```
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/ct6OebrY.
!
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#
```

```
ASW2#show ip interface brief
Interface               IP-Address      OK? Method Status
Protocol
Vlan1                   unassigned      YES NVRAM  administratively
down down
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
FastEthernet0/6         unassigned      YES unset  administratively
down down
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        unassigned      YES unset  administratively
down down
FastEthernet0/11        unassigned      YES unset  administratively
down down
```

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

```
ASW2#show processes cpu
CPU utilization for five seconds: 1%/0%; one minute: 2%; five minutes: 1%
  PID Runtime(ms)     Invoked      uSecs    5Sec    1Min    5Min TTY Process
    1           0           1          0   0.00%   0.00%   0.00%   0 Chunk
Manager
    2           4        1517          2   0.00%   0.00%   0.00%   0 Load Meter
    3         880         137       6423   0.00%   0.00%   0.00%   0 SpanTree
Helper
    4        2048         767       2670   0.00%   0.01%   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        1896          6   0.00%   0.00%   0.00%   0 HC Counter
Timer
    9          12         136         88   0.00%   0.00%   0.00%   0 ARP Input
   10           0           3          0   0.00%   0.00%   0.00%   0 Net Input
   11           0           1          0   0.00%   0.00%   0.00%   0 Critical
Bkgnd
   12        2556        4228        604   0.08%   0.01%   0.00%   0 Net
Background
   13          16         124        129   0.00%   0.00%   0.00%   0 Logger
   14          76        7574         10   0.00%   0.00%   0.00%   0 TTY
Background
   15          24        7584          3   0.00%   0.00%   0.00%   0 Per-Second
Jobs
   16          24        1518         15   0.00%   0.00%   0.00%   0 Compute
load avg
   17        1068         127       8409   0.00%   0.01%   0.00%   0 Per-minute
Jobs
   18           8          60        133   0.00%   0.00%   0.00%   0 AggMgr
Process
   19           0           2          0   0.00%   0.00%   0.00%   0 Calhoun
Storm Co
   20         732      189418          3   0.08%   0.01%   0.00%   0 Calhoun
LED Proc
   21       60428       15037       4018   0.81%   0.79%   0.77%   0 Calhoun
Statisti
```

22	44	37882	1	0.00%	0.00%	0.00%	0	HMATM Learn proc
23	1156	45	25688	0.00%	0.00%	0.00%	0	CalhounPM
24	320	37888	8	0.00%	0.00%	0.00%	0	Link Status Proc
25	32	37891	0	0.00%	0.00%	0.00%	0	Calhoun PHY Loop
26	0	1	0	0.00%	0.00%	0.00%	0	CalhounInsIpopti
27	0	1	0	0.00%	0.00%	0.00%	0	Calhoun DHCP Sno
28	1260	1821	691	0.00%	0.02%	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	1572	2852	551	0.00%	0.00%	0.00%	0	DTP Protocol
32	0	760	0	0.00%	0.00%	0.00%	0	Ethchnl
33	152	92	1652	0.00%	0.00%	0.00%	0	VLAN Manager
34	4	2	2000	0.00%	0.00%	0.00%	0	PI MATM Aging Pr
35	72	66	1090	0.00%	0.00%	0.00%	0	VMATM Callback
36	10204	15253	668	0.00%	0.02%	0.04%	0	Spanning Tree
37	64	7582	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
44	0	1	0	0.00%	0.00%	0.00%	0	Socket Timers
45	24	56	428	0.00%	0.00%	0.00%	0	L2MM
46	240	636	377	0.00%	0.00%	0.00%	0	MRD
47	52	148	351	0.00%	0.00%	0.00%	0	IGMPSN
48	96	147	653	0.00%	0.00%	0.00%	0	IGMP Snooping Pr
49	268	651	411	0.00%	0.00%	0.00%	0	IGMP Snooping Re
50	816	3195	255	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	0	759	0	0.00%	0.00%	0.00%	0	Cluster RARP

```
  54         544         1715         317  0.16%  0.02%  0.00%     0 Cluster
Base
  55        1372          220        6236  0.49%  1.53%  0.39%     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         492        11487          42  0.00%  0.00%  0.00%     0 PM
Callback
  61          16           93         172  0.00%  0.00%  0.00%     0 VTP Trap
Process
  62           0         2144           0  0.00%  0.00%  0.00%     0 DHCPD
Database
  63          80         7583          10  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        2412         3632         664  0.00%  0.00%  0.00%     0 PAgP
ASW2#
```

```
ASW2#show interfaces
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
     0 packets input, 0 bytes, 0 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
     0 packets output, 0 bytes, 0 underruns
     0 output errors, 3 interface resets
     0 output buffer failures, 0 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 01:05:54, 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 1000 bits/sec, 1 packets/sec
  5 minute output rate 9000 bits/sec, 1 packets/sec
     15355 packets input, 1305670 bytes, 0 no buffer
     Received 5 broadcasts (0 IP multicast)
     0 runts, 0 giants, 0 throttles
     0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
     17726 packets output, 10755054 bytes, 0 underruns
     0 output errors, 2 interface resets
```

```
      0 output buffer failures, 0 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 02:06:33, 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
     0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
     0 watchdog, 0 multicast, 0 pause input
     0 input packets with dribble condition detected
     1 packets output, 64 bytes, 0 underruns
     0 output errors, 0 collisions, 2 interface resets
     0 babbles, 0 late collision, 0 deferred
     0 lost carrier, 0 no carrier, 0 PAUSE output
     0 output buffer failures, 0 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 02:06:35, 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
     0 input packets with dribble condition detected
```

```
     1 packets output, 64 bytes, 0 underruns
     0 output errors, 0 collisions, 2 interface resets
     0 babbles, 0 late collision, 0 deferred
     0 lost carrier, 0 no carrier, 0 PAUSE output
     0 output buffer failures, 0 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 02:06:37, 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
     0 input packets with dribble condition detected
     1 packets output, 64 bytes, 0 underruns
     0 output errors, 0 collisions, 2 interface resets
     0 babbles, 0 late collision, 0 deferred
     0 lost carrier, 0 no carrier, 0 PAUSE output
     0 output buffer failures, 0 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 02:06:38, 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
     0 input packets with dribble condition detected
     1 packets output, 64 bytes, 0 underruns
     0 output errors, 0 collisions, 2 interface resets
     0 babbles, 0 late collision, 0 deferred
     0 lost carrier, 0 no carrier, 0 PAUSE output
     0 output buffer failures, 0 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 02:06:40, 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
     0 input packets with dribble condition detected
     1 packets output, 64 bytes, 0 underruns
     0 output errors, 0 collisions, 2 interface resets
     0 babbles, 0 late collision, 0 deferred
     0 lost carrier, 0 no carrier, 0 PAUSE output
     0 output buffer failures, 0 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 02:06:42, 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
       0 input packets with dribble condition detected
       1 packets output, 64 bytes, 0 underruns
       0 output errors, 0 collisions, 2 interface resets
       0 babbles, 0 late collision, 0 deferred
       0 lost carrier, 0 no carrier, 0 PAUSE output
       0 output buffer failures, 0 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 02:06:43, 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
       0 input packets with dribble condition detected
       1 packets output, 64 bytes, 0 underruns
       0 output errors, 0 collisions, 2 interface resets
       0 babbles, 0 late collision, 0 deferred
       0 lost carrier, 0 no carrier, 0 PAUSE output
       0 output buffer failures, 0 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 02:06:45, 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
      0 input packets with dribble condition detected
      1 packets output, 64 bytes, 0 underruns
      0 output errors, 0 collisions, 2 interface resets
      0 babbles, 0 late collision, 0 deferred
      0 lost carrier, 0 no carrier, 0 PAUSE output
      0 output buffer failures, 0 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 02:06:46, 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
      0 input packets with dribble condition detected
      1 packets output, 64 bytes, 0 underruns
      0 output errors, 0 collisions, 2 interface resets
      0 babbles, 0 late collision, 0 deferred
      0 lost carrier, 0 no carrier, 0 PAUSE output
      0 output buffer failures, 0 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 02:06:48, 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
      0 input packets with dribble condition detected
      1 packets output, 64 bytes, 0 underruns
      0 output errors, 0 collisions, 2 interface resets
      0 babbles, 0 late collision, 0 deferred
      0 lost carrier, 0 no carrier, 0 PAUSE output
      0 output buffer failures, 0 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 02:06:49, 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
      0 input packets with dribble condition detected
      1 packets output, 64 bytes, 0 underruns
      0 output errors, 0 collisions, 2 interface resets
      0 babbles, 0 late collision, 0 deferred
      0 lost carrier, 0 no carrier, 0 PAUSE output
      0 output buffer failures, 0 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 02:06:51, 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
      0 input packets with dribble condition detected
      1 packets output, 64 bytes, 0 underruns
      0 output errors, 0 collisions, 2 interface resets
      0 babbles, 0 late collision, 0 deferred
      0 lost carrier, 0 no carrier, 0 PAUSE output
      0 output buffer failures, 0 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 02:06:52, 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
      0 input packets with dribble condition detected
      1 packets output, 64 bytes, 0 underruns
      0 output errors, 0 collisions, 2 interface resets
      0 babbles, 0 late collision, 0 deferred
      0 lost carrier, 0 no carrier, 0 PAUSE output
      0 output buffer failures, 0 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 02:06:54, 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
     0 input packets with dribble condition detected
     1 packets output, 64 bytes, 0 underruns
     0 output errors, 0 collisions, 2 interface resets
     0 babbles, 0 late collision, 0 deferred
     0 lost carrier, 0 no carrier, 0 PAUSE output
     0 output buffer failures, 0 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 02:06:56, 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
     0 input packets with dribble condition detected
     1 packets output, 64 bytes, 0 underruns
     0 output errors, 0 collisions, 2 interface resets
```

```
        0 babbles, 0 late collision, 0 deferred
        0 lost carrier, 0 no carrier, 0 PAUSE output
        0 output buffer failures, 0 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 00:00:16, 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
     3318 packets input, 300227 bytes, 0 no buffer
     Received 2537 broadcasts (0 multicast)
     0 runts, 0 giants, 0 throttles
     0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
     0 watchdog, 2523 multicast, 0 pause input
     0 input packets with dribble condition detected
     2708 packets output, 255320 bytes, 0 underruns
     0 output errors, 0 collisions, 2 interface resets
     0 babbles, 0 late collision, 0 deferred
     0 lost carrier, 0 no carrier, 0 PAUSE output
     0 output buffer failures, 0 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 00:00:23, output 00:00:03, 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
     1356 packets input, 135114 bytes, 0 no buffer
     Received 656 broadcasts (0 multicast)
     0 runts, 0 giants, 0 throttles
     0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
     0 watchdog, 655 multicast, 0 pause input
     0 input packets with dribble condition detected
```

```
     6835 packets output, 568245 bytes, 0 underruns
     0 output errors, 0 collisions, 2 interface resets
     0 babbles, 0 late collision, 0 deferred
     0 lost carrier, 0 no carrier, 0 PAUSE output
     0 output buffer failures, 0 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 00:00:20, output 00:00:05, 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
     4860 packets input, 387836 bytes, 0 no buffer
     Received 4160 broadcasts (0 multicast)
     0 runts, 0 giants, 0 throttles
     0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
     0 watchdog, 4160 multicast, 0 pause input
     0 input packets with dribble condition detected
     2015 packets output, 201236 bytes, 0 underruns
     0 output errors, 0 collisions, 2 interface resets
     0 babbles, 0 late collision, 0 deferred
     0 lost carrier, 0 no carrier, 0 PAUSE output
     0 output buffer failures, 0 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 00:00:12, 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
     3608 packets input, 325050 bytes, 0 no buffer
     Received 2721 broadcasts (0 multicast)
     0 runts, 0 giants, 0 throttles
     0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
```

```
       0 watchdog, 2720 multicast, 0 pause input
       0 input packets with dribble condition detected
       1540 packets output, 154608 bytes, 0 underruns
       0 output errors, 0 collisions, 2 interface resets
       0 babbles, 0 late collision, 0 deferred
       0 lost carrier, 0 no carrier, 0 PAUSE output
       0 output buffer failures, 0 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 00:00:14, output 00:00:08, 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
     1416 packets input, 141590 bytes, 0 no buffer
     Received 654 broadcasts (0 multicast)
     0 runts, 0 giants, 0 throttles
     0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
     0 watchdog, 654 multicast, 0 pause input
     0 input packets with dribble condition detected
     6980 packets output, 570357 bytes, 0 underruns
     0 output errors, 0 collisions, 2 interface resets
     0 babbles, 0 late collision, 0 deferred
     0 lost carrier, 0 no carrier, 0 PAUSE output
     0 output buffer failures, 0 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 00:00:16, 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
     5443 packets input, 431332 bytes, 0 no buffer
     Received 4694 broadcasts (0 multicast)
```

```
      0 runts, 0 giants, 0 throttles
      0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
      0 watchdog, 4695 multicast, 0 pause input
      0 input packets with dribble condition detected
      1542 packets output, 155051 bytes, 0 underruns
      0 output errors, 0 collisions, 2 interface resets
      0 babbles, 0 late collision, 0 deferred
      0 lost carrier, 0 no carrier, 0 PAUSE output
      0 output buffer failures, 0 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 02:07:06, 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
     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
     0 input packets with dribble condition detected
     1 packets output, 64 bytes, 0 underruns
     0 output errors, 0 collisions, 2 interface resets
     0 babbles, 0 late collision, 0 deferred
     0 lost carrier, 0 no carrier, 0 PAUSE output
     0 output buffer failures, 0 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 02:07:08, 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
    0 input packets with dribble condition detected
    1 packets output, 64 bytes, 0 underruns
    0 output errors, 0 collisions, 2 interface resets
    0 babbles, 0 late collision, 0 deferred
    0 lost carrier, 0 no carrier, 0 PAUSE output
    0 output buffer failures, 0 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 02:07:10, 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
    0 input packets with dribble condition detected
    1 packets output, 64 bytes, 0 underruns
    0 output errors, 0 collisions, 2 interface resets
    0 babbles, 0 late collision, 0 deferred
    0 lost carrier, 0 no carrier, 0 PAUSE output
    0 output buffer failures, 0 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 0 bits/sec, 0 packets/sec
     5 minute output rate 0 bits/sec, 0 packets/sec
         10462 packets input, 897754 bytes, 0 no buffer
         Received 8064 broadcasts (0 multicast)
         0 runts, 0 giants, 0 throttles
         0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
         0 watchdog, 8063 multicast, 0 pause input
         0 input packets with dribble condition detected
         9641 packets output, 840743 bytes, 0 underruns
         0 output errors, 0 collisions, 1 interface resets
         0 babbles, 0 late collision, 0 deferred
         0 lost carrier, 0 no carrier, 0 PAUSE output
         0 output buffer failures, 0 output buffers swapped out
Port-channel2 is up, line protocol is up (connected)
  Hardware is EtherChannel, address is 0015.fab8.2892 (bia
0015.fab8.2892)
  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 00:00:01, 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, 2 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
         9497 packets input, 821591 bytes, 0 no buffer
         Received 7319 broadcasts (0 multicast)
         0 runts, 0 giants, 0 throttles
         0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
         0 watchdog, 7304 multicast, 0 pause input
         0 input packets with dribble condition detected
         9521 packets output, 836592 bytes, 0 underruns
         0 output errors, 0 collisions, 1 interface resets
         0 babbles, 0 late collision, 0 deferred
         0 lost carrier, 0 no carrier, 0 PAUSE output
         0 output buffer failures, 0 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             0          0          0          0          0
Fa0/12             0          0          0          0          0
Fa0/13             0          0          0          0          0
Fa0/14             0          0          0          0          0
Fa0/15             0          0          0          0          0
Fa0/16             0          0          0          0          0
Fa0/17             0          0          0          0          0
Fa0/18             0          0          0          0          0
Fa0/19             0          0          0          0          0
Fa0/20             0          0          0          0          0
Fa0/21             0          0          0          0          0
Fa0/22             0          0          0          0          0
Fa0/23             0          0          0          0          0
Fa0/24             0          0          0          0          0
Po1                0          0          0          0          0
Po2                0          0          0          0          0
```

Port	Single-Col	Multi-Col	Late-Col	Excess-Col	Carri-Sen	Runts
Giants						
Fa0/1	0	0	0	0	0	0
0						
Fa0/2	0	0	0	0	0	0
0						
Fa0/3	0	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	5	0
0						
Fa0/17	0	0	0	0	5	0
0						
Fa0/18	0	0	0	0	5	0
0						
Fa0/19	0	0	0	0	2	0
0						
Fa0/20	0	0	0	0	2	0
0						
Fa0/21	0	0	0	0	2	0
0						
Fa0/22	0	0	0	0	0	0
0						
Fa0/23	0	0	0	0	1	0
0						
Fa0/24	0	0	0	0	1	0
0						
Po1	0	0	0	0	0	0
0						
Po2	0	0	0	0	0	0
0						

Port	Single-Col	Multi-Col	Late-Col	Excess-Col	Carri-Sen	Runts

```
ASW2#



















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          162         R S I      Cisco WS-CFas
0/18
DSW1               Fas 0/16          162         R S I      Cisco WS-CFas
0/16
DSW1               Fas 0/17          162         R S I      Cisco WS-CFas
0/17
DSW2               Fas 0/21          176         R S I      Cisco WS-CFas
0/18
DSW2               Fas 0/19          176         R S I      Cisco WS-CFas
0/16
```

```
DSW2              Fas 0/20           176        R S I    Cisco WS-CFas
0/17
ASW2#
```

```
ASW2#show cdp neighbors detail
-------------------------
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 : 155 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=00000000FFFFFFFF0102250E000000000000000DBDE36E00FF0000
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: FastEthernet0/16,  Port ID (outgoing port): FastEthernet0/16
Holdtime : 155 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=00000000FFFFFFFF0102250E000000000000000DBDE36E00FF0000
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 : 153 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=00000000FFFFFFFF0102250E000000000000000DBDE36E00FF0000
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: FastEthernet0/21,  Port ID (outgoing port): FastEthernet0/18
Holdtime : 167 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=00000000FFFFFFFF010225180000000000000000BFD20BA00FF0000
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: FastEthernet0/19,  Port ID (outgoing port): FastEthernet0/16
Holdtime : 166 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=00000000FFFFFFFF010225180000000000000000BFD20BA00FF0000
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 : 165 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=00000000FFFFFFFF010225180000000000000000BFD20BA00FF0000
VTP Management Domain: 'netlearning'
Native VLAN: 1
Duplex: full
Management address(es):
  IP address: 10.2.1.2

ASW2#
```

```
ASW2#show arp
```

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

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

```
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
      0 checksum error, 0 bad offset, 0 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
0 Connections initiated, 0 connections accepted, 0 connections
established
0 Connections closed (including 0 dropped, 0 embryonic dropped)
0 Total rxmt timeout, 0 connections dropped in rxmt timeout
0 Keepalive timeout, 0 keepalive probe, 0 Connections dropped in
keepalive
ASW2#
```

```
ASW2#show access-lists
```

```
ASW2#
```

```
ASW2#show vlan

VLAN Name                             Status    Ports
---- -------------------------------- --------- -------------------------
------
1    default                          active    Fa0/22, Fa0/23, Fa0/24
10   VLAN0010                         active
20   VLAN0020                         active    Fa0/1, Fa0/2, Fa0/3,
Fa0/4
                                                Fa0/5, Fa0/6, Fa0/7,
Fa0/8
                                                Fa0/9, Fa0/10, Fa0/11,
Fa0/12
                                                Fa0/13, Fa0/14, Fa0/15
200  VLAN0200                         active
1002 fddi-default                     act/unsup
1003 trcrf-default                    act/unsup
```

```
1004 fddinet-default                    act/unsup
1005 trbrf-default                      act/unsup

VLAN Type  SAID       MTU   Parent RingNo BridgeNo Stp  BrdgMode Trans1
Trans2
---- ----- ---------- ----- ------ ------ -------- ---- -------- ------ -
-----
1    enet  100001     1500  -      -      -        -    -        0      0
10   enet  100010     1500  -      -      -        -    -        0      0
20   enet  100020     1500  -      -      -        -    -        0      0
200  enet  100200     1500  -      -      -        -    -        0      0
1002 fddi  101002     1500  -      -      -        -    -        0      0
1003 trcrf 101003     4472  1005   3276   -        -    srb      0      0
1004 fdnet 101004     1500  -      -      -        ieee -        0      0
1005 trbrf 101005     4472  -      -      15       ibm  -        0      0


VLAN AREHops STEHops Backup CRF
---- ------- ------- ----------
1003 7       7       off

Remote SPAN VLANs
-------------------------------------------------------------------------
-----


Primary Secondary Type             Ports
------- --------- ---------------- ------------------------------------
-----

ASW2#
```

```
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              Desg 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 Cost      Prio.Nbr Type
---------------- ---- --- --------- -------- ----------------------------
----
Po1              Desg FWD 9         128.65   P2p
Po2              Root FWD 9         128.66   P2p
```

```
ASW2#
```

```
ASW2#show interfaces status

Port         Name                  Status       Vlan      Duplex  Speed Type
Fa0/1                              disabled     20          auto    auto
10/100BaseTX
Fa0/2                              disabled     20          auto    auto
10/100BaseTX
Fa0/3                              disabled     20          auto    auto
10/100BaseTX
Fa0/4                              disabled     20          auto    auto
10/100BaseTX
Fa0/5                              disabled     20          auto    auto
10/100BaseTX
Fa0/6                              disabled     20          auto    auto
10/100BaseTX
Fa0/7                              disabled     20          auto    auto
10/100BaseTX
```

```
Fa0/8                            disabled    20          auto   auto
10/100BaseTX
Fa0/9                            disabled    20          auto   auto
10/100BaseTX
Fa0/10                           disabled    20          auto   auto
10/100BaseTX
Fa0/11                           disabled    20          auto   auto
10/100BaseTX
Fa0/12                           disabled    20          auto   auto
10/100BaseTX
Fa0/13                           disabled    20          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                           connected   trunk     a-full  a-100
10/100BaseTX
Fa0/21                           connected   trunk     a-full  a-100
10/100BaseTX
Fa0/22                           notconnect  1           auto   auto
10/100BaseTX
Fa0/23                           notconnect  1           auto   auto
10/100BaseTX
Fa0/24                           notconnect  1           auto   auto
10/100BaseTX
Po1                              connected   trunk     a-full  a-100
Po2                              connected   trunk     a-full  a-100
ASW2#
```

```
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: 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: Fa0/2
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: 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: Fa0/4
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: 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: Fa0/5
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: 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: Fa0/7
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: 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: Fa0/10
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: 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: Fa0/19
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: 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: Fa0/20
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: 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: Fa0/21
```

```
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: 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#
```

```
ASW2#show interfaces trunk

Port          Mode            Encapsulation  Status        Native vlan
Po1           on              802.1q         trunking      1
Po2           on              802.1q         trunking      1

Port          Vlans allowed on trunk
Po1           20,200
Po2           20,200

Port          Vlans allowed and active in management domain
Po1           20,200
Po2           20,200

Port          Vlans in spanning tree forwarding state and not pruned
Po1           20,200
Po2           20,200
ASW2#
```

```
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 Domain Name               : netlearning
VTP Pruning Mode              : Disabled
VTP V2 Mode                   : Enabled
VTP Traps Generation          : Disabled
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 Vl200 (lowest numbered
VLAN interface found)
ASW2#
```

```
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   = 0x00010001     Pseudo port-channel =
Po1
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        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.
Fa0/19     DSW2                     000b.fd20.ba00    Fa0/16      6s SC
180001

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

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 =
Po1
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        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    25s  SC
180001

Age of the port in the current state: 0d:02h:07m:08s

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
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        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        Name                 Device ID          Port      Age  Flags
Cap.
```

```
Fa0/21     DSW2                      000b.fd20.ba00   Fa0/18       5s SC
180001


Age of the port in the current state: 0d:02h:07m:10s

                 Port-channels in the group:
                 ---------------------------


Port-channel: Po1
------------

Age of the Port-channel   = 0d:02h:09m:31s
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   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:11s     Fa0/21


Group: 2
----------
Group state = L2
Ports: 3   Maxports = 8
Port-channels: 1 Max Port-channels = 1
Protocol:   PAgP
              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    = 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          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.
Fa0/16   DSW1                    000d.bde3.6e00   Fa0/16    11s SAC
E0001

Age of the port in the current state: 0d:01h:09m:26s

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
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          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        Name                    Device ID          Port      Age  Flags
Cap.
Fa0/17   DSW1                    000d.bde3.6e00   Fa0/17    21s SAC
E0001

Age of the port in the current state: 0d:01h:09m:28s

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     = 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       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       Name                    Device ID         Port       Age  Flags
Cap.
Fa0/18     DSW1                    000d.bde3.6e00    Fa0/18      9s  SAC
E0001

Age of the port in the current state: 0d:01h:09m:29s

            Port-channels in the group:
            --------------------------

Port-channel: Po2
------------

Age of the Port-channel   = 0d:02h:09m:36s
Logical slot/port   = 1/1          Number of ports = 3
GC                  = 0x00020001      HotStandBy port = null
Port state          = Port-channel Ag-Inuse
Protocol            =   PAgP

Ports in the Port-channel:

Index  Load  Port   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:01h:09m:30s    Fa0/18
Time since last port Un-bundled: 0d:01h:11m:42s    Fa0/18

ASW2#
```

```
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                      0         0        0          2          2
VLAN0200                      0         0        0          2          2
---------------------- -------- --------- -------- ---------- ----------
2 vlans                       0         0        0          4          4
ASW2#
```

```
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#
```

```
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      Po1(SU)       PAgP      Fa0/19(P)   Fa0/20(Pd)   Fa0/21(P)
2      Po2(SU)       PAgP      Fa0/16(P)   Fa0/17(Pd)   Fa0/18(P)

ASW2#
```

```
ASW2#show etherchannel protocol
                Channel-group listing:
                ----------------------

Group: 1
----------
Protocol:  PAgP

Group: 2
----------
Protocol:  PAgP

ASW2#
```

```
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    = 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        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.
Fa0/19     DSW2                     000b.fd20.ba00   Fa0/16       5s SC
180001

Age of the port in the current state: 0d:02h:08m:00s

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 =
Po1
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        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      21s  SC
180001


Age of the port in the current state: 0d:02h:08m:01s


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
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        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      Name                  Device ID       Port        Age  Flags
Cap.
Fa0/21    DSW2                  000b.fd20.ba00  Fa0/18      2s   SC
180001
```

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


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    = 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        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.
Fa0/16      DSW1                    000d.bde3.6e00      Fa0/16         9s SAC
E0001

Age of the port in the current state: 0d:01h:10m:18s

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
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        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        Name                    Device ID        Port       Age Flags
Cap.
Fa0/17      DSW1                    000d.bde3.6e00   Fa0/17     14s SAC
E0001

Age of the port in the current state: 0d:01h:10m:20s

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    = 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        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        Name                    Device ID            Port        Age  Flags
Cap.
Fa0/18      DSW1                    000d.bde3.6e00       Fa0/18        2s  SAC
E0001

Age of the port in the current state: 0d:01h:10m:21s


ASW2#
```

```
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: Po1
------------

Age of the Port-channel   = 0d:02h:10m:39s
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   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:08m:20s    Fa0/21


Group: 2
----------
                  Port-channels in the group:
                  ---------------------------


Port-channel: Po2
------------

Age of the Port-channel   = 0d:02h:10m:40s
Logical slot/port   = 1/1              Number of ports = 3
GC                  = 0x00020001       HotStandBy port = null
Port state          = Port-channel Ag-Inuse
Protocol            =    PAgP

Ports in the Port-channel:

Index   Load   Port     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:01h:10m:34s    Fa0/18
Time since last port Un-bundled: 0d:01h:12m:47s    Fa0/18


ASW2#
```

```
ASW2#show pagp neighbor
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.

Channel group 1 neighbors
          Partner                Partner           Partner          Partner
Group
Port      Name                   Device ID         Port      Age  Flags
Cap.
Fa0/19    DSW2                   000b.fd20.ba00    Fa0/16     3s  SC
180001
Fa0/20    DSW2                   000b.fd20.ba00    Fa0/17    21s  SC
180001
Fa0/21    DSW2                   000b.fd20.ba00    Fa0/18     1s  SC
180001

Channel group 2 neighbors
          Partner                Partner           Partner          Partner
Group
Port      Name                   Device ID         Port      Age  Flags
Cap.
Fa0/16    DSW1                   000d.bde3.6e00    Fa0/16     3s  SAC
E0001
Fa0/17    DSW1                   000d.bde3.6e00    Fa0/17    10s  SAC
E0001
Fa0/18    DSW1                   000d.bde3.6e00    Fa0/18    24s  SAC
E0001
ASW2#
```

```
ASW2#show lacp neighbor

ASW2#
```

```
ASW2#show port-security
Secure Port  MaxSecureAddr  CurrentAddr  SecurityViolation  Security
Action
                 (Count)       (Count)        (Count)
-----------------------------------------------------------------------
--
      Fa0/1           1             0              0
Shutdown
      Fa0/2           1             0              0
Shutdown
      Fa0/3           1             0              0
Shutdown
      Fa0/4           1             0              0
Shutdown
      Fa0/5           1             0              0
Shutdown
      Fa0/6           1             0              0
Shutdown
      Fa0/7           1             0              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
     Fa0/14           1             0              0
Shutdown
     Fa0/15           1             0              0
Shutdown
-----------------------------------------------------------------------
--
Total Addresses in System (excluding one mac per port)     : 0
Max Addresses limit in System (excluding one mac per port) : 1024

ASW2#
```

```
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

ASW2#
```