trunking Native Mode VLAN: 1 (default)

Voice VLAN: none

Administrative private-vlan host-association: none

Administrative private-vlan mapping: none

Administrative private-vlan trunk native VLAN: none Administrative private-vlan trunk encapsulation: dot1q Administrative private-vlan trunk normal VLANs: none Administrative private-vlan trunk private VLANs: none

Operational private-vlan: none Trunking VLANs Enabled: ALL Pruning VLANs Enabled: 2-1001

Capture Mode Disabled Capture VLANs Allowed: ALL

Protected: false
Appliance trust: none

Name: Fa0/6

Switchport: Enabled

Administrative Mode: static access

Operational Mode: down

Administrative Trunking Encapsulation: dot1q

Negotiation of Trunking: Off Access Mode VLAN: 20 (VLAN0020)

Trunking Native Mode VLAN: 1 (default)

Voice VLAN: none

Administrative private-vlan host-association: none

Administrative private-vlan mapping: none

Administrative private-vlan trunk native VLAN: none Administrative private-vlan trunk encapsulation: dotlq Administrative private-vlan trunk normal VLANs: none Administrative private-vlan trunk private VLANs: none

Operational private-vlan: none Trunking VLANs Enabled: ALL Pruning VLANs Enabled: 2-1001

Capture Mode Disabled Capture VLANs Allowed: ALL

Protected: false Appliance trust: none

Name: Fa0/7

Switchport: Enabled

Administrative Mode: static access

Operational Mode: down

Administrative Trunking Encapsulation: dot1q

Negotiation of Trunking: Off Access Mode VLAN: 20 (VLAN0020)

Trunking Native Mode VLAN: 1 (default)

Voice VLAN: none

Administrative private-vlan host-association: none

Administrative private-vlan mapping: none

Administrative private-vlan trunk native VLAN: none Administrative private-vlan trunk encapsulation: dot1q Administrative private-vlan trunk normal VLANs: none Administrative private-vlan trunk private VLANs: none

Operational private-vlan: none Trunking VLANs Enabled: ALL Pruning VLANs Enabled: 2-1001

Capture Mode Disabled

Capture VLANs Allowed: ALL

Protected: false
Appliance trust: none

Name: Fa0/8

Switchport: Enabled

Administrative Mode: static access

Operational Mode: down

Administrative Trunking Encapsulation: dot1q

Negotiation of Trunking: Off Access Mode VLAN: 20 (VLAN0020)

Trunking Native Mode VLAN: 1 (default)

Voice VLAN: none

Administrative private-vlan host-association: none

Administrative private-vlan mapping: none

Administrative private-vlan trunk native VLAN: none Administrative private-vlan trunk encapsulation: dot1q Administrative private-vlan trunk normal VLANs: none Administrative private-vlan trunk private VLANs: none

Operational private-vlan: none

Trunking VLANs Enabled: ALL Pruning VLANs Enabled: 2-1001

Capture Mode Disabled Capture VLANs Allowed: ALL

Protected: false Appliance trust: none

Name: Fa0/9

Switchport: Enabled

Administrative Mode: static access

Operational Mode: down

Administrative Trunking Encapsulation: dot1q

Negotiation of Trunking: Off Access Mode VLAN: 20 (VLAN0020)

Trunking Native Mode VLAN: 1 (default)

Voice VLAN: none

Administrative private-vlan host-association: none

Administrative private-vlan mapping: none

Administrative private-vlan trunk native VLAN: none Administrative private-vlan trunk encapsulation: dotlq Administrative private-vlan trunk normal VLANs: none Administrative private-vlan trunk private VLANs: none

Operational private-vlan: none Trunking VLANs Enabled: ALL Pruning VLANs Enabled: 2-1001

Capture Mode Disabled Capture VLANs Allowed: ALL

Protected: false
Appliance trust: none

Name: Fa0/10

Switchport: Enabled

Administrative Mode: static access

Operational Mode: down

Administrative Trunking Encapsulation: dot1q

Negotiation of Trunking: Off Access Mode VLAN: 20 (VLAN0020)

Trunking Native Mode VLAN: 1 (default)

Voice VLAN: none

Administrative private-vlan host-association: none

Administrative private-vlan mapping: none

Administrative private-vlan trunk native VLAN: none Administrative private-vlan trunk encapsulation: dot1q Administrative private-vlan trunk normal VLANs: none Administrative private-vlan trunk private VLANs: none

Operational private-vlan: none Trunking VLANs Enabled: ALL Pruning VLANs Enabled: 2-1001

Capture Mode Disabled

Capture VLANs Allowed: ALL

Protected: false

Appliance trust: none

Name: Fa0/11

Switchport: Enabled

Administrative Mode: static access

Operational Mode: down

Administrative Trunking Encapsulation: dot1q

Negotiation of Trunking: Off Access Mode VLAN: 20 (VLAN0020)

Trunking Native Mode VLAN: 1 (default)

Voice VLAN: none

Administrative private-vlan host-association: none

Administrative private-vlan mapping: none

Administrative private-vlan trunk native VLAN: none Administrative private-vlan trunk encapsulation: dot1q Administrative private-vlan trunk normal VLANs: none Administrative private-vlan trunk private VLANs: none

Operational private-vlan: none Trunking VLANs Enabled: ALL Pruning VLANs Enabled: 2-1001

Capture Mode Disabled Capture VLANs Allowed: ALL

Protected: false
Appliance trust: none

Name: Fa0/12

Switchport: Enabled

Administrative Mode: static access

Operational Mode: down

Administrative Trunking Encapsulation: dot1q

Negotiation of Trunking: Off Access Mode VLAN: 20 (VLAN0020)

Trunking Native Mode VLAN: 1 (default)

Voice VLAN: none

Administrative private-vlan host-association: none

Administrative private-vlan mapping: none

Administrative private-vlan trunk native VLAN: none Administrative private-vlan trunk encapsulation: dot1q Administrative private-vlan trunk normal VLANs: none Administrative private-vlan trunk private VLANs: none

Operational private-vlan: none Trunking VLANs Enabled: ALL Pruning VLANs Enabled: 2-1001

Capture Mode Disabled

Capture VLANs Allowed: ALL

Protected: false
Appliance trust: none

Name: Fa0/13

Switchport: Enabled

Administrative Mode: static access

Operational Mode: down

Administrative Trunking Encapsulation: dot1q

Negotiation of Trunking: Off Access Mode VLAN: 20 (VLAN0020)

Trunking Native Mode VLAN: 1 (default)

Voice VLAN: none

Administrative private-vlan host-association: none

Administrative private-vlan mapping: none

Administrative private-vlan trunk native VLAN: none Administrative private-vlan trunk encapsulation: dot1q Administrative private-vlan trunk normal VLANs: none Administrative private-vlan trunk private VLANs: none

Operational private-vlan: none Trunking VLANs Enabled: ALL Pruning VLANs Enabled: 2-1001

Capture Mode Disabled Capture VLANs Allowed: ALL

Protected: false Appliance trust: none

Name: Fa0/14

Switchport: Enabled

Administrative Mode: static access

Operational Mode: down

Administrative Trunking Encapsulation: dot1q

Negotiation of Trunking: Off Access Mode VLAN: 20 (VLAN0020)

Trunking Native Mode VLAN: 1 (default)

Voice VLAN: none

Administrative private-vlan host-association: none

Administrative private-vlan mapping: none

Administrative private-vlan trunk native VLAN: none Administrative private-vlan trunk encapsulation: dot1q Administrative private-vlan trunk normal VLANs: none Administrative private-vlan trunk private VLANs: none

Operational private-vlan: none Trunking VLANs Enabled: ALL Pruning VLANs Enabled: 2-1001

Capture Mode Disabled Capture VLANs Allowed: ALL

Protected: false
Appliance trust: none

Name: Fa0/15

Switchport: Enabled

Administrative Mode: static access

Operational Mode: down

Administrative Trunking Encapsulation: dot1q

Negotiation of Trunking: Off Access Mode VLAN: 20 (VLAN0020)

Trunking Native Mode VLAN: 1 (default)

Voice VLAN: none

Administrative private-vlan host-association: none

Administrative private-vlan mapping: none

Administrative private-vlan trunk native VLAN: none Administrative private-vlan trunk encapsulation: dot1q Administrative private-vlan trunk normal VLANs: none Administrative private-vlan trunk private VLANs: none

Operational private-vlan: none Trunking VLANs Enabled: ALL

Pruning VLANs Enabled: 2-1001

Capture Mode Disabled

Capture VLANs Allowed: ALL

Protected: false Appliance trust: none

Name: Fa0/16

Switchport: Enabled

Administrative Mode: trunk

Operational Mode: trunk (member of bundle Po2) Administrative Trunking Encapsulation: dot1q Operational Trunking Encapsulation: dot1q

Negotiation of Trunking: On Access Mode VLAN: 1 (default)

Trunking Native Mode VLAN: 1 (default)

Voice VLAN: none

Administrative private-vlan host-association: none

Administrative private-vlan mapping: none

Administrative private-vlan trunk native VLAN: none Administrative private-vlan trunk encapsulation: dot1q Administrative private-vlan trunk normal VLANs: none Administrative private-vlan trunk private VLANs: none

Operational private-vlan: none Trunking VLANs Enabled: 20,200 Pruning VLANs Enabled: 2-1001

Capture Mode Disabled Capture VLANs Allowed: ALL

Protected: false Appliance trust: none

Name: Fa0/17

Switchport: Enabled

Administrative Mode: trunk

Operational Mode: trunk (member of bundle Po2) Administrative Trunking Encapsulation: dot1q Operational Trunking Encapsulation: dot1q

Negotiation of Trunking: On Access Mode VLAN: 1 (default)

Trunking Native Mode VLAN: 1 (default)

Voice VLAN: none

Administrative private-vlan host-association: none

Administrative private-vlan mapping: none

Administrative private-vlan trunk native VLAN: none Administrative private-vlan trunk encapsulation: dot1q Administrative private-vlan trunk normal VLANs: none Administrative private-vlan trunk private VLANs: none

Operational private-vlan: none Trunking VLANs Enabled: 20,200 Pruning VLANs Enabled: 2-1001

Capture Mode Disabled

Capture VLANs Allowed: ALL

Protected: false Appliance trust: none Name: Fa0/18

Switchport: Enabled

Administrative Mode: trunk

Operational Mode: trunk (member of bundle Po2) Administrative Trunking Encapsulation: dot1q Operational Trunking Encapsulation: dot1q

Negotiation of Trunking: On Access Mode VLAN: 1 (default)

Trunking Native Mode VLAN: 1 (default)

Voice VLAN: none

Administrative private-vlan host-association: none

Administrative private-vlan mapping: none

Administrative private-vlan trunk native VLAN: none Administrative private-vlan trunk encapsulation: dotlq Administrative private-vlan trunk normal VLANs: none Administrative private-vlan trunk private VLANs: none

Operational private-vlan: none Trunking VLANs Enabled: 20,200 Pruning VLANs Enabled: 2-1001

Capture Mode Disabled

Capture VLANs Allowed: ALL

Protected: false
Appliance trust: none

Name: Fa0/19

Switchport: Enabled

Administrative Mode: trunk

Operational Mode: trunk (member of bundle Pol) Administrative Trunking Encapsulation: dot1q Operational Trunking Encapsulation: dot1q

Negotiation of Trunking: On Access Mode VLAN: 1 (default)

Trunking Native Mode VLAN: 1 (default)

Voice VLAN: none

Administrative private-vlan host-association: none

Administrative private-vlan mapping: none

Administrative private-vlan trunk native VLAN: none Administrative private-vlan trunk encapsulation: dotlq Administrative private-vlan trunk normal VLANs: none Administrative private-vlan trunk private VLANs: none

Operational private-vlan: none Trunking VLANs Enabled: 20,200 Pruning VLANs Enabled: 2-1001

Capture Mode Disabled Capture VLANs Allowed: ALL

Protected: false Appliance trust: none

Name: Fa0/20

Switchport: Enabled

Administrative Mode: trunk

Operational Mode: trunk (member of bundle Po1) Administrative Trunking Encapsulation: dot1q Operational Trunking Encapsulation: dot1q Negotiation of Trunking: On Access Mode VLAN: 1 (default)

Trunking Native Mode VLAN: 1 (default)

Voice VLAN: none

Administrative private-vlan host-association: none

Administrative private-vlan mapping: none

Administrative private-vlan trunk native VLAN: none Administrative private-vlan trunk encapsulation: dotlq Administrative private-vlan trunk normal VLANs: none Administrative private-vlan trunk private VLANs: none

Operational private-vlan: none Trunking VLANs Enabled: 20,200 Pruning VLANs Enabled: 2-1001

Capture Mode Disabled Capture VLANs Allowed: ALL

Protected: false Appliance trust: none

Name: Fa0/21

Switchport: Enabled

Administrative Mode: trunk

Operational Mode: trunk (member of bundle Pol) Administrative Trunking Encapsulation: dot1q Operational Trunking Encapsulation: dot1q

Negotiation of Trunking: On Access Mode VLAN: 1 (default)

Trunking Native Mode VLAN: 1 (default)

Voice VLAN: none

Administrative private-vlan host-association: none

Administrative private-vlan mapping: none

Administrative private-vlan trunk native VLAN: none Administrative private-vlan trunk encapsulation: dot1q Administrative private-vlan trunk normal VLANs: none Administrative private-vlan trunk private VLANs: none

Operational private-vlan: none Trunking VLANs Enabled: 20,200 Pruning VLANs Enabled: 2-1001

Capture Mode Disabled Capture VLANs Allowed: ALL

Protected: false
Appliance trust: none

Name: Fa0/22

Switchport: Enabled

Administrative Mode: trunk Operational Mode: down

Administrative Trunking Encapsulation: dot1q

Negotiation of Trunking: On Access Mode VLAN: 1 (default)

Trunking Native Mode VLAN: 1 (default)

Voice VLAN: none

Administrative private-vlan host-association: none

Administrative private-vlan mapping: none

Administrative private-vlan trunk native VLAN: none

Administrative private-vlan trunk encapsulation: dot1q Administrative private-vlan trunk normal VLANs: none Administrative private-vlan trunk private VLANs: none

Operational private-vlan: none Trunking VLANs Enabled: ALL Pruning VLANs Enabled: 2-1001

Capture Mode Disabled Capture VLANs Allowed: ALL

Protected: false
Appliance trust: none

Name: Fa0/23

Switchport: Enabled

Administrative Mode: trunk Operational Mode: down

Administrative Trunking Encapsulation: dot1q

Negotiation of Trunking: On Access Mode VLAN: 1 (default)

Trunking Native Mode VLAN: 1 (default)

Voice VLAN: none

Administrative private-vlan host-association: none

Administrative private-vlan mapping: none

Administrative private-vlan trunk native VLAN: none Administrative private-vlan trunk encapsulation: dot1q Administrative private-vlan trunk normal VLANs: none Administrative private-vlan trunk private VLANs: none

Operational private-vlan: none Trunking VLANs Enabled: ALL Pruning VLANs Enabled: 2-1001

Capture Mode Disabled
Capture VLANs Allowed: ALL

Protected: false
Appliance trust: none

Name: Fa0/24

Switchport: Enabled

Administrative Mode: trunk Operational Mode: down

Administrative Trunking Encapsulation: dot1q

Negotiation of Trunking: On Access Mode VLAN: 1 (default)

Trunking Native Mode VLAN: 1 (default)

Voice VLAN: none

Administrative private-vlan host-association: none

Administrative private-vlan mapping: none

Administrative private-vlan trunk native VLAN: none Administrative private-vlan trunk encapsulation: dot1q Administrative private-vlan trunk normal VLANs: none Administrative private-vlan trunk private VLANs: none

Operational private-vlan: none Trunking VLANs Enabled: ALL Pruning VLANs Enabled: 2-1001

Capture Mode Disabled Capture VLANs Allowed: ALL

Protected: false
Appliance trust: none

Name: Po1

Switchport: Enabled

Administrative Mode: trunk Operational Mode: trunk

Administrative Trunking Encapsulation: dot1q Operational Trunking Encapsulation: dot1q

Negotiation of Trunking: On Access Mode VLAN: 1 (default)

Trunking Native Mode VLAN: 1 (default)

Voice VLAN: none

Administrative private-vlan host-association: none

Administrative private-vlan mapping: none

Administrative private-vlan trunk native VLAN: none Administrative private-vlan trunk encapsulation: dot1q Administrative private-vlan trunk normal VLANs: none Administrative private-vlan trunk private VLANs: none

Operational private-vlan: none Trunking VLANs Enabled: 20,200 Pruning VLANs Enabled: 2-1001

Protected: false
Appliance trust: none

Name: Po2

Switchport: Enabled

Administrative Mode: trunk Operational Mode: trunk

Administrative Trunking Encapsulation: dot1q Operational Trunking Encapsulation: dot1q

Negotiation of Trunking: On Access Mode VLAN: 1 (default)

Trunking Native Mode VLAN: 1 (default)

Voice VLAN: none

Administrative private-vlan host-association: none

Administrative private-vlan mapping: none

Administrative private-vlan trunk native VLAN: none Administrative private-vlan trunk encapsulation: dot1q Administrative private-vlan trunk normal VLANs: none Administrative private-vlan trunk private VLANs: none

Operational private-vlan: none Trunking VLANs Enabled: 20,200 Pruning VLANs Enabled: 2-1001

Protected: false Appliance trust: none

ASW2#show interfaces trunk

Port Po1 Po2	Mode on on	Encapsulation 802.1q 802.1q	Status trunking trunking	Native vlan 1 1
Port V Po1 Po2	7lans allowed 20,200 20,200	on trunk		
Port Po1 Po2	Vlans allowe 20,200 20,200	ed and active in	management do	omain
Port Po1 Po2 ASW2#	Vlans in spa 20,200 20,200	nning tree forw	arding state a	and not pruned

ASW2#show vtp status

VTP Version : 2
Configuration Revision : 36
Maximum VLANs supported locally : 64
Number of existing VLANs : 8
VTP Operating Mode : Server

VTP Operating Mode : Server

VTP Domain Name : netlearning

VTP Pruning Mode : Disabled

VTP V2 Mode : Enabled

VTP Traps Generation : Disabled

• Ov32 Ov08 Ov

MD5 digest : 0x3A 0xD8 0x7D 0x4B 0xF5 0x78 0x54 0xCE

Configuration last modified by 10.2.1.1 at 3-1-93 00:50:15

Local updater ID is 192.168.1.132 on interface V1200 (lowest numbered

VLAN interface found)

ASW2#show vtp password VTP Password: cisco ASW2#

ASW2#show etherchannel detail Channel-group listing:

Group: 1 -----

Group state = L2

Ports: 3 Maxports = 8

Port-channels: 1 Max Port-channels = 1

Protocol: PAgP

Ports in the group: _____

Port: Fa0/19

Port state = Up Mstr In-Bndl

Channel group = 1 Mode = Desirable-Sl Gcchange = 0 Port-channel = Po1 GC = 0×00010001 Pseudo port-channel =

Po1

Port index = 0Load = 0x00Protocol = PAgP

Flags: S - Device is sending Slow hello. C - Device is in Consistent state.

A - Device is in Auto mode. P - Device learns on physical port. d - PAqP is down. Timers: H - Hello timer is running. Q - Quit timer is running. S - Switching timer is running. I - Interface timer is running. Local information: Hello Partner PAqP Learning Group Port Flags State Timers Interval Count Priority Method Ifindex 128 Fa0/19 SC U6/S7 H 30s 1 Any 27 Partner's information: Partner Partner Partner Partner Group Port Device ID Name Port Age Flags Cap. Fa0/19 DSW2 000b.fd20.ba00 Fa0/16 18s SC 180001 Age of the port in the current state: 0d:02h:06m:57s Port: Fa0/20 Port state = Up Mstr In-Bndl Channel group = 1 Mode = Desirable-Sl Gcchange = 0 Port-channel = Po1 GC = 0×00010001 Pseudo port-channel = Po1 Port index = 0Load = 0x00Protocol = PAqP Flags: S - Device is sending Slow hello. C - Device is in Consistent state. A - Device is in Auto mode. P - Device learns on physical port. d - PAgP is down. Timers: H - Hello timer is running. H - Hello timer is running. Q - Quit timer is running. S - Switching timer is running. I - Interface timer is running. Local information: Hello Partner PAgP Learning Group Port Flags State Timers Interval Count Priority Method Ifindex Any 27 Fa0/20 SC U6/S7 H 30s 1 128

Partner Partner Partner Partner Group

Partner's information:

Port Name Device ID Port Age Flags

Cap.

Fa0/20 DSW2 000b.fd20.ba00 Fa0/17 10s SC

180001

Age of the port in the current state: 0d:02h:06m:58s

Port: Fa0/21 _____

Port state = Up Mstr In-Bndl

Channel group = 1 Mode = Desirable-Sl Gcchange = 0 Port-channel = Pol GC = 0×00010001 Pseudo port-channel =

Po1

Port index = 0Load = 0x00Protocol = PAqP

Flags: S - Device is sending Slow hello. C - Device is in Consistent

state.

A - Device is in Auto mode. P - Device learns on physical

port.

d - PAgP is down.

Timers: H - Hello timer is running. Q - Quit timer is running. S - Switching timer is running. I - Interface timer is

running.

Local information:

Hello Partner PAgP Learning

Group

Port Flags State Timers Interval Count Priority Method

Ifindex

Fa0/21 SC U6/S7 H 30s 1 128 Any 27

Partner's information:

Partner Partner Partner Partner

Group

Port Device ID Port Age Flags Name

Cap.

Fa0/21 DSW2 000b.fd20.ba00 Fa0/18 18s SC

180001

Age of the port in the current state: 0d:02h:07m:00s

Port-channels in the group:

Port-channel: Pol

Age of the Port-channel = 0d:02h:09m:21s

Logical slot/port = 1/0 Number of ports = 3

GC = 0x00010001 HotStandBy port = null

Port state = Port-channel Ag-Inuse

Protocol = PAGP

= PAgP Protocol

Ports in the Port-channel:

Index	Load	Port	EC state	No of bits
0	00	Fa0/19	Desirable-Sl	0
0	00	Fa0/20	Desirable-Sl	0
0	00	Fa0/21	Desirable-Sl	0

Time since last port bundled: 0d:02h:07m:01s Fa0/19

Group: 2 _____

Group state = L2

Ports: 3 Maxports = 8

Port-channels: 1 Max Port-channels = 1

Protocol: PAqP

Ports in the group: _____

Port: Fa0/16

Port state = Up Mstr In-Bndl

Channel group = 2^{-} Mode = Desirable-Sl Gcchange = 0 Port-channel = Po2 GC = 0×00020001 Pseudo port-channel =

Po2

Port index = 0 Load = 0x00 Protocol = PAgP

Flags: S - Device is sending Slow hello. C - Device is in Consistent

state.

A - Device is in Auto mode. P - Device learns on physical

port.

d - PAgP is down.

Timers: H - Hello timer is running. Q - Quit timer is running. S - Switching timer is running. I - Interface timer is

running.

Local information:

				Hello	Partner	PAgP	Learning	
Group Port Ifindex	Flags	State	Timers	Interval	Count	Priority	Method	
Fa0/16	SC	U6/S7	Н	30s	1	128	Any	28

Partner's information:

	Partner	Partner	Partner		Partner
Group					
Port	Name	Device ID	Port	Age	Flags
Cap.					
Fa0/16	DSW1	000d.bde3.6e00	Fa0/16	24s	SAC
E0001					

Age of the port in the current state: 0d:02h:07m:51s

Port: Fa0/17

Port state = Up Mstr In-Bndl

Channel group = 2 Mode = Desirable-Sl Gcchange = 0
Port-channel = Po2 GC = 0x00020001 Pseudo port-channel =

Po2

Load = 0x00 Protocol = PAgP Port index = 0

Flags: S - Device is sending Slow hello. C - Device is in Consistent

state.

A - Device is in Auto mode. P - Device learns on physical

port.

d - PAgP is down.

Timers: H - Hello timer is running. Q - Quit timer is running. S - Switching timer is running. I - Interface timer is

running.

Local information:

Hello Partner PAgP Learning Group Port. Flags State Timers Interval Count Priority Method Ifindex

Fa0/17 SC U6/S7 H 30s 1 128 Any 28

Partner's information:

Partner Partner Partner Partner Group Port Device ID Port Age Flags Name Cap. 000d.bde3.6e00 Fa0/17 24s SAC Fa0/17 DSW1

E0001

Age of the port in the current state: 0d:02h:07m:52s

Port: Fa0/18

Port state = Up Mstr In-Bndl

Channel group = 2 Mode = Desirable-Sl Gcchange = 0 Port-channel = Po2 GC = 0×00020001 Pseudo port-channel =

Po2

Port index = 0Load = 0x00Protocol = PAqP

Flags: S - Device is sending Slow hello. C - Device is in Consistent

A - Device is in Auto mode. P - Device learns on physical

port.

d - PAgP is down.

Timers: H - Hello timer is running. Q - Quit timer is running. S - Switching timer is running. I - Interface timer is

running.

Local information:

Hello Partner PAgP Learning

Group

Port Flags State Timers Interval Count Priority Method

Ifindex

Fa0/18 SC U6/S7 H 30s 1 128 Any 28

Partner's information:

Partner Partner Partner Partner Group Port Device ID Name Port Age Flags Cap.

Fa0/18 DSW1 000d.bde3.6e00 Fa0/18 16s SAC

E0001

Age of the port in the current state: 0d:02h:07m:54s

Port-channels in the group:

Port-channel: Po2

Age of the Port-channel = 0d:02h:09m:25s

Logical slot/port = 1/1 Number of ports = 3 GC = 0×00020001 HotStandBy port = null

Port state = Port-channel Ag-Inuse

= PAqP Protocol

Ports in the Port-channel:

	Load		EC state	No of bits
0	00	· .	Desirable-Sl	0
0	00	Fa0/17	Desirable-Sl	0
0	00	Fa0/18	Desirable-Sl	0

Time since last port bundled: 0d:02h:07m:55s Fa0/18

ASW2#show spanning-tree inconsistentports

Name Interface Inconsistency

Number of inconsistent ports (segments) in the system: 0

ASW2#

ASW2#show spanning-tree summary

Switch is in pvst mode Root bridge for: none

EtherChannel misconfig guard is enabled Extended system ID is enabled Portfast Default is disabled PortFast BPDU Guard Default is disabled Portfast BPDU Filter Default is disabled Loopguard Default is disabled UplinkFast is disabled BackboneFast is disabled Pathcost method used is short

Name	Blocking	Listening	Learning	Forwarding	STP Active
VLAN0020 VLAN0200	0	0	0	2 2	2 2
2 vlans ASW2#	0	0	0	4	4

ASW2#show udld

Interface Fa0/1

Port enable administrative configuration setting: Disabled

Port enable operational state: Disabled Current bidirectional state: Unknown

Interface Fa0/2

Port enable administrative configuration setting: Disabled

Port enable operational state: Disabled Current bidirectional state: Unknown

Interface Fa0/3

Port enable administrative configuration setting: Disabled

Port enable operational state: Disabled Current bidirectional state: Unknown

Interface Fa0/4

Port enable administrative configuration setting: Disabled

Port enable operational state: Disabled Current bidirectional state: Unknown

Interface Fa0/5

Port enable administrative configuration setting: Disabled

Port enable operational state: Disabled Current bidirectional state: Unknown

Interface Fa0/6

Port enable administrative configuration setting: Disabled

Port enable operational state: Disabled Current bidirectional state: Unknown

Interface Fa0/7

Port enable administrative configuration setting: Disabled

Port enable operational state: Disabled Current bidirectional state: Unknown

Interface Fa0/8

Port enable administrative configuration setting: Disabled

Port enable operational state: Disabled Current bidirectional state: Unknown

Interface Fa0/9

Port enable administrative configuration setting: Disabled

Port enable operational state: Disabled Current bidirectional state: Unknown

Interface Fa0/10

Port enable administrative configuration setting: Disabled

Port enable operational state: Disabled Current bidirectional state: Unknown

Interface Fa0/11

Port enable administrative configuration setting: Disabled

Port enable operational state: Disabled Current bidirectional state: Unknown

Interface Fa0/12

Port enable administrative configuration setting: Disabled

Port enable operational state: Disabled Current bidirectional state: Unknown

Interface Fa0/13

Port enable administrative configuration setting: Disabled

Port enable operational state: Disabled Current bidirectional state: Unknown

Interface Fa0/14

Port enable administrative configuration setting: Disabled

Port enable operational state: Disabled Current bidirectional state: Unknown

Interface Fa0/15

Port enable administrative configuration setting: Disabled

Port enable operational state: Disabled Current bidirectional state: Unknown

Interface Fa0/16

Port enable administrative configuration setting: Disabled

Port enable operational state: Disabled Current bidirectional state: Unknown

Interface Fa0/17

Port enable administrative configuration setting: Disabled

Port enable operational state: Disabled Current bidirectional state: Unknown

Interface Fa0/18

Port enable administrative configuration setting: Disabled

Port enable operational state: Disabled Current bidirectional state: Unknown

Interface Fa0/19

Port enable administrative configuration setting: Disabled

Port enable operational state: Disabled Current bidirectional state: Unknown

Interface Fa0/20

Port enable administrative configuration setting: Disabled

Port enable operational state: Disabled Current bidirectional state: Unknown

Interface Fa0/21

Port enable administrative configuration setting: Disabled

Port enable operational state: Disabled Current bidirectional state: Unknown

Interface Fa0/22

Port enable administrative configuration setting: Disabled

Port enable operational state: Disabled Current bidirectional state: Unknown

Interface Fa0/23

Port enable administrative configuration setting: Disabled

Port enable operational state: Disabled Current bidirectional state: Unknown

Interface Fa0/24

Port enable administrative configuration setting: Disabled

Port enable operational state: Disabled Current bidirectional state: Unknown

```
ASW2#show etherchannel summary
Flags: D - down P - in port-channel
I - stand-alone s - suspended
H - Hot-standby (LACP only)
R - Layer3 S - Layer2
u - unsuitable for bundling
U - in use f - failed to allocate aggregator
d - default port

Number of channel-groups in use: 2
Number of aggregators: 2

Group Port-channel Protocol Ports
-----
1 Pol(SU) PAGP Fa0/19(P) Fa0/20(Pd) Fa0/21(P)
2 Po2(SU) PAGP Fa0/16(Pd) Fa0/17(P) Fa0/18(P)
```

ASW2#show etherchannel protocol Channel-group listing:

Group: 1 -----

Protocol: PAgP

Group: 2

Protocol: PAgP

ASW2#show etherchannel port

Channel-group listing:

Group: 1 _____

Ports in the group:

Port: Fa0/19 _____

Port state = Up Mstr In-Bndl

Channel group = 1 Mode = Desirable-Sl Gcchange = 0
Port-channel = Po1 GC = 0x00010001 Pseudo port-channel =

Po1

Port index = 0Load = 0x00Protocol = PAqP

Flags: S - Device is sending Slow hello. C - Device is in Consistent

state.

A - Device is in Auto mode. P - Device learns on physical

port.

d - PAgP is down.

Timers: H - Hello timer is running. Q - Quit timer is running. S - Switching timer is running. I - Interface timer is

running.

Local information:

Hello Partner PAgP Learning Group Port Flags State Timers Interval Count Priority Method Ifindex

Fa0/19 SC U6/S7 H 30s 1 128 Any 27

Partner's information:

Partner Partner Partner Partner Group Port Name Device ID Port Age Flags Cap. 000b.fd20.ba00 Fa0/16 12s SC Fa0/19 DSW2 180001

Age of the port in the current state: 0d:02h:07m:49s

Port: Fa0/20 ______

Port state = Up Mstr In-Bndl

Channel group = 1 Mode = Desirable-Sl Gcchange = 0
Port-channel = Po1 GC = 0x00010001 Pseudo port-channel =

Port index = 0Load = 0x00Protocol = PAqP

Flags: S - Device is sending Slow hello. C - Device is in Consistent

state.

A - Device is in Auto mode. P - Device learns on physical

port.

d - PAgP is down.

Timers: H - Hello timer is running. Q - Quit timer is running. S - Switching timer is running. I - Interface timer is

running.

Local information:

Hello Partner PAgP Learning Group

Port Flags State Timers Interval Count Priority Method

Ifindex

Fa0/20 SC U6/S7 H 30s 1 128 Any 27

Partner's information:

Partner Partner Partner Partner Group Port Name Device ID Port Age Flags Cap. Fa0/20 DSW2 000b.fd20.ba00 Fa0/17 6s SC

180001

Age of the port in the current state: 0d:02h:07m:51s

Port: Fa0/21 _____

Port state = Up Mstr In-Bndl

Channel group = 1 Mode = Desirable-Sl Gcchange = 0
Port-channel = Po1 GC = 0x00010001 Pseudo port-channel =

Po1

Load = 0x00Port index = 0Protocol = PAqP

Flags: S - Device is sending Slow hello. C - Device is in Consistent

state.

A - Device is in Auto mode. P - Device learns on physical

port.

d - PAgP is down.

Timers: H - Hello timer is running. Q - Quit timer is running. S - Switching timer is running. I - Interface timer is

running.

Local information:

Hello Partner PAgP Learning Group Flags State Timers Interval Count Priority Method Port Ifindex SC U6/S7 H 30s 1 128 Fa0/21 Any 27 Partner's information: Partner Partner Partner Partner Group Port Name Device ID Port Age Flags Cap. Fa0/21 DSW2 000b.fd20.ba00 Fa0/18 13s SC 180001 Age of the port in the current state: 0d:02h:07m:52s Group: 2 _____ Ports in the group: _____ Port: Fa0/16 _____ Port state = Up Mstr In-Bndl Channel group = 2 Mode = Desirable-Sl Gcchange = 0
Port-channel = Po2 GC = 0x00020001 Pseudo port-channel = Po2 Port index = 0Load = 0x00Protocol = PAqP Flags: S - Device is sending Slow hello. C - Device is in Consistent state. A - Device is in Auto mode. P - Device learns on physical port. d - PAgP is down. Timers: H - Hello timer is running. Q - Quit timer is running. S - Switching timer is running. I - Interface timer is running. Local information: Hallo Partner PAGP Learning G

				нетто	Partner	PAGP	Learning	
Group								
Port	Flags	State	Timers	Interval	Count	Priority	Method	
Ifindex								
Fa0/16	SC	U6/S7	H	30s	1	128	Any	28

Partner's information:

	Partner	Partner	Partner		Partner
Group					
Port	Name	Device ID	Port	Age	Flags
Cap.					

000d.bde3.6e00 Fa0/16 21s SAC Fa0/16 DSW1

E0001

Age of the port in the current state: 0d:02h:08m:42s

Port: Fa0/17

Port state = Up Mstr In-Bndl

Channel group = 2 Mode = Desirable-Sl Gcchange = 0 GC = 0x00020001 Pseudo port-channel =

Po2

Port index = 0Load = 0x00Protocol = PAqP

Flags: S - Device is sending Slow hello. C - Device is in Consistent

A - Device is in Auto mode. P - Device learns on physical

port.

d - PAgP is down.

Timers: H - Hello timer is running. Q - Quit timer is running. S - Switching timer is running. I - Interface timer is

running.

Local information:

Hello Partner PAgP Learning

Group

Port Flags State Timers Interval Count Priority Method

Ifindex

Fa0/17 SC U6/S7 H 30s 1 128 Any 28

Partner's information:

Partner Partner Partner Partner

Group

Port Device ID Port Age Flags Name

Cap.

Fa0/17 DSW1 000d.bde3.6e00 Fa0/17 19s SAC

E0001

Age of the port in the current state: 0d:02h:08m:43s

Port: Fa0/18

Port state = Up Mstr In-Bndl

Channel group = 2 Mode = Desirable-Sl Gcchange = 0 Port-channel = Po2 GC = 0x00020001 Pseudo port-channel =

Po2

Port index = 0Load = 0x00Protocol = PAqP

Flags: S - Device is sending Slow hello. C - Device is in Consistent

A - Device is in Auto mode. P - Device learns on physical

port.

d - PAgP is down.

Timers: H - Hello timer is running. Q - Quit timer is running. S - Switching timer is running. I - Interface timer is

running.

Local information:

Hello Partner PAgP Learning Group Port Flags State Timers Interval Count Priority Method Ifindex Fa0/18 SC U6/S7 H 30s 1 128 Any 28

Partner's information:

Partner Partner Partner Partner Group Name Port Device ID Port Age Flags Cap. 000d.bde3.6e00 Fa0/18 13s SAC Fa0/18 DSW1 E0001

Age of the port in the current state: 0d:02h:08m:45s

ASW2#show etherchannel load-balance Source MAC address ASW2# ASW2#show etherchannel port-channel

Channel-group listing:

Group: 1 _____

> Port-channels in the group: _____

Port-channel: Pol

Age of the Port-channel = 0d:02h:10m:28s

Logical slot/port = 1/0 Number of ports = 3

GC = 0x00010001 HotStandBy port = null

Port state = Port-channel Ag-Inuse

Protocol = PAgP

Ports in the Port-channel:

Index	Load		EC state	No of bits
0	00	·	Desirable-Sl	0
0	00	Fa0/20	Desirable-Sl	0
0	00	Fa0/21	Desirable-Sl	0

Time since last port bundled: 0d:02h:08m:08s Fa0/19

Group: 2 _____

> Port-channels in the group: _____

Port-channel: Po2

Age of the Port-channel = 0d:02h:10m:28s

Logical slot/port = 1/1 Number of ports = 3
GC = 0x00020001 HotStandBy port = null
Port state = Port-channel Ag-Inuse

Port state Protocol = PAqP

Ports in the Port-channel:

Index	Load		EC state	No of bits
0	00	Fa0/16	+- Desirable-Sl	0
0	00	Fa0/17	Desirable-Sl	0
0	00	Fa0/18	Desirable-Sl	0

Time since last port bundled: 0d:02h:08m:58s Fa0/18

ASW2#show pagp neighbor

Flags: S - Device is sending Slow hello. C - Device is in Consistent state.

 ${\tt A}$ - Device is in Auto mode. ${\tt P}$ - Device learns on physical port.

Channel group 1 neighbors

Partner Partner Partner Partner Group

Port Name Device ID Port Age Flags

Cap.

Fa0/19 180001	DSW2	000b.fd20.ba00	Fa0/16	8s	SC
Fa0/20 180001	DSW2	000b.fd20.ba00	Fa0/17	3s	SC
Fa0/21 180001	DSW2	000b.fd20.ba00	Fa0/18	9s	SC
Channel	group 2 neighbors				
onannoi	Partner	Partner	Partner		Partner
Group					_
Port	Name	Device ID	Port	Age	Flags
	Ivanic			J -	
Cap.			- (1 -	,	
Fa0/16	DSW1	000d.bde3.6e00	Fa0/16	,	SAC
-		000d.bde3.6e00	Fa0/16	14s	SAC
Fa0/16 E0001	DSW1			14s	
Fa0/16 E0001 Fa0/17	DSW1			14s 13s	
Fa0/16 E0001 Fa0/17 E0001	DSW1	000d.bde3.6e00	Fa0/17	14s 13s	SAC

ASW2#show lacp neighbor

ASW2#

ASW2#show port-security
Secure Port MaxSecureAddr CurrentAddr SecurityViolation Security
Action (Count) (Count)

Fa0/1	1	_ (0	0
Shutdown				
Fa0/2	1	_ (0	0
Shutdown			_	
Fa0/3	1	_ (0	0
Shutdown	4		2	^
Fa0/4	1	_ (J	0
Shutdown Fa0/5	1	_ (2	0
Shutdown	اِ	_ (J	U
Fa0/6	1	_ (n	0
Shutdown	_	_	5	O
Fa0/7	1)	0
Shutdown	_			
Fa0/8	1	_ (0	0
Shutdown				
Fa0/9	1	_ (0	0
Shutdown				
Fa0/10	1	_ (0	0
Shutdown				
Fa0/11	1	_ (0	0
Shutdown				
Fa0/12	1	_ (0	0
Shutdown			_	
Fa0/13	1	_ (0	0
Shutdown	1		2	^
Fa0/14	1	_ (J	0
Shutdown Fa0/15	1	_ (1	0
Shutdown	_	_ (J	U
JIIU CUOWII				

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Total Addresses in System (excluding one mac per port) : 0
Max Addresses limit in System (excluding one mac per port) : 1024

ASW2#show port-security address
Secure Mac Address Table

Vlan Mac Address Type Ports Remaining Age (mins)

Total Addresses in System (excluding one mac per port) : 0 Max Addresses limit in System (excluding one mac per port) : 1024