```
DSW2#
DSW2#show running-config
Building configuration...

Current configuration : 5899 bytes
!
version 12.2
no service pad
service timestamps debug uptime
service timestamps log uptime
no service password-encryption
!
hostname DSW2
!
!
no aaa new-model
ipv6 unicast-routing
ip subnet-zero
ip routing
!
ip multicast-routing
vtp domain netlearning
vtp mode transparent
!
!
crypto pki trustpoint TP-self-signed-4246780416
 enrollment selfsigned
 subject-name cn=IOS-Self-Signed-Certificate-4246780416
 revocation-check none
 rsakeypair TP-self-signed-4246780416
!
!
crypto pki certificate chain TP-self-signed-4246780416
 certificate self-signed 01
  3082023D 308201A6 A0030201 02020101 300D0609 2A864886 F70D0101 04050030
  31312F30 2D060355 04031326 494F532D 53656C66 2D536967 6E65642D 43657274
  69666963 6174652D 34323436 37383034 3136301E 170D3933 30333031 30303031
  30345A17 0D323030 31303130 30303030 305A3031 312F302D 06035504 03132649
  4F532D53 656C662D 5369676E 65642D43 65727469 66696361 74652D34 32343637
  38303431 3630819F 300D0609 2A864886 F70D0101 01050003 818D0030 81890281
  8100D699 D2A8BD0D A26CE645 B2CE1EC4 EF83204E CBA4D34A B03BC30C 7BF013B1
  5BDEC621 F3CE12CC BC929D9C 463A59DC D49CEF76 3D5193FD 7992F7FF 660F179F
  54CA6370 902081BB ABB71246 5DC79E39 D241B749 11CB4812 07CF1238 A25C59F6
  740464A7 6B3EAE02 6B6B0C13 9B534C70 85BD199E E52D4FB2 AB4C4B5F 678ECD24
  17B30203 010001A3 65306330 0F060355 1D130101 FF040530 030101FF 30100603
  551D1104 09300782 05445357 322E301F 0603551D 23041830 168014A7 8C27C43F
  00BEB401 3F63B68A 9CD582EF D7B15430 1D060355 1D0E0416 0414A78C 27C43F00
  BEB4013F 63B68A9C D582EFD7 B154300D 06092A86 4886F70D 01010405 00038181
  00B9A060 055A57EE 0EE7C450 128718FA 07A5DCE4 8EABE33F 56BA385F 8F9477E8
  191A361C EBEFB296 6A2E4637 11BB4D89 CDFA4DDB 7229B8F1 856DCE18 DF11CA57
  180C3686 28E9079C F004E71B A9F11040 7C952427 573ED2F5 AB38C4D9 768156A4
  C597E2E3 B9D4C611 F902BEA8 A18209DD 239160AE E6AC24DE 41AD980B 261778F5
AA
  quit
```

```
!
!
!
spanning-tree mode pvst
spanning-tree extend system-id
spanning-tree vlan 10,200 priority 8192
spanning-tree vlan 20 priority 4096
!
vlan internal allocation policy ascending
!
vlan 10,20,200
!
!
!
!
!
!
interface Tunnel67
 no ip address
 ipv6 address 2026::3:2/122
 ipv6 enable
 ipv6 rip RIPNG enable
 tunnel source 10.2.4.14
 tunnel destination 10.2.4.13
!
interface Port-channel12
 no switchport
 ip address 10.2.4.14 255.255.255.252
 ip pim sparse-dense-mode
!
interface Port-channel23
 switchport trunk encapsulation dot1q
 switchport trunk allowed vlan 10,200
 switchport mode trunk
!
interface Port-channel24
 switchport trunk encapsulation dot1q
 switchport trunk allowed vlan 20,200
 switchport mode trunk
!
interface FastEthernet0/1
 no switchport
 ip address 10.1.4.10 255.255.255.252
 ip pim sparse-dense-mode
!
interface FastEthernet0/2
 switchport mode access
 shutdown
!
interface FastEthernet0/3
 switchport mode access
!
interface FastEthernet0/4
 switchport mode access
```

```
 shutdown
!
interface FastEthernet0/5
 switchport mode access
 shutdown
!
interface FastEthernet0/6
 switchport mode access
 shutdown
!
interface FastEthernet0/7
 switchport mode access
 shutdown
!
interface FastEthernet0/8
 switchport mode access
 shutdown
!
interface FastEthernet0/9
 switchport mode access
 shutdown
!
interface FastEthernet0/10
 switchport mode access
 shutdown
!
interface FastEthernet0/11
 switchport mode access
 shutdown
!
interface FastEthernet0/12
 switchport mode access
 shutdown
!
interface FastEthernet0/13
 switchport mode access
 shutdown
!
interface FastEthernet0/14
 switchport mode access
 shutdown
!
interface FastEthernet0/15
 switchport mode access
!
interface FastEthernet0/16
 switchport trunk encapsulation dot1q
 switchport trunk allowed vlan 20,200
 switchport mode trunk
 channel-group 24 mode desirable
!
interface FastEthernet0/17
 switchport trunk encapsulation dot1q
 switchport trunk allowed vlan 20,200
```

```
 switchport mode trunk
 channel-group 24 mode desirable
!
interface FastEthernet0/18
 switchport trunk encapsulation dot1q
 switchport trunk allowed vlan 20,200
 switchport mode trunk
 channel-group 24 mode desirable
!
interface FastEthernet0/19
 switchport trunk encapsulation dot1q
 switchport trunk allowed vlan 10,200
 switchport mode trunk
 channel-group 23 mode active
!
interface FastEthernet0/20
 switchport trunk encapsulation dot1q
 switchport trunk allowed vlan 10,200
 switchport mode trunk
 channel-group 23 mode active
!
interface FastEthernet0/21
 switchport trunk encapsulation dot1q
 switchport trunk allowed vlan 10,200
 switchport mode trunk
 channel-group 23 mode active
!
interface FastEthernet0/22
 no switchport
 no ip address
 channel-group 12 mode on
!
interface FastEthernet0/23
 no switchport
 no ip address
 channel-group 12 mode on
!
interface FastEthernet0/24
 no switchport
 no ip address
 channel-group 12 mode on
!
interface GigabitEthernet0/1
 switchport mode dynamic desirable
 shutdown
!
interface GigabitEthernet0/2
 switchport mode dynamic desirable
 shutdown
!
interface Vlan1
 no ip address
 shutdown
!
```

```
interface Vlan10
 ip address 10.2.1.2 255.255.255.0
 ip helper-address 10.1.4.9
 ip pim sparse-dense-mode
 standby 10 ip 10.2.1.254
 standby 10 priority 20
 standby 10 preempt
!
interface Vlan20
 ip address 10.2.2.1 255.255.255.0
 ip pim sparse-dense-mode
!
interface Vlan200
 ip address 192.168.1.130 255.255.255.224
!
!
router eigrp 10
 no auto-summary
 network 10.1.4.10 0.0.0.0
 network 10.2.1.2 0.0.0.0
 network 10.2.2.1 0.0.0.0
 network 10.2.4.14 0.0.0.0
!
ip classless
ip http server
ip http secure-server
!
!
ip access-list standard DENY_10
 deny   10.0.0.0 0.255.255.255
 permit any
ip access-list standard DENY_ALL
 deny   any
ip access-list standard PERMIT_10
 permit 10.0.0.0 0.255.255.255
ip access-list standard PERMIT_ALL
 permit any
!
ipv6 router rip RIPNG
!
!
control-plane
!
!
line con 0
 exec-timeout 0 0
 logging synchronous
line vty 0 4
 login
line vty 5 15
 login
!
end
```

```
DSW2#




















DSW2#ping 209.65.200.241
```

```
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 209.65.200.241, timeout is 2 seconds:
U.U.U
Success rate is 0 percent (0/5)
DSW2#
```

```
DSW2#ping 209.65.200.226

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 209.65.200.226, timeout is 2 seconds:
U.U.U
Success rate is 0 percent (0/5)
DSW2#
```

```
DSW2#ping 209.65.200.225

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 209.65.200.225, timeout is 2 seconds:
U.U.U
Success rate is 0 percent (0/5)
DSW2#
```

```
DSW2#ping 10.1.1.1

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 10.1.1.1, timeout is 2 seconds:
.....
Success rate is 0 percent (0/5)
DSW2#
```

```
DSW2#ping 10.1.1.2

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 10.1.1.2, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 128/131/132
ms
DSW2#
```

```
DSW2#ping 10.1.1.5

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 10.1.1.5, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 128/130/132
ms
DSW2#
```

```
DSW2#ping 10.1.1.6

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 10.1.1.6, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 64/65/68 ms
DSW2#
```

```
DSW2#ping 10.1.1.9

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 10.1.1.9, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 64/66/68 ms
DSW2#
```

```
DSW2#ping 10.1.1.10

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 10.1.1.10, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 1/2/4 ms
DSW2#
```

```
DSW2#ping 10.1.4.10

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 10.1.4.10, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 1/1/1 ms
DSW2#
```

```
DSW2#ping 10.1.4.9

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 10.1.4.9, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 1/2/4 ms
DSW2#
```

```
DSW2#ping 10.1.4.6

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 10.1.4.6, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 4/4/4 ms
DSW2#
```

```
DSW2#ping 10.1.4.5

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 10.1.4.5, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 1/2/4 ms
```

```
DSW2#
```

```
DSW2#ping 10.2.1.1
```

```
Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 10.2.1.1, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 1/4/8 ms
DSW2#
```

```
DSW2#ping 10.2.2.2

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 10.2.2.2, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 1/3/4 ms
DSW2#
```

```
DSW2#ping 10.2.1.254

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 10.2.1.254, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 4/4/4 ms
DSW2#
```

```
DSW2#ping 10.2.4.14

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 10.2.4.14, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 1/1/4 ms
DSW2#
```

```
DSW2#ping 10.2.4.13

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 10.2.4.13, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 4/4/4 ms
DSW2#
```

```
DSW2#ping 10.2.1.2

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 10.2.1.2, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 1/1/4 ms
DSW2#
```

```
DSW2#ping 10.2.2.1

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 10.2.2.1, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 1/1/4 ms
DSW2#
```

```
DSW2#ping 10.2.1.4

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 10.2.1.4, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 1/3/8 ms
DSW2#
```

```
DSW2#show ip interface brief
Interface              IP-Address      OK? Method Status
Protocol
Vlan1                  unassigned      YES NVRAM  administratively down
down
Vlan10                 10.2.1.2        YES NVRAM  up
up
Vlan20                 10.2.2.1        YES NVRAM  up
up
Vlan200                192.168.1.130   YES NVRAM  up
up
FastEthernet0/1        10.1.4.10       YES NVRAM  up
up
FastEthernet0/2        unassigned      YES unset  administratively down
down
FastEthernet0/3        unassigned      YES unset  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 NVRAM  up
up
FastEthernet0/23        unassigned      YES NVRAM  up
up
FastEthernet0/24        unassigned      YES NVRAM  up
up
GigabitEthernet0/1      unassigned      YES unset  administratively down
down
GigabitEthernet0/2      unassigned      YES unset  administratively down
down
Port-channel12          10.2.4.14       YES NVRAM  up
up
Port-channel23          unassigned      YES unset  up
up
Port-channel24          unassigned      YES unset  up
up
Tunnel67                unassigned      YES NVRAM  up
up
DSW2#
```

```
DSW2#show ip route
Codes: C - connected, S - static, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2
       i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS
level-2
```

```
          ia - IS-IS inter area, * - candidate default, U - per-user static
route
          o - ODR, P - periodic downloaded static route

Gateway of last resort is 10.1.4.9 to network 0.0.0.0

      10.0.0.0/8 is variably subnetted, 6 subnets, 2 masks
C        10.2.4.12/30 is directly connected, Port-channel12
D EX     10.1.1.8/30 [170/261120] via 10.1.4.9, 01:01:10, FastEthernet0/1
C        10.1.4.8/30 is directly connected, FastEthernet0/1
C        10.2.1.0/24 is directly connected, Vlan10
C        10.2.2.0/24 is directly connected, Vlan20
D        10.1.4.4/30 [90/28416] via 10.2.2.2, 01:05:50, Vlan20
                     [90/28416] via 10.2.1.1, 01:05:50, Vlan10
      192.168.1.0/27 is subnetted, 1 subnets
C        192.168.1.128 is directly connected, Vlan200
D*EX 0.0.0.0/0 [170/261120] via 10.1.4.9, 01:00:55, FastEthernet0/1
DSW2#
```

```
DSW2#show processes cpu
CPU utilization for five seconds: 0%/0%; one minute: 0%; five minutes: 0%
  PID Runtime(ms)     Invoked      uSecs   5Sec    1Min   5Min TTY Process
    1          4           9        444  0.00%   0.00%  0.00%   0 Chunk
Manager
    2          0         805          0  0.00%   0.00%  0.00%   0 Load Meter
    3          8          24        333  0.00%   0.00%  0.00%   0 SpanTree
Helper
    4       3536         474       7459  0.00%   0.06%  0.05%   0 Check
heaps
    5          0           3          0  0.00%   0.00%  0.00%   0 Pool
Manager
    6          0           2          0  0.00%   0.00%  0.00%   0 Timers
    7          0           1          0  0.00%   0.00%  0.00%   0 Crash
writer
    8         12         120        100  0.00%   0.00%  0.00%   0 ARP Input
    9          0           1          0  0.00%   0.00%  0.00%   0 CEF MIB
API
   10          0           1          0  0.00%   0.00%  0.00%   0
AAA_SERVER_DEADT
   11          4           2       2000  0.00%   0.00%  0.00%   0 AAA high-
capacit
   12          0           1          0  0.00%   0.00%  0.00%   0 Policy
Manager
   13         12           3       4000  0.00%   0.00%  0.00%   0 Entity MIB
API
   14          0           1          0  0.00%   0.00%  0.00%   0 IFS Agent
Manage
   15          0          68          0  0.00%   0.00%  0.00%   0 IPC
Dynamic Cach
   16          0           1          0  0.00%   0.00%  0.00%   0 IPC Zone
Manager
   17          0        4040          0  0.00%   0.00%  0.00%   0 IPC
Periodic Tim
   18          0           1          0  0.00%   0.00%  0.00%   0 IPC
Managed Time
   19          4        4041          0  0.00%   0.00%  0.00%   0 IPC
Deferred Por
```

20	0	2	0	0.00%	0.00%	0.00%	0	IPC Seat Manager
21	0	1	0	0.00%	0.00%	0.00%	0	IPC Session Serv
22	8	4041	1	0.00%	0.00%	0.00%	0	Dynamic ARP Insp
23	0	1	0	0.00%	0.00%	0.00%	0	ARP Snoop
24	0	1	0	0.00%	0.00%	0.00%	0	Net Input
25	0	4023	0	0.00%	0.00%	0.00%	0	GraphIt
26	0	2	0	0.00%	0.00%	0.00%	0	XML Proxy Client
27	0	1	0	0.00%	0.00%	0.00%	0	Critical Bkgnd
28	52	5266	9	0.00%	0.00%	0.00%	0	Net Background
29	0	10	0	0.00%	0.00%	0.00%	0	IDB Work
30	12	31	387	0.00%	0.00%	0.00%	0	Logger
31	0	4020	0	0.00%	0.00%	0.00%	0	TTY Background
32	8	4032	1	0.00%	0.00%	0.00%	0	Per-Second Jobs
33	552	69	8000	0.00%	0.00%	0.00%	0	Per-minute Jobs
34	4	8	500	0.00%	0.00%	0.00%	0	IF-MGR control p
35	0	53	0	0.00%	0.00%	0.00%	0	IF-MGR event pro
36	0	1	0	0.00%	0.00%	0.00%	0	AggMgr Process
37	4	807	4	0.00%	0.00%	0.00%	0	Compute load avg
38	0	1209	0	0.00%	0.00%	0.00%	0	HC Counter Timer
39	0	3981	0	0.00%	0.00%	0.00%	0	Vegas Storm Cont
40	1164	576	2020	0.23%	0.14%	0.19%	0	Exec
41	8	77314	0	0.00%	0.00%	0.00%	0	DownWhenLooped
42	0	5	0	0.00%	0.00%	0.00%	0	Collection proce
43	4268	100489	42	0.23%	0.08%	0.08%	0	Vegas LED Proces
44	0	1	0	0.00%	0.00%	0.00%	0	SCQ_PROCESS
45	128	26536	4	0.00%	0.00%	0.00%	0	RAM Access
46	40	49048	0	0.00%	0.00%	0.00%	0	SW Frame Ager
47	24	34	705	0.00%	0.00%	0.00%	0	VLAN Info Update
48	0	1	0	0.00%	0.00%	0.00%	0	JADE Gbit lockup
49	0	8046	0	0.00%	0.00%	0.00%	0	L2TM Process
50	4	8048	0	0.00%	0.00%	0.00%	0	L3TM

51	16060	11942	1344	0.39%	0.39%	0.39%	0	Vegas Statistics
52	0	55863	0	0.00%	0.00%	0.00%	0	HMATM Learn proc
53	0	4026	0	0.00%	0.00%	0.00%	0	HMATM Age proces
54	8	63	126	0.00%	0.00%	0.00%	0	VL2MM
55	4	4046	0	0.00%	0.00%	0.00%	0	L3MD
56	1256	10070	124	0.07%	0.00%	0.00%	0	L3MD_STAT
57	0	1	0	0.00%	0.00%	0.00%	0	Vegas Bridging
58	556	50298	11	0.00%	0.00%	0.00%	0	VegasPM
59	12	2061	5	0.00%	0.00%	0.00%	0	VUR_MGR bg proce
60	20	4026	4	0.00%	0.00%	0.00%	0	PI MATM Aging Pr
61	0	1	0	0.00%	0.00%	0.00%	0	Switch Backup In
62	0	68	0	0.00%	0.00%	0.00%	0	MMN bkgrd proces
63	0	2	0	0.00%	0.00%	0.00%	0	Dot1x Mgr Proces
64	0	2	0	0.00%	0.00%	0.00%	0	802.1x Accountin
65	0	1	0	0.00%	0.00%	0.00%	0	MAB Framework
66	0	2	0	0.00%	0.00%	0.00%	0	802.1x switch
67	0	1	0	0.00%	0.00%	0.00%	0	802.1x Webauth F
68	116	1612	71	0.00%	0.00%	0.00%	0	DTP Protocol
69	0	1	0	0.00%	0.00%	0.00%	0	EAP Framework
70	0	68	0	0.00%	0.00%	0.00%	0	Port- Security
72	0	20	0	0.00%	0.00%	0.00%	0	Switch IP Host T
73	0	405	0	0.00%	0.00%	0.00%	0	Ethchnl
74	8	4028	1	0.00%	0.00%	0.00%	0	UDLD
75	0	1	0	0.00%	0.00%	0.00%	0	Vegas IPSG Proce
76	0	21	0	0.00%	0.00%	0.00%	0	VMATM Callback
77	0	33	0	0.00%	0.00%	0.00%	0	HL3U PBR bkgrd p
78	0	34	0	0.00%	0.00%	0.00%	0	Vegas PBR n-h re
79	0	2	0	0.00%	0.00%	0.00%	0	AAA Server
80	0	1	0	0.00%	0.00%	0.00%	0	AAA ACCT Proc
81	0	1	0	0.00%	0.00%	0.00%	0	ACCT Periodic Pr

82	0	1	0	0.00%	0.00%	0.00%	0	AAA System Acct
83	0	1	0	0.00%	0.00%	0.00%	0	Auth-proxy AAA B
84	0	14	0	0.00%	0.00%	0.00%	0	IP Admin SM Proc
85	416	1558	267	0.07%	0.00%	0.00%	0	CDP Protocol
87	0	1	0	0.00%	0.00%	0.00%	0	Key Proc
88	0	2	0	0.00%	0.00%	0.00%	0	AAA Dictionary R
89	0	34	0	0.00%	0.00%	0.00%	0	DHCP Snooping
90	0	3	0	0.00%	0.00%	0.00%	0	CEF switching ba
91	968	6446	150	0.00%	0.01%	0.00%	0	IP Input
92	0	1	0	0.00%	0.00%	0.00%	0	ICMP event handl
93	0	7867	0	0.00%	0.00%	0.00%	0	IP ARP Track
94	0	5	0	0.00%	0.00%	0.00%	0	ADJ resolve proc
95	712	8549	83	0.00%	0.00%	0.00%	0	Spanning Tree
96	0	2	0	0.00%	0.00%	0.00%	0	EAPoUDP Process
97	0	2	0	0.00%	0.00%	0.00%	0	KRB5 AAA
98	0	70	0	0.00%	0.00%	0.00%	0	CEF background p
99	0	1	0	0.00%	0.00%	0.00%	0	IP IRDP
100	0	53	0	0.00%	0.00%	0.00%	0	Cluster L2
101	0	404	0	0.00%	0.00%	0.00%	0	Cluster RARP
102	104	1118	93	0.00%	0.00%	0.00%	0	Cluster Base
103	0	1	0	0.00%	0.00%	0.00%	0	TCP Timer
104	0	1	0	0.00%	0.00%	0.00%	0	TCP Protocols
105	0	1	0	0.00%	0.00%	0.00%	0	Socket Timers
106	0	16	0	0.00%	0.00%	0.00%	0	HTTP CORE
107	0	1	0	0.00%	0.00%	0.00%	0	RARP Input
108	0	1	0	0.00%	0.00%	0.00%	0	802.1x Critical
109	32	29	1103	0.00%	0.00%	0.00%	0	L2MM
110	48	343	139	0.00%	0.00%	0.00%	0	MRD
111	68	352	193	0.00%	0.00%	0.00%	0	IGMPSN
112	0	1	0	0.00%	0.00%	0.00%	0	IGMPQR
113	0	2	0	0.00%	0.00%	0.00%	0	L2TRACE SERVER
114	0	1	0	0.00%	0.00%	0.00%	0	Vegas wccp manag
115	0	4	0	0.00%	0.00%	0.00%	0	Crypto ACL

116	32	81	395	0.00%	0.00%	0.00%	0	IP RIB Update
117	0	22	0	0.00%	0.00%	0.00%	0	DHCPD Receive
118	0	1	0	0.00%	0.00%	0.00%	0	Transport Port A
119	1796	13	138153	0.00%	0.00%	0.04%	0	crypto sw pk pro
120	0	2	0	0.00%	0.00%	0.00%	0	Crypto Support
121	0	2	0	0.00%	0.00%	0.00%	0	LOCAL AAA
122	0	2	0	0.00%	0.00%	0.00%	0	ENABLE AAA
123	0	2	0	0.00%	0.00%	0.00%	0	LINE AAA
125	0	2	0	0.00%	0.00%	0.00%	0	TPLUS
126	0	1	0	0.00%	0.00%	0.00%	0	CRYPTO QoS proce
127	0	1	0	0.00%	0.00%	0.00%	0	Crypto INT
128	4	4	1000	0.00%	0.00%	0.00%	0	Crypto IKMP
129	100	204	490	0.00%	0.00%	0.00%	0	IPSEC key engine
130	0	1	0	0.00%	0.00%	0.00%	0	IPSEC manual key
131	0	1	0	0.00%	0.00%	0.00%	0	Crypto PAS Proc
132	0	12	0	0.00%	0.00%	0.00%	0	crypto engine pr
133	24	4	6000	0.00%	0.00%	0.00%	0	Crypto CA
134	0	1	0	0.00%	0.00%	0.00%	0	Crypto PKI-CRL
135	0	1	0	0.00%	0.00%	0.00%	0	Crypto SSL
136	0	1	0	0.00%	0.00%	0.00%	0	encrypt proc
137	0	4033	0	0.00%	0.00%	0.00%	0	Vegas EnvMon Pro
138	0	2	0	0.00%	0.00%	0.00%	0	VTPMIB EDIT BUFF
139	0	2	0	0.00%	0.00%	0.00%	0	DHCP Security He
140	12	6642	1	0.00%	0.00%	0.00%	0	PM Callback
141	8	34	235	0.00%	0.00%	0.00%	0	VLAN Manager
142	0	34	0	0.00%	0.00%	0.00%	0	DHCPD Timer
143	0	324	0	0.00%	0.00%	0.00%	0	dhcp snooping sw
144	188	1352	139	0.00%	0.00%	0.00%	0	Inline Power
145	280	8927	31	0.07%	0.00%	0.00%	0	Marvell wk-a Pow
146	0	2	0	0.00%	0.00%	0.00%	0	Inline Power Twe

147	0	1	0	0.00%	0.00%	0.00%	0	VFM Queue Proces
148	4	1	4000	0.00%	0.00%	0.00%	0	VFM/VQM Merge Pr
149	0	1	0	0.00%	0.00%	0.00%	0	VFM Deferred Upd
150	4	13	307	0.00%	0.00%	0.00%	0	VTP Trap Process
152	0	2	0	0.00%	0.00%	0.00%	0	AAA SEND STOP EV
153	0	1	0	0.00%	0.00%	0.00%	0	Syslog Traps
154	0	1	0	0.00%	0.00%	0.00%	0	DATA Transfer Pr
155	0	1	0	0.00%	0.00%	0.00%	0	DATA Collector
156	4	22	181	0.00%	0.00%	0.00%	0	Syslog
157	0	1	0	0.00%	0.00%	0.00%	0	C3550 DHCP Snoop
158	0	2	0	0.00%	0.00%	0.00%	0	STP STACK TOPOLO
159	0	2	0	0.00%	0.00%	0.00%	0	STP FAST TRANSIT
160	0	2	0	0.00%	0.00%	0.00%	0	STP STACK TOPOLO
161	0	2	0	0.00%	0.00%	0.00%	0	CSRT RAPID TRANS
163	0	5	0	0.00%	0.00%	0.00%	0	SSH Event handle
164	0	18	0	0.00%	0.00%	0.00%	0	IPv6 RIB Redistr
165	24	6319	3	0.00%	0.00%	0.00%	0	CEF: IPv4 proces
166	4	1	4000	0.00%	0.00%	0.00%	0	ADJ background
167	8	128	62	0.00%	0.00%	0.00%	0	IP Background
168	20	219	91	0.00%	0.00%	0.00%	0	IPv6 Input
169	4	192	20	0.00%	0.00%	0.00%	0	IPv6 IDB
170	0	4	0	0.00%	0.00%	0.00%	0	IPv6 ND
171	32	473	67	0.00%	0.00%	0.00%	0	IPv6 RIP
172	8	4037	1	0.00%	0.00%	0.00%	0	DVMRP Timers
173	56	4388	12	0.00%	0.00%	0.00%	0	IGMP Input
174	120	5292	22	0.00%	0.00%	0.00%	0	PIM Process
175	32	40337	0	0.00%	0.00%	0.00%	0	Mwheel Process
176	168	895	187	0.00%	0.00%	0.00%	0	PAgP
177	116	1336	86	0.00%	0.00%	0.00%	0	LACP Protocol
178	108	2807	38	0.00%	0.00%	0.00%	0	HSRP (Standby)

```
 180           4         1141           3  0.00%  0.00%  0.00%    0 DHCPD
Database
 181           0           17           0  0.00%  0.00%  0.00%    0 EIGRP:
Router
 182         508         4156         122  0.00%  0.00%  0.00%    0 EIGRP-
IPv4:
 183         312         7102          43  0.00%  0.00%  0.00%    0 EIGRP-
IPv4: Hell
DSW2#
```

```
DSW2#show interfaces
Vlan1 is administratively down, line protocol is down
  Hardware is EtherSVI, address is 000b.fd20.ba00 (bia 000b.fd20.ba00)
  MTU 1500 bytes, BW 1000000 Kbit, DLY 10 usec,
     reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation ARPA, loopback not set
  Keepalive not supported
  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 multicasts)
     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, 1 interface resets
     0 output buffer failures, 0 output buffers swapped out
Vlan10 is up, line protocol is up
  Hardware is EtherSVI, address is 000b.fd20.ba00 (bia 000b.fd20.ba00)
  Internet address is 10.2.1.2/24
  MTU 1500 bytes, BW 1000000 Kbit, DLY 10 usec,
     reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation ARPA, loopback not set
  Keepalive not supported
  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: 6
  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
     2646 packets input, 210042 bytes, 0 no buffer
     Received 0 broadcasts (876 IP multicasts)
     0 runts, 0 giants, 0 throttles
     0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
     2562 packets output, 176279 bytes, 0 underruns
     0 output errors, 0 interface resets
     0 output buffer failures, 0 output buffers swapped out
Vlan20 is up, line protocol is up
  Hardware is EtherSVI, address is 000b.fd20.ba00 (bia 000b.fd20.ba00)
  Internet address is 10.2.2.1/24
  MTU 1500 bytes, BW 1000000 Kbit, DLY 10 usec,
```

```
       reliability 255/255, txload 1/255, rxload 1/255
    Encapsulation ARPA, loopback not set
    Keepalive not supported
    ARP type: ARPA, ARP Timeout 04:00:00
    Last input 00:00:02, 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: 6
    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
       1052 packets input, 83250 bytes, 0 no buffer
       Received 0 broadcasts (878 IP multicasts)
       0 runts, 0 giants, 0 throttles
       0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
       1136 packets output, 84615 bytes, 0 underruns
       0 output errors, 0 interface resets
       0 output buffer failures, 0 output buffers swapped out
Vlan200 is up, line protocol is up
   Hardware is EtherSVI, address is 000b.fd20.ba00 (bia 000b.fd20.ba00)
   Internet address is 192.168.1.130/27
   MTU 1500 bytes, BW 1000000 Kbit, DLY 10 usec,
       reliability 255/255, txload 1/255, rxload 1/255
   Encapsulation ARPA, loopback not set
   Keepalive not supported
   ARP type: ARPA, ARP Timeout 04:00:00
   Last input never, output 01:06:41, output hang never
   Last clearing of "show interface" counters never
   Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 6
   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 multicasts)
       0 runts, 0 giants, 0 throttles
       0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
       1 packets output, 60 bytes, 0 underruns
       0 output errors, 0 interface resets
       0 output buffer failures, 0 output buffers swapped out
FastEthernet0/1 is up, line protocol is up (connected)
   Hardware is Fast Ethernet, address is 000b.fd20.ba00 (bia
000b.fd20.ba00)
   Internet address is 10.1.4.10/30
   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 10/100BaseTX
   input flow-control is off, output flow-control is unsupported
   ARP type: ARPA, ARP Timeout 04:00:00
   Last input 00:00:03, output 00:00:02, output hang never
   Last clearing of "show interface" counters never
   Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
```

```
   Queueing strategy: fifo
   Output queue: 0/40 (size/max)
   5 minute input rate 0 bits/sec, 0 packets/sec
   5 minute output rate 0 bits/sec, 0 packets/sec
      1815 packets input, 157832 bytes, 0 no buffer
      Received 1170 broadcasts (884 IP multicasts)
      0 runts, 0 giants, 0 throttles
      0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
      0 watchdog, 1167 multicast, 0 pause input
      0 input packets with dribble condition detected
      1751 packets output, 168291 bytes, 0 underruns
      0 output errors, 0 collisions, 3 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 000b.fd20.ba02 (bia
000b.fd20.ba02)
   MTU 1500 bytes, BW 10000 Kbit, DLY 1000 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 10/100BaseTX
   input flow-control is off, output flow-control is unsupported
   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 multicasts)
      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
      0 packets output, 0 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
FastEthernet0/3 is down, line protocol is down (notconnect)
   Hardware is Fast Ethernet, address is 000b.fd20.ba03 (bia
000b.fd20.ba03)
   MTU 1500 bytes, BW 10000 Kbit, DLY 1000 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 10/100BaseTX
   input flow-control is off, output flow-control is unsupported
   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 multicasts)
        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
        0 packets output, 0 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
FastEthernet0/4 is administratively down, line protocol is down
(disabled)
  Hardware is Fast Ethernet, address is 000b.fd20.ba04 (bia
000b.fd20.ba04)
  MTU 1500 bytes, BW 10000 Kbit, DLY 1000 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 10/100BaseTX
    input flow-control is off, output flow-control is unsupported
    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 multicasts)
        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
        0 packets output, 0 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
FastEthernet0/5 is administratively down, line protocol is down
(disabled)
  Hardware is Fast Ethernet, address is 000b.fd20.ba05 (bia
000b.fd20.ba05)
  MTU 1500 bytes, BW 10000 Kbit, DLY 1000 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 10/100BaseTX
  input flow-control is off, output flow-control is unsupported
  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 multicasts)
     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
     0 packets output, 0 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
FastEthernet0/6 is administratively down, line protocol is down
(disabled)
  Hardware is Fast Ethernet, address is 000b.fd20.ba06 (bia
000b.fd20.ba06)
  MTU 1500 bytes, BW 10000 Kbit, DLY 1000 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 10/100BaseTX
  input flow-control is off, output flow-control is unsupported
  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 multicasts)
     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
     0 packets output, 0 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
FastEthernet0/7 is administratively down, line protocol is down
(disabled)
```

```
  Hardware is Fast Ethernet, address is 000b.fd20.ba07 (bia
000b.fd20.ba07)
  MTU 1500 bytes, BW 10000 Kbit, DLY 1000 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 10/100BaseTX
  input flow-control is off, output flow-control is unsupported
  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 multicasts)
     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
     0 packets output, 0 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
FastEthernet0/8 is administratively down, line protocol is down
(disabled)
  Hardware is Fast Ethernet, address is 000b.fd20.ba08 (bia
000b.fd20.ba08)
  MTU 1500 bytes, BW 10000 Kbit, DLY 1000 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 10/100BaseTX
  input flow-control is off, output flow-control is unsupported
  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 multicasts)
     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
     0 packets output, 0 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
FastEthernet0/9 is administratively down, line protocol is down
(disabled)
  Hardware is Fast Ethernet, address is 000b.fd20.ba09 (bia
000b.fd20.ba09)
  MTU 1500 bytes, BW 10000 Kbit, DLY 1000 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 10/100BaseTX
  input flow-control is off, output flow-control is unsupported
  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 multicasts)
      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
      0 packets output, 0 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
FastEthernet0/10 is administratively down, line protocol is down
(disabled)
  Hardware is Fast Ethernet, address is 000b.fd20.ba0a (bia
000b.fd20.ba0a)
  MTU 1500 bytes, BW 10000 Kbit, DLY 1000 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 10/100BaseTX
  input flow-control is off, output flow-control is unsupported
  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 multicasts)
      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
       0 packets output, 0 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
FastEthernet0/11 is administratively down, line protocol is down
(disabled)
  Hardware is Fast Ethernet, address is 000b.fd20.ba0b (bia
000b.fd20.ba0b)
  MTU 1500 bytes, BW 10000 Kbit, DLY 1000 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 10/100BaseTX
  input flow-control is off, output flow-control is unsupported
  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 multicasts)
     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
     0 packets output, 0 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
FastEthernet0/12 is administratively down, line protocol is down
(disabled)
  Hardware is Fast Ethernet, address is 000b.fd20.ba0c (bia
000b.fd20.ba0c)
  MTU 1500 bytes, BW 10000 Kbit, DLY 1000 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 10/100BaseTX
  input flow-control is off, output flow-control is unsupported
  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 multicasts)
     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
     0 packets output, 0 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
FastEthernet0/13 is administratively down, line protocol is down
(disabled)
  Hardware is Fast Ethernet, address is 000b.fd20.ba0d (bia
000b.fd20.ba0d)
  MTU 1500 bytes, BW 10000 Kbit, DLY 1000 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 10/100BaseTX
  input flow-control is off, output flow-control is unsupported
  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 multicasts)
     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
     0 packets output, 0 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
FastEthernet0/14 is administratively down, line protocol is down
(disabled)
  Hardware is Fast Ethernet, address is 000b.fd20.ba0e (bia
000b.fd20.ba0e)
  MTU 1500 bytes, BW 10000 Kbit, DLY 1000 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 10/100BaseTX
  input flow-control is off, output flow-control is unsupported
  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 multicasts)
      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
      0 packets output, 0 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
FastEthernet0/15 is down, line protocol is down (notconnect)
  Hardware is Fast Ethernet, address is 000b.fd20.ba0f (bia
000b.fd20.ba0f)
  MTU 1500 bytes, BW 10000 Kbit, DLY 1000 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 10/100BaseTX
  input flow-control is off, output flow-control is unsupported
  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 multicasts)
     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
     0 packets output, 0 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
FastEthernet0/16 is up, line protocol is up (connected)
  Hardware is Fast Ethernet, address is 000b.fd20.ba10 (bia
000b.fd20.ba10)
  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 10/100BaseTX
  input flow-control is off, output flow-control is unsupported
  ARP type: ARPA, ARP Timeout 04:00:00
  Last input 00:00:06, 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
      3882 packets input, 314348 bytes, 0 no buffer
      Received 3434 broadcasts (0 multicasts)
      0 runts, 0 giants, 0 throttles
      0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
      0 watchdog, 3432 multicast, 0 pause input
      0 input packets with dribble condition detected
      1922 packets output, 172581 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
FastEthernet0/17 is up, line protocol is up (connected)
   Hardware is Fast Ethernet, address is 000b.fd20.ba11 (bia
000b.fd20.ba11)
   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 10/100BaseTX
   input flow-control is off, output flow-control is unsupported
   ARP type: ARPA, ARP Timeout 04:00:00
   Last input 00:00:01, output 00:00:07, output hang never
   Last clearing of "show interface" counters never
   Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
   Queueing strategy: fifo
   Output queue: 0/40 (size/max)
   5 minute input rate 0 bits/sec, 0 packets/sec
   5 minute output rate 0 bits/sec, 0 packets/sec
      769 packets input, 77738 bytes, 0 no buffer
      Received 363 broadcasts (0 multicasts)
      0 runts, 0 giants, 0 throttles
      0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
      0 watchdog, 363 multicast, 0 pause input
      0 input packets with dribble condition detected
      779 packets output, 78310 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
FastEthernet0/18 is up, line protocol is up (connected)
   Hardware is Fast Ethernet, address is 000b.fd20.ba12 (bia
000b.fd20.ba12)
   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 10/100BaseTX
   input flow-control is off, output flow-control is unsupported
   ARP type: ARPA, ARP Timeout 04:00:00
```

```
   Last input 00:00:10, 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
      768 packets input, 77648 bytes, 0 no buffer
      Received 362 broadcasts (0 multicasts)
      0 runts, 0 giants, 0 throttles
      0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
      0 watchdog, 362 multicast, 0 pause input
      0 input packets with dribble condition detected
      2802 packets output, 223484 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
FastEthernet0/19 is up, line protocol is up (connected)
  Hardware is Fast Ethernet, address is 000b.fd20.ba13 (bia
000b.fd20.ba13)
  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 10/100BaseTX
  input flow-control is off, output flow-control is unsupported
  ARP type: ARPA, ARP Timeout 04:00:00
  Last input 00:00:00, output 00:00:00, output hang never
  Last clearing of "show interface" counters never
  Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
  Queueing strategy: fifo
  Output queue: 0/40 (size/max)
  5 minute input rate 1000 bits/sec, 1 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
     7798 packets input, 622256 bytes, 0 no buffer
     Received 7323 broadcasts (0 multicasts)
     0 runts, 0 giants, 0 throttles
     0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
     0 watchdog, 7185 multicast, 0 pause input
     0 input packets with dribble condition detected
     3360 packets output, 282155 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
FastEthernet0/20 is up, line protocol is up (connected)
  Hardware is Fast Ethernet, address is 000b.fd20.ba14 (bia
000b.fd20.ba14)
  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 10/100BaseTX
```

```
   input flow-control is off, output flow-control is unsupported
   ARP type: ARPA, ARP Timeout 04:00:00
   Last input 00:00:02, 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
      775 packets input, 84475 bytes, 0 no buffer
      Received 363 broadcasts (0 multicasts)
      0 runts, 0 giants, 0 throttles
      0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
      0 watchdog, 363 multicast, 0 pause input
      0 input packets with dribble condition detected
      878 packets output, 92132 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
FastEthernet0/21 is up, line protocol is up (connected)
  Hardware is Fast Ethernet, address is 000b.fd20.ba15 (bia
000b.fd20.ba15)
  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 10/100BaseTX
  input flow-control is off, output flow-control is unsupported
  ARP type: ARPA, ARP Timeout 04:00:00
  Last input 00:00:04, 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
      771 packets input, 83933 bytes, 0 no buffer
      Received 363 broadcasts (0 multicasts)
      0 runts, 0 giants, 0 throttles
      0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
      0 watchdog, 363 multicast, 0 pause input
      0 input packets with dribble condition detected
      773 packets output, 83276 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
FastEthernet0/22 is up, line protocol is up (connected)
  Hardware is Fast Ethernet, address is 000b.fd20.ba00 (bia
000b.fd20.ba00)
  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 10/100BaseTX
    input flow-control is off, output flow-control is unsupported
    ARP type: ARPA, ARP Timeout 04:00:00
    Last input 00:00:54, 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
       1788 packets input, 171643 bytes, 0 no buffer
       Received 1178 broadcasts (0 multicasts)
       0 runts, 0 giants, 0 throttles
       0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
       0 watchdog, 1176 multicast, 0 pause input
       0 input packets with dribble condition detected
       1790 packets output, 161921 bytes, 0 underruns
       0 output errors, 0 collisions, 3 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 up, line protocol is up (connected)
  Hardware is Fast Ethernet, address is 000b.fd20.ba00 (bia
000b.fd20.ba00)
  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 10/100BaseTX
  input flow-control is off, output flow-control is unsupported
  ARP type: ARPA, ARP Timeout 04:00:00
  Last input 00:00:56, output 00:00:02, output hang never
  Last clearing of "show interface" counters never
  Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
  Queueing strategy: fifo
  Output queue: 0/40 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
     481 packets input, 52858 bytes, 0 no buffer
     Received 69 broadcasts (0 multicasts)
     0 runts, 0 giants, 0 throttles
     0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
     0 watchdog, 69 multicast, 0 pause input
     0 input packets with dribble condition detected
     479 packets output, 54512 bytes, 0 underruns
     0 output errors, 0 collisions, 3 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 up, line protocol is up (connected)
  Hardware is Fast Ethernet, address is 000b.fd20.ba00 (bia
000b.fd20.ba00)
  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 10/100BaseTX
   input flow-control is off, output flow-control is unsupported
   ARP type: ARPA, ARP Timeout 04:00:00
   Last input 00:00:58, 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
      476 packets input, 52268 bytes, 0 no buffer
      Received 69 broadcasts (0 multicasts)
      0 runts, 0 giants, 0 throttles
      0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
      0 watchdog, 69 multicast, 0 pause input
      0 input packets with dribble condition detected
      480 packets output, 54912 bytes, 0 underruns
      0 output errors, 0 collisions, 3 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
GigabitEthernet0/1 is administratively down, line protocol is down
(disabled)
   Hardware is Gigabit Ethernet, address is 000b.fd20.ba19 (bia
000b.fd20.ba19)
   MTU 1500 bytes, BW 10000 Kbit, DLY 1000 usec,
      reliability 255/255, txload 1/255, rxload 1/255
   Encapsulation ARPA, loopback not set
   Keepalive not set
   Auto-duplex, Auto-speed, link type is auto, media type is unknown
   input flow-control is off, output flow-control is off
   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 multicasts)
      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
      0 packets output, 0 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
```

```
GigabitEthernet0/2 is administratively down, line protocol is down
(disabled)
  Hardware is Gigabit Ethernet, address is 000b.fd20.ba1a (bia
000b.fd20.ba1a)
  MTU 1500 bytes, BW 10000 Kbit, DLY 1000 usec,
     reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation ARPA, loopback not set
  Keepalive not set
  Auto-duplex, Auto-speed, link type is auto, media type is unknown
  input flow-control is off, output flow-control is off
  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 multicasts)
     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
     0 packets output, 0 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-channel12 is up, line protocol is up (connected)
  Hardware is EtherChannel, address is 000b.fd20.ba00 (bia
000b.fd20.ba00)
  Internet address is 10.2.4.14/30
  MTU 1500 bytes, BW 300000 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 10/100BaseTX
  input flow-control is off, output flow-control is unsupported
  Members in this channel: Fa0/22 Fa0/23 Fa0/24
  ARP type: ARPA, ARP Timeout 04:00:00
  Last input 00:00:01, 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 1000 bits/sec, 1 packets/sec
  5 minute output rate 1000 bits/sec, 1 packets/sec
     2754 packets input, 278333 bytes, 0 no buffer
     Received 1322 broadcasts (902 IP multicasts)
     0 runts, 0 giants, 0 throttles
     0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
     0 watchdog, 1320 multicast, 0 pause input
     0 input packets with dribble condition detected
```

```
      2753 packets output, 272313 bytes, 0 underruns
      0 output errors, 0 collisions, 4 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-channel23 is up, line protocol is up (connected)
  Hardware is EtherChannel, address is 000b.fd20.ba13 (bia
000b.fd20.ba13)
  MTU 1500 bytes, BW 300000 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 10/100BaseTX
  input flow-control is off, output flow-control is unsupported
  Members in this channel: Fa0/19 Fa0/20 Fa0/21
  ARP type: ARPA, ARP Timeout 04:00:00
  Last input 00:00:00, output 01:07:56, 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 1000 bits/sec, 2 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
      9346 packets input, 790356 bytes, 0 no buffer
      Received 8048 broadcasts (0 multicasts)
      0 runts, 0 giants, 0 throttles
      0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
      0 watchdog, 7910 multicast, 0 pause input
      0 input packets with dribble condition detected
      4992 packets output, 455411 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-channel24 is up, line protocol is up (connected)
  Hardware is EtherChannel, address is 000b.fd20.ba10 (bia
000b.fd20.ba10)
  MTU 1500 bytes, BW 300000 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 10/100BaseTX
  input flow-control is off, output flow-control is unsupported
  Members in this channel: Fa0/16 Fa0/17 Fa0/18
  ARP type: ARPA, ARP Timeout 04:00:00
  Last input 00:00:01, output 00:00:00, 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
      5426 packets input, 471351 bytes, 0 no buffer
      Received 4160 broadcasts (0 multicasts)
```

```
        0 runts, 0 giants, 0 throttles
        0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
        0 watchdog, 4158 multicast, 0 pause input
        0 input packets with dribble condition detected
        5504 packets output, 474495 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
Tunnel67 is up, line protocol is up
   Hardware is Tunnel
   MTU 1514 bytes, BW 100 Kbit, DLY 50000 usec,
        reliability 255/255, txload 1/255, rxload 1/255
   Encapsulation TUNNEL, loopback not set
   Keepalive not set
   Tunnel source 10.2.4.14, destination 10.2.4.13
   Tunnel protocol/transport GRE/IP, key disabled, sequencing disabled
   Tunnel TTL 255
   Checksumming of packets disabled
   Last input 00:00:16, output 00:00:23, 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: 0/0 (size/max)
   5 minute input rate 0 bits/sec, 0 packets/sec
   5 minute output rate 0 bits/sec, 0 packets/sec
        155 packets input, 25988 bytes, 0 no buffer
        Received 0 broadcasts (0 IP multicasts)
        0 runts, 0 giants, 0 throttles
        0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored, 0 abort
        153 packets output, 14656 bytes, 0 underruns
        0 output errors, 0 collisions, 0 interface resets
        0 output buffer failures, 0 output buffers swapped out
DSW2#
```

```
DSW2#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
```

Port					
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
Gi0/1	0	0	0	0	0
Gi0/2	0	0	0	0	0
Po12	0	0	0	0	0
Po23	0	0	0	0	0
Po24	0	0	0	0	0

Port Giants	Single-Col	Multi-Col	Late-Col	Excess-Col	Carri-Sen	Runts
Fa0/1 0	0	0	0	0	0	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	0	0	0
Fa0/17 0	0	0	0	0	0	0
Fa0/18 0	0	0	0	0	0	0
Fa0/19 0	0	0	0	0	0	0
Fa0/20 0	0	0	0	0	0	0
Fa0/21 0	0	0	0	0	0	0

Fa0/22	0	0	0	0	0	0
0						
Fa0/23	0	0	0	0	0	0
0						
Fa0/24	0	0	0	0	0	0
0						
Gi0/1	0	0	0	0	0	0
0						
Gi0/2	0	0	0	0	0	0
0						
Po12	0	0	0	0	0	0
0						
Po23	0	0	0	0	0	0
0						
Po24	0	0	0	0	0	0
0						

DSW2#

```
DSW2#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
R4               Fas 0/1          165          R S I     1841      Fas
0/1
DSW1             Fas 0/24         158          R S I     WS-C3550- Fas
0/24
DSW1             Fas 0/23         158          R S I     WS-C3550- Fas
0/23
DSW1             Fas 0/22         158          R S I     WS-C3550- Fas
0/22
ASW1             Fas 0/21         147           S I      WS-C2950- Fas
0/18
ASW1             Fas 0/20         147           S I      WS-C2950- Fas
0/17
ASW1             Fas 0/19         147           S I      WS-C2950- Fas
0/16
ASW2             Fas 0/18         147           S I      WS-C2950- Fas
0/21
ASW2             Fas 0/17         147           S I      WS-C2950- Fas
0/20
ASW2             Fas 0/16         147           S I      WS-C2950- Fas
0/19
DSW2#
```

```
DSW2#show cdp neighbors detail
-------------------------
Device ID: R4
Entry address(es):
  IP address: 10.1.4.9
Platform: Cisco 1841,  Capabilities: Router Switch IGMP
Interface: FastEthernet0/1,  Port ID (outgoing port): FastEthernet0/1
Holdtime : 157 sec

Version :
Cisco IOS Software, 1841 Software (C1841-ADVIPSERVICESK9-M), Version
12.4(25b), RELEASE SOFTWARE (fc1)
Technical Support: http://www.cisco.com/techsupport
Copyright (c) 1986-2009 by Cisco Systems, Inc.
Compiled Wed 12-Aug-09 10:49 by prod_rel_team
```

```
advertisement version: 2
VTP Management Domain: ''
Duplex: full
Management address(es):

-------------------------
Device ID: DSW1
Entry address(es):
  IP address: 10.2.4.13
Platform: Cisco WS-C3550-24,  Capabilities: Router Switch IGMP
Interface: FastEthernet0/24,  Port ID (outgoing port): FastEthernet0/24
Holdtime : 149 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=00000000FFFFFFFF0102250C000000000000000DBDE36E00FF0000
VTP Management Domain: 'netlearning'
Duplex: full
Management address(es):
  IP address: 10.2.4.13

-------------------------
Device ID: DSW1
Entry address(es):
  IP address: 10.2.4.13
Platform: Cisco WS-C3550-24,  Capabilities: Router Switch IGMP
Interface: FastEthernet0/23,  Port ID (outgoing port): FastEthernet0/23
Holdtime : 148 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=00000000FFFFFFFF0102250C000000000000000DBDE36E00FF0000
VTP Management Domain: 'netlearning'
Duplex: full
Management address(es):
  IP address: 10.2.4.13

-------------------------
Device ID: DSW1
Entry address(es):
  IP address: 10.2.4.13
Platform: Cisco WS-C3550-24,  Capabilities: Router Switch IGMP
```

```
Interface: FastEthernet0/22,  Port ID (outgoing port): FastEthernet0/22
Holdtime : 147 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=00000000FFFFFFFF0102250C000000000000000DBDE36E00FF0000
VTP Management Domain: 'netlearning'
Duplex: full
Management address(es):
  IP address: 10.2.4.13

-------------------------
Device ID: ASW1
Entry address(es):
  IP address: 192.168.1.131
Platform: cisco WS-C2950-24,  Capabilities: Switch IGMP
Interface: FastEthernet0/21,  Port ID (outgoing port): FastEthernet0/18
Holdtime : 136 sec

Version :
Cisco Internetwork Operating System Software
IOS (tm) C2950 Software (C2950-I6Q4L2-M), Version 12.1(22)EA4a, RELEASE
SOFTWARE (fc1)
Copyright (c) 1986-2005 by cisco Systems, Inc.
Compiled Fri 16-Sep-05 10:46 by yenanh

advertisement version: 2
Protocol Hello:  OUI=0x00000C, Protocol ID=0x0112; payload len=27,
value=00000000FFFFFFFF0102250200000000000000015FAAC46C0FF0000
VTP Management Domain: 'netlearning'
Native VLAN: 1
Duplex: full
Management address(es):
  IP address: 192.168.1.131

-------------------------
Device ID: ASW1
Entry address(es):
  IP address: 192.168.1.131
Platform: cisco WS-C2950-24,  Capabilities: Switch IGMP
Interface: FastEthernet0/20,  Port ID (outgoing port): FastEthernet0/17
Holdtime : 135 sec

Version :
Cisco Internetwork Operating System Software
IOS (tm) C2950 Software (C2950-I6Q4L2-M), Version 12.1(22)EA4a, RELEASE
SOFTWARE (fc1)
Copyright (c) 1986-2005 by cisco Systems, Inc.
```

Compiled Fri 16-Sep-05 10:46 by yenanh

advertisement version: 2
Protocol Hello: OUI=0x00000C, Protocol ID=0x0112; payload len=27,
value=00000000FFFFFFFF010225020000000000000015FAAC46C0FF0000
VTP Management Domain: 'netlearning'
Native VLAN: 1
Duplex: full
Management address(es):
  IP address: 192.168.1.131

Device ID: ASW1
Entry address(es):
  IP address: 192.168.1.131
Platform: cisco WS-C2950-24, Capabilities: Switch IGMP
Interface: FastEthernet0/19, Port ID (outgoing port): FastEthernet0/16
Holdtime : 134 sec

Version :
Cisco Internetwork Operating System Software
IOS (tm) C2950 Software (C2950-I6Q4L2-M), Version 12.1(22)EA4a, RELEASE
SOFTWARE (fc1)
Copyright (c) 1986-2005 by cisco Systems, Inc.
Compiled Fri 16-Sep-05 10:46 by yenanh

advertisement version: 2
Protocol Hello: OUI=0x00000C, Protocol ID=0x0112; payload len=27,
value=00000000FFFFFFFF010225020000000000000015FAAC46C0FF0000
VTP Management Domain: 'netlearning'
Native VLAN: 1
Duplex: full
Management address(es):
  IP address: 192.168.1.131

Device ID: ASW2
Entry address(es):
  IP address: 192.168.1.132
Platform: cisco WS-C2950-24, Capabilities: Switch IGMP
Interface: FastEthernet0/18, Port ID (outgoing port): FastEthernet0/21
Holdtime : 133 sec

Version :
Cisco Internetwork Operating System Software
IOS (tm) C2950 Software (C2950-I6Q4L2-M), Version 12.1(22)EA4a, RELEASE
SOFTWARE (fc1)
Copyright (c) 1986-2005 by cisco Systems, Inc.
Compiled Fri 16-Sep-05 10:46 by yenanh

advertisement version: 2
Protocol Hello: OUI=0x00000C, Protocol ID=0x0112; payload len=27,
value=00000000FFFFFFFF010225010000000000000015FAB82880FF0000
VTP Management Domain: 'netlearning'

```
Native VLAN: 1
Duplex: full
Management address(es):
  IP address: 192.168.1.132

-------------------------
Device ID: ASW2
Entry address(es):
  IP address: 192.168.1.132
Platform: cisco WS-C2950-24,  Capabilities: Switch IGMP
Interface: FastEthernet0/17,  Port ID (outgoing port): FastEthernet0/20
Holdtime : 133 sec

Version :
Cisco Internetwork Operating System Software
IOS (tm) C2950 Software (C2950-I6Q4L2-M), Version 12.1(22)EA4a, RELEASE
SOFTWARE (fc1)
Copyright (c) 1986-2005 by cisco Systems, Inc.
Compiled Fri 16-Sep-05 10:46 by yenanh

advertisement version: 2
Protocol Hello:  OUI=0x00000C, Protocol ID=0x0112; payload len=27,
value=00000000FFFFFFFF010225010000000000000015FAB82880FF0000
VTP Management Domain: 'netlearning'
Native VLAN: 1
Duplex: full
Management address(es):
  IP address: 192.168.1.132

-------------------------
Device ID: ASW2
Entry address(es):
  IP address: 192.168.1.132
Platform: cisco WS-C2950-24,  Capabilities: Switch IGMP
Interface: FastEthernet0/16,  Port ID (outgoing port): FastEthernet0/19
Holdtime : 132 sec

Version :
Cisco Internetwork Operating System Software
IOS (tm) C2950 Software (C2950-I6Q4L2-M), Version 12.1(22)EA4a, RELEASE
SOFTWARE (fc1)
Copyright (c) 1986-2005 by cisco Systems, Inc.
Compiled Fri 16-Sep-05 10:46 by yenanh

advertisement version: 2
Protocol Hello:  OUI=0x00000C, Protocol ID=0x0112; payload len=27,
value=00000000FFFFFFFF010225010000000000000015FAB82880FF0000
VTP Management Domain: 'netlearning'
Native VLAN: 1
Duplex: full
Management address(es):
  IP address: 192.168.1.132

DSW2#
```

```
DSW2#show arp
Protocol  Address              Age (min)  Hardware Addr   Type   Interface
```

```
Internet  10.2.4.13            68   000d.bde3.6e00  ARPA   Port-
channel12
Internet  10.2.4.14            -    000b.fd20.ba00  ARPA   Port-
channel12
Internet  10.1.4.10            -    000b.fd20.ba00  ARPA
FastEthernet0/1
Internet  10.1.4.9             68   0019.5578.1cb3  ARPA
FastEthernet0/1
Internet  10.2.1.1             68   000d.bde3.6e00  ARPA   Vlan10
Internet  10.2.2.2             68   000d.bde3.6e00  ARPA   Vlan20
Internet  10.2.2.1             -    000b.fd20.ba00  ARPA   Vlan20
Internet  10.2.1.2             -    000b.fd20.ba00  ARPA   Vlan10
Internet  10.2.1.4             2    001c.238e.dbbc  ARPA   Vlan10
Internet  192.168.1.130        -    000b.fd20.ba00  ARPA   Vlan200
Internet  10.2.1.254           35   0000.0c07.ac0a  ARPA   Vlan10
DSW2#
```

```
DSW2#show ip arp
Protocol  Address          Age (min)  Hardware Addr   Type   Interface
Internet  10.2.4.13             68    000d.bde3.6e00  ARPA   Port-
channel12
Internet  10.2.4.14              -    000b.fd20.ba00  ARPA   Port-
channel12
Internet  10.1.4.10              -    000b.fd20.ba00  ARPA
FastEthernet0/1
Internet  10.1.4.9              68    0019.5578.1cb3  ARPA
FastEthernet0/1
Internet  10.2.1.1              68    000d.bde3.6e00  ARPA   Vlan10
Internet  10.2.2.2              68    000d.bde3.6e00  ARPA   Vlan20
Internet  10.2.2.1               -    000b.fd20.ba00  ARPA   Vlan20
Internet  10.2.1.2               -    000b.fd20.ba00  ARPA   Vlan10
Internet  10.2.1.4               2    001c.238e.dbbc  ARPA   Vlan10
Internet  192.168.1.130         -    000b.fd20.ba00  ARPA   Vlan200
Internet  10.2.1.254           35    0000.0c07.ac0a  ARPA   Vlan10
DSW2#
```

```
DSW2#show ip interface
Vlan1 is administratively down, line protocol is down
  Internet protocol processing disabled
Vlan10 is up, line protocol is up
  Internet address is 10.2.1.2/24
  Broadcast address is 255.255.255.255
  Address determined by non-volatile memory
  MTU is 1500 bytes
  Helper address is 10.1.4.9
  Directed broadcast forwarding is disabled
  Multicast reserved groups joined: 224.0.0.1 224.0.0.2 224.0.0.22
224.0.0.13
       224.0.0.10
  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 enabled
  IP CEF switching is enabled
  IP CEF switching turbo vector
  IP Null turbo vector
```

```
   IP multicast fast switching is enabled
   IP multicast distributed fast switching is disabled
   IP route-cache flags are Fast, CEF
   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
   BGP Policy Mapping is disabled
   WCCP Redirect outbound is disabled
   WCCP Redirect inbound is disabled
   WCCP Redirect exclude is disabled
Vlan20 is up, line protocol is up
   Internet address is 10.2.2.1/24
   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
   Multicast reserved groups joined: 224.0.0.1 224.0.0.2 224.0.0.22
224.0.0.13
        224.0.0.10
   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 enabled
   IP CEF switching is enabled
   IP CEF switching turbo vector
   IP Null turbo vector
   IP multicast fast switching is enabled
   IP multicast distributed fast switching is disabled
   IP route-cache flags are Fast, CEF
   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
   BGP Policy Mapping is disabled
   WCCP Redirect outbound is disabled
   WCCP Redirect inbound is disabled
   WCCP Redirect exclude is disabled
Vlan200 is up, line protocol is up
```

```
   Internet address is 192.168.1.130/27
   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 enabled
   IP CEF switching is enabled
   IP CEF switching turbo vector
   IP Null turbo vector
   IP multicast fast switching is enabled
   IP multicast distributed fast switching is disabled
   IP route-cache flags are Fast, CEF
   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
   BGP Policy Mapping is disabled
   WCCP Redirect outbound is disabled
   WCCP Redirect inbound is disabled
   WCCP Redirect exclude is disabled
 FastEthernet0/1 is up, line protocol is up
   Internet address is 10.1.4.10/30
   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
   Multicast reserved groups joined: 224.0.0.1 224.0.0.2 224.0.0.22
224.0.0.13
        224.0.0.10
   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 enabled
```

```
   IP CEF switching is enabled
   IP CEF switching turbo vector
   IP Null turbo vector
   IP multicast fast switching is enabled
   IP multicast distributed fast switching is disabled
   IP route-cache flags are Fast, CEF
   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
   BGP Policy Mapping is disabled
   WCCP Redirect outbound is disabled
   WCCP Redirect inbound is disabled
   WCCP Redirect exclude is disabled
FastEthernet0/2 is administratively down, line protocol is down
   Inbound  access list is not set
FastEthernet0/3 is down, line protocol is down
   Inbound  access list is not set
FastEthernet0/4 is administratively down, line protocol is down
   Inbound  access list is not set
FastEthernet0/5 is administratively down, line protocol is down
   Inbound  access list is not set
FastEthernet0/6 is administratively down, line protocol is down
   Inbound  access list is not set
FastEthernet0/7 is administratively down, line protocol is down
   Inbound  access list is not set
FastEthernet0/8 is administratively down, line protocol is down
   Inbound  access list is not set
FastEthernet0/9 is administratively down, line protocol is down
   Inbound  access list is not set
FastEthernet0/10 is administratively down, line protocol is down
   Inbound  access list is not set
FastEthernet0/11 is administratively down, line protocol is down
   Inbound  access list is not set
FastEthernet0/12 is administratively down, line protocol is down
   Inbound  access list is not set
FastEthernet0/13 is administratively down, line protocol is down
   Inbound  access list is not set
FastEthernet0/14 is administratively down, line protocol is down
   Inbound  access list is not set
FastEthernet0/15 is down, line protocol is down
   Inbound  access list is not set
FastEthernet0/16 is up, line protocol is up
   Inbound  access list is not set
FastEthernet0/17 is up, line protocol is up
   Inbound  access list is not set
FastEthernet0/18 is up, line protocol is up
   Inbound  access list is not set
FastEthernet0/19 is up, line protocol is up
   Inbound  access list is not set
```

```
FastEthernet0/20 is up, line protocol is up
  Inbound  access list is not set
FastEthernet0/21 is up, line protocol is up
  Inbound  access list is not set
FastEthernet0/22 is up, line protocol is up
  Internet protocol processing disabled
FastEthernet0/23 is up, line protocol is up
  Internet protocol processing disabled
FastEthernet0/24 is up, line protocol is up
  Internet protocol processing disabled
GigabitEthernet0/1 is administratively down, line protocol is down
  Inbound  access list is not set
GigabitEthernet0/2 is administratively down, line protocol is down
  Inbound  access list is not set
Port-channel12 is up, line protocol is up
  Internet address is 10.2.4.14/30
  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
  Multicast reserved groups joined: 224.0.0.1 224.0.0.2 224.0.0.22
224.0.0.13
      224.0.0.10
  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 enabled
  IP CEF switching is enabled
  IP CEF switching turbo vector
  IP Null turbo vector
  IP multicast fast switching is enabled
  IP multicast distributed fast switching is disabled
  IP route-cache flags are Fast, CEF
  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
  BGP Policy Mapping is disabled
  WCCP Redirect outbound is disabled
  WCCP Redirect inbound is disabled
  WCCP Redirect exclude is disabled
Port-channel23 is up, line protocol is up
Port-channel24 is up, line protocol is up
```

```
Tunnel67 is up, line protocol is up
  Internet protocol processing disabled
DSW2#
```

```
DSW2#show ip cef
Prefix                Next Hop            Interface
0.0.0.0/0             10.1.4.9            FastEthernet0/1
0.0.0.0/32            receive
10.1.1.8/30           10.1.4.9            FastEthernet0/1
10.1.4.4/30           10.2.1.1            Vlan10
                      10.2.2.2            Vlan20
10.1.4.8/30           attached            FastEthernet0/1
10.1.4.8/32           receive             FastEthernet0/1
10.1.4.9/32           attached            FastEthernet0/1
10.1.4.10/32          receive             FastEthernet0/1
10.1.4.11/32          receive             FastEthernet0/1
10.2.1.0/24           attached            Vlan10
10.2.1.0/32           receive             Vlan10
10.2.1.1/32           attached            Vlan10
10.2.1.2/32           receive             Vlan10
10.2.1.4/32           attached            Vlan10
10.2.1.254/32         attached            Vlan10
10.2.1.255/32         receive             Vlan10
10.2.2.0/24           attached            Vlan20
10.2.2.0/32           receive             Vlan20
10.2.2.1/32           receive             Vlan20
10.2.2.2/32           attached            Vlan20
10.2.2.255/32         receive             Vlan20
10.2.4.12/30          attached            Port-channel12
10.2.4.12/32          receive             Port-channel12
10.2.4.13/32          attached            Port-channel12
10.2.4.14/32          receive             Port-channel12
10.2.4.15/32          receive             Port-channel12
192.168.1.128/27      attached            Vlan200
192.168.1.128/32      receive             Vlan200
192.168.1.130/32      receive             Vlan200
192.168.1.159/32      receive             Vlan200
224.0.0.0/4           multicast
224.0.0.0/24          receive
240.0.0.0/4           drop
255.255.255.255/32    receive
DSW2#
```

```
DSW2#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 data packets (0 bytes) fastretransmitted
       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
DSW2#
```

```
DSW2#show ip protocols
*** IP Routing is NSF aware ***

Routing Protocol is "eigrp 10"
  Outgoing update filter list for all interfaces is not set
  Incoming update filter list for all interfaces is not set
  Default networks flagged in outgoing updates
  Default networks accepted from incoming updates
  Redistributing: eigrp 10

Address Family Protocol EIGRP-IPv4:(10)
  EIGRP metric weight K1=1, K2=0, K3=1, K4=0, K5=0
  EIGRP maximum hopcount 100
  EIGRP maximum metric variance 1
  EIGRP NSF-aware route hold timer is 240
  Topologies : 0(base)

  Automatic network summarization is not in effect
  Maximum path: 4
  Routing for Networks:
    10.1.4.10/32
    10.2.1.2/32
    10.2.2.1/32
    10.2.4.14/32
  Routing Information Sources:
    Gateway          Distance        Last Update
    10.2.4.13             90         01:03:51
    10.1.4.9              90         01:03:51
    10.2.1.1              90         01:03:51
    10.2.2.2              90         01:03:51
  Distance: internal 90 external 170

DSW2#
```

```
DSW2#show access-lists
Standard IP access list DENY_10
    10 deny    10.0.0.0, wildcard bits 0.255.255.255
    20 permit any
Standard IP access list DENY_ALL
    10 deny    any
Standard IP access list PERMIT_10
    10 permit 10.0.0.0, wildcard bits 0.255.255.255
Standard IP access list PERMIT_ALL
    10 permit any
DSW2#
```

```
DSW2#show ip route eigrp
     10.0.0.0/8 is variably subnetted, 6 subnets, 2 masks
D EX    10.1.1.8/30 [170/261120] via 10.1.4.9, 01:04:20, FastEthernet0/1
D       10.1.4.4/30 [90/28416] via 10.2.2.2, 01:09:00, Vlan20
                     [90/28416] via 10.2.1.1, 01:09:00, Vlan10
D*EX 0.0.0.0/0 [170/261120] via 10.1.4.9, 01:04:05, FastEthernet0/1
DSW2#
```

```
DSW2#show ip eigrp neighbors
EIGRP-IPv4:(10) neighbors for process 10
H   Address                 Interface       Hold Uptime    SRTT   RTO  Q
Seq
                                            (sec)          (ms)        Cnt
Num
3   10.2.1.1                Vl10             14 01:09:12    1    200  0
96
```

```
2   10.2.2.2                 Vl20                 14 01:09:13   36   216   0
95
1   10.1.4.9                 Fa0/1                10 01:09:45    1   200   0
46
0   10.2.4.13                Po12                 10 01:09:53    1   200   0
97
DSW2#
```

```
DSW2#show ip eigrp interfaces
EIGRP-IPv4:(10) interfaces for process 10

                      Xmit Queue   Mean   Pacing Time   Multicast
Pending
Interface    Peers   Un/Reliable   SRTT   Un/Reliable   Flow Timer
Routes
Fa0/1          1        0/0          1       0/1           50
0
Vl10           1        0/0          1       0/1           50
0
Vl20           1        0/0         36       0/1          180
0
Po12           1        0/0          1       0/1           50
0
DSW2#
```

```
DSW2#show vlan

VLAN Name                             Status    Ports
---- -------------------------------- --------- --------------------------
------
1    default                          active    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, Gi0/1,
Gi0/2
10   VLAN0010                         active
20   VLAN0020                         active
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
------- --------- ---------------- ------------------------------------
-----

DSW2#
```

```
DSW2#show spanning-tree

VLAN0010
  Spanning tree enabled protocol ieee
  Root ID    Priority    4106
             Address     000d.bde3.6e00
             Cost        18
             Port        66 (Port-channel23)
             Hello Time   2 sec  Max Age 20 sec  Forward Delay 15 sec

   Bridge ID  Priority    8202   (priority 8192 sys-id-ext 10)
             Address     000b.fd20.ba00
             Hello Time   2 sec  Max Age 20 sec  Forward Delay 15 sec
             Aging Time 300

Interface           Role Sts Cost      Prio.Nbr Type
------------------- ---- --- --------- -------- -------------------------
-------
Po23                Root FWD 9         128.66   P2p


VLAN0020
  Spanning tree enabled protocol ieee
  Root ID    Priority    4116
             Address     000b.fd20.ba00
             This bridge is the root
             Hello Time   2 sec  Max Age 20 sec  Forward Delay 15 sec

   Bridge ID  Priority    4116   (priority 4096 sys-id-ext 20)
             Address     000b.fd20.ba00
             Hello Time   2 sec  Max Age 20 sec  Forward Delay 15 sec
             Aging Time 300

Interface           Role Sts Cost      Prio.Nbr Type
------------------- ---- --- --------- -------- -------------------------
-------
Po24                Desg FWD 9         128.67   P2p


VLAN0200
  Spanning tree enabled protocol ieee
  Root ID    Priority    4296
             Address     000d.bde3.6e00
             Cost        18
             Port        66 (Port-channel23)
```

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

  Bridge ID  Priority     8392    (priority 8192 sys-id-ext 200)
             Address       000b.fd20.ba00
             Hello Time    2 sec  Max Age 20 sec  Forward Delay 15 sec
             Aging Time 300

Interface           Role Sts Cost      Prio.Nbr Type
------------------- ---- --- --------- -------- ------------------------
-------
Po23                Root FWD 9         128.66   P2p
Po24                Altn BLK 9         128.67   P2p

DSW2#
```

```
DSW2#show interfaces status

Port        Name                Status       Vlan      Duplex  Speed Type
Fa0/1                           connected    routed    a-full  a-100
10/100BaseTX
Fa0/2                           disabled     1          auto   auto
10/100BaseTX
Fa0/3                           notconnect   1          auto   auto
10/100BaseTX
Fa0/4                           disabled     1          auto   auto
10/100BaseTX
Fa0/5                           disabled     1          auto   auto
10/100BaseTX
Fa0/6                           disabled     1          auto   auto
10/100BaseTX
Fa0/7                           disabled     1          auto   auto
10/100BaseTX
Fa0/8                           disabled     1          auto   auto
10/100BaseTX
Fa0/9                           disabled     1          auto   auto
10/100BaseTX
Fa0/10                          disabled     1          auto   auto
10/100BaseTX
Fa0/11                          disabled     1          auto   auto
10/100BaseTX
Fa0/12                          disabled     1          auto   auto
10/100BaseTX
Fa0/13                          disabled     1          auto   auto
10/100BaseTX
Fa0/14                          disabled     1          auto   auto
10/100BaseTX
Fa0/15                          notconnect   1          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                          connected    routed     a-full  a-100
10/100BaseTX
Fa0/23                          connected    routed     a-full  a-100
10/100BaseTX
Fa0/24                          connected    routed     a-full  a-100
10/100BaseTX
Gi0/1                           disabled     1           auto   auto
unknown
Gi0/2                           disabled     1           auto   auto
unknown
Po12                            connected    routed     a-full  a-100
Po23                            connected    trunk      a-full  a-100
Po24                            connected    trunk      a-full  a-100
DSW2#
```

```
DSW2#show interfaces switchport

Name: Fa0/2
Switchport: Enabled
Administrative Mode: static access
Operational Mode: down
Administrative Trunking Encapsulation: negotiate
Negotiation of Trunking: Off
Access Mode VLAN: 1 (default)
Trunking Native Mode VLAN: 1 (default)
Administrative Native VLAN tagging: enabled
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 Native VLAN tagging: enabled
Administrative private-vlan trunk encapsulation: dot1q
Administrative private-vlan trunk normal VLANs: none
Administrative private-vlan trunk associations: none
Administrative private-vlan trunk mappings: none
Operational private-vlan: none
Trunking VLANs Enabled: ALL
Pruning VLANs Enabled: 2-1001
Capture Mode Disabled
Capture VLANs Allowed: ALL

Protected: false
Unknown unicast blocked: disabled
Unknown multicast blocked: disabled
Appliance trust: none

Name: Fa0/3
Switchport: Enabled
Administrative Mode: static access
Operational Mode: down
Administrative Trunking Encapsulation: negotiate
Negotiation of Trunking: Off
Access Mode VLAN: 1 (default)
Trunking Native Mode VLAN: 1 (default)
Administrative Native VLAN tagging: enabled
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 Native VLAN tagging: enabled
Administrative private-vlan trunk encapsulation: dot1q
Administrative private-vlan trunk normal VLANs: none
Administrative private-vlan trunk associations: none
Administrative private-vlan trunk mappings: none
Operational private-vlan: none
Trunking VLANs Enabled: ALL
Pruning VLANs Enabled: 2-1001
Capture Mode Disabled
Capture VLANs Allowed: ALL

Protected: false
Unknown unicast blocked: disabled
Unknown multicast blocked: disabled
Appliance trust: none

Name: Fa0/4
Switchport: Enabled
Administrative Mode: static access
Operational Mode: down
Administrative Trunking Encapsulation: negotiate
Negotiation of Trunking: Off
Access Mode VLAN: 1 (default)
Trunking Native Mode VLAN: 1 (default)
Administrative Native VLAN tagging: enabled
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 Native VLAN tagging: enabled
Administrative private-vlan trunk encapsulation: dot1q
Administrative private-vlan trunk normal VLANs: none
Administrative private-vlan trunk associations: none
Administrative private-vlan trunk mappings: none
Operational private-vlan: none
Trunking VLANs Enabled: ALL
Pruning VLANs Enabled: 2-1001
Capture Mode Disabled
Capture VLANs Allowed: ALL

Protected: false
Unknown unicast blocked: disabled
Unknown multicast blocked: disabled
Appliance trust: none

Name: Fa0/5
Switchport: Enabled
Administrative Mode: static access
Operational Mode: down
Administrative Trunking Encapsulation: negotiate
Negotiation of Trunking: Off
```

```
Access Mode VLAN: 1 (default)
Trunking Native Mode VLAN: 1 (default)
Administrative Native VLAN tagging: enabled
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 Native VLAN tagging: enabled
Administrative private-vlan trunk encapsulation: dot1q
Administrative private-vlan trunk normal VLANs: none
Administrative private-vlan trunk associations: none
Administrative private-vlan trunk mappings: none
Operational private-vlan: none
Trunking VLANs Enabled: ALL
Pruning VLANs Enabled: 2-1001
Capture Mode Disabled
Capture VLANs Allowed: ALL

Protected: false
Unknown unicast blocked: disabled
Unknown multicast blocked: disabled
Appliance trust: none

Name: Fa0/6
Switchport: Enabled
Administrative Mode: static access
Operational Mode: down
Administrative Trunking Encapsulation: negotiate
Negotiation of Trunking: Off
Access Mode VLAN: 1 (default)
Trunking Native Mode VLAN: 1 (default)
Administrative Native VLAN tagging: enabled
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 Native VLAN tagging: enabled
Administrative private-vlan trunk encapsulation: dot1q
Administrative private-vlan trunk normal VLANs: none
Administrative private-vlan trunk associations: none
Administrative private-vlan trunk mappings: none
Operational private-vlan: none
Trunking VLANs Enabled: ALL
Pruning VLANs Enabled: 2-1001
Capture Mode Disabled
Capture VLANs Allowed: ALL

Protected: false
Unknown unicast blocked: disabled
Unknown multicast blocked: disabled
Appliance trust: none

Name: Fa0/7
Switchport: Enabled
```

```
Administrative Mode: static access
Operational Mode: down
Administrative Trunking Encapsulation: negotiate
Negotiation of Trunking: Off
Access Mode VLAN: 1 (default)
Trunking Native Mode VLAN: 1 (default)
Administrative Native VLAN tagging: enabled
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 Native VLAN tagging: enabled
Administrative private-vlan trunk encapsulation: dot1q
Administrative private-vlan trunk normal VLANs: none
Administrative private-vlan trunk associations: none
Administrative private-vlan trunk mappings: none
Operational private-vlan: none
Trunking VLANs Enabled: ALL
Pruning VLANs Enabled: 2-1001
Capture Mode Disabled
Capture VLANs Allowed: ALL

Protected: false
Unknown unicast blocked: disabled
Unknown multicast blocked: disabled
Appliance trust: none

Name: Fa0/8
Switchport: Enabled
Administrative Mode: static access
Operational Mode: down
Administrative Trunking Encapsulation: negotiate
Negotiation of Trunking: Off
Access Mode VLAN: 1 (default)
Trunking Native Mode VLAN: 1 (default)
Administrative Native VLAN tagging: enabled
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 Native VLAN tagging: enabled
Administrative private-vlan trunk encapsulation: dot1q
Administrative private-vlan trunk normal VLANs: none
Administrative private-vlan trunk associations: none
Administrative private-vlan trunk mappings: none
Operational private-vlan: none
Trunking VLANs Enabled: ALL
Pruning VLANs Enabled: 2-1001
Capture Mode Disabled
Capture VLANs Allowed: ALL

Protected: false
Unknown unicast blocked: disabled
Unknown multicast blocked: disabled
```

```
Appliance trust: none

Name: Fa0/9
Switchport: Enabled
Administrative Mode: static access
Operational Mode: down
Administrative Trunking Encapsulation: negotiate
Negotiation of Trunking: Off
Access Mode VLAN: 1 (default)
Trunking Native Mode VLAN: 1 (default)
Administrative Native VLAN tagging: enabled
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 Native VLAN tagging: enabled
Administrative private-vlan trunk encapsulation: dot1q
Administrative private-vlan trunk normal VLANs: none
Administrative private-vlan trunk associations: none
Administrative private-vlan trunk mappings: none
Operational private-vlan: none
Trunking VLANs Enabled: ALL
Pruning VLANs Enabled: 2-1001
Capture Mode Disabled
Capture VLANs Allowed: ALL

Protected: false
Unknown unicast blocked: disabled
Unknown multicast blocked: disabled
Appliance trust: none

Name: Fa0/10
Switchport: Enabled
Administrative Mode: static access
Operational Mode: down
Administrative Trunking Encapsulation: negotiate
Negotiation of Trunking: Off
Access Mode VLAN: 1 (default)
Trunking Native Mode VLAN: 1 (default)
Administrative Native VLAN tagging: enabled
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 Native VLAN tagging: enabled
Administrative private-vlan trunk encapsulation: dot1q
Administrative private-vlan trunk normal VLANs: none
Administrative private-vlan trunk associations: none
Administrative private-vlan trunk mappings: none
Operational private-vlan: none
Trunking VLANs Enabled: ALL
Pruning VLANs Enabled: 2-1001
Capture Mode Disabled
Capture VLANs Allowed: ALL
```

Protected: false
Unknown unicast blocked: disabled
Unknown multicast blocked: disabled
Appliance trust: none

Name: Fa0/11
Switchport: Enabled
Administrative Mode: static access
Operational Mode: down
Administrative Trunking Encapsulation: negotiate
Negotiation of Trunking: Off
Access Mode VLAN: 1 (default)
Trunking Native Mode VLAN: 1 (default)
Administrative Native VLAN tagging: enabled
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 Native VLAN tagging: enabled
Administrative private-vlan trunk encapsulation: dot1q
Administrative private-vlan trunk normal VLANs: none
Administrative private-vlan trunk associations: none
Administrative private-vlan trunk mappings: none
Operational private-vlan: none
Trunking VLANs Enabled: ALL
Pruning VLANs Enabled: 2-1001
Capture Mode Disabled
Capture VLANs Allowed: ALL

Protected: false
Unknown unicast blocked: disabled
Unknown multicast blocked: disabled
Appliance trust: none

Name: Fa0/12
Switchport: Enabled
Administrative Mode: static access
Operational Mode: down
Administrative Trunking Encapsulation: negotiate
Negotiation of Trunking: Off
Access Mode VLAN: 1 (default)
Trunking Native Mode VLAN: 1 (default)
Administrative Native VLAN tagging: enabled
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 Native VLAN tagging: enabled
Administrative private-vlan trunk encapsulation: dot1q
Administrative private-vlan trunk normal VLANs: none
Administrative private-vlan trunk associations: none
Administrative private-vlan trunk mappings: none
Operational private-vlan: none

```
Trunking VLANs Enabled: ALL
Pruning VLANs Enabled: 2-1001
Capture Mode Disabled
Capture VLANs Allowed: ALL

Protected: false
Unknown unicast blocked: disabled
Unknown multicast blocked: disabled
Appliance trust: none

Name: Fa0/13
Switchport: Enabled
Administrative Mode: static access
Operational Mode: down
Administrative Trunking Encapsulation: negotiate
Negotiation of Trunking: Off
Access Mode VLAN: 1 (default)
Trunking Native Mode VLAN: 1 (default)
Administrative Native VLAN tagging: enabled
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 Native VLAN tagging: enabled
Administrative private-vlan trunk encapsulation: dot1q
Administrative private-vlan trunk normal VLANs: none
Administrative private-vlan trunk associations: none
Administrative private-vlan trunk mappings: none
Operational private-vlan: none
Trunking VLANs Enabled: ALL
Pruning VLANs Enabled: 2-1001
Capture Mode Disabled
Capture VLANs Allowed: ALL

Protected: false
Unknown unicast blocked: disabled
Unknown multicast blocked: disabled
Appliance trust: none

Name: Fa0/14
Switchport: Enabled
Administrative Mode: static access
Operational Mode: down
Administrative Trunking Encapsulation: negotiate
Negotiation of Trunking: Off
Access Mode VLAN: 1 (default)
Trunking Native Mode VLAN: 1 (default)
Administrative Native VLAN tagging: enabled
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 Native VLAN tagging: enabled
Administrative private-vlan trunk encapsulation: dot1q
```

```
Administrative private-vlan trunk normal VLANs: none
Administrative private-vlan trunk associations: none
Administrative private-vlan trunk mappings: none
Operational private-vlan: none
Trunking VLANs Enabled: ALL
Pruning VLANs Enabled: 2-1001
Capture Mode Disabled
Capture VLANs Allowed: ALL

Protected: false
Unknown unicast blocked: disabled
Unknown multicast blocked: disabled
Appliance trust: none

Name: Fa0/15
Switchport: Enabled
Administrative Mode: static access
Operational Mode: down
Administrative Trunking Encapsulation: negotiate
Negotiation of Trunking: Off
Access Mode VLAN: 1 (default)
Trunking Native Mode VLAN: 1 (default)
Administrative Native VLAN tagging: enabled
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 Native VLAN tagging: enabled
Administrative private-vlan trunk encapsulation: dot1q
Administrative private-vlan trunk normal VLANs: none
Administrative private-vlan trunk associations: none
Administrative private-vlan trunk mappings: none
Operational private-vlan: none
Trunking VLANs Enabled: ALL
Pruning VLANs Enabled: 2-1001
Capture Mode Disabled
Capture VLANs Allowed: ALL

Protected: false
Unknown unicast blocked: disabled
Unknown multicast blocked: disabled
Appliance trust: none

Name: Fa0/16
Switchport: Enabled
Administrative Mode: trunk
Operational Mode: trunk (member of bundle Po24)
Administrative Trunking Encapsulation: dot1q
Operational Trunking Encapsulation: dot1q
Negotiation of Trunking: On
Access Mode VLAN: 1 (default)
Trunking Native Mode VLAN: 1 (default)
Administrative Native VLAN tagging: enabled
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 Native VLAN tagging: enabled
Administrative private-vlan trunk encapsulation: dot1q
Administrative private-vlan trunk normal VLANs: none
Administrative private-vlan trunk associations: none
Administrative private-vlan trunk mappings: none
Operational private-vlan: none
Trunking VLANs Enabled: 20,200
Pruning VLANs Enabled: 2-1001
Capture Mode Disabled
Capture VLANs Allowed: ALL

Protected: false
Unknown unicast blocked: disabled
Unknown multicast blocked: disabled
Appliance trust: none


Name: Fa0/17
Switchport: Enabled
Administrative Mode: trunk
Operational Mode: trunk (member of bundle Po24)
Administrative Trunking Encapsulation: dot1q
Operational Trunking Encapsulation: dot1q
Negotiation of Trunking: On
Access Mode VLAN: 1 (default)
Trunking Native Mode VLAN: 1 (default)
Administrative Native VLAN tagging: enabled
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 Native VLAN tagging: enabled
Administrative private-vlan trunk encapsulation: dot1q
Administrative private-vlan trunk normal VLANs: none
Administrative private-vlan trunk associations: none
Administrative private-vlan trunk mappings: none
Operational private-vlan: none
Trunking VLANs Enabled: 20,200
Pruning VLANs Enabled: 2-1001
Capture Mode Disabled
Capture VLANs Allowed: ALL

Protected: false
Unknown unicast blocked: disabled
Unknown multicast blocked: disabled
Appliance trust: none


Name: Fa0/18
Switchport: Enabled
Administrative Mode: trunk
Operational Mode: trunk (member of bundle Po24)
Administrative Trunking Encapsulation: dot1q
```

```
Operational Trunking Encapsulation: dot1q
Negotiation of Trunking: On
Access Mode VLAN: 1 (default)
Trunking Native Mode VLAN: 1 (default)
Administrative Native VLAN tagging: enabled
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 Native VLAN tagging: enabled
Administrative private-vlan trunk encapsulation: dot1q
Administrative private-vlan trunk normal VLANs: none
Administrative private-vlan trunk associations: none
Administrative private-vlan trunk mappings: none
Operational private-vlan: none
Trunking VLANs Enabled: 20,200
Pruning VLANs Enabled: 2-1001
Capture Mode Disabled
Capture VLANs Allowed: ALL

Protected: false
Unknown unicast blocked: disabled
Unknown multicast blocked: disabled
Appliance trust: none

Name: Fa0/19
Switchport: Enabled
Administrative Mode: trunk
Operational Mode: trunk (member of bundle Po23)
Administrative Trunking Encapsulation: dot1q
Operational Trunking Encapsulation: dot1q
Negotiation of Trunking: On
Access Mode VLAN: 1 (default)
Trunking Native Mode VLAN: 1 (default)
Administrative Native VLAN tagging: enabled
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 Native VLAN tagging: enabled
Administrative private-vlan trunk encapsulation: dot1q
Administrative private-vlan trunk normal VLANs: none
Administrative private-vlan trunk associations: none
Administrative private-vlan trunk mappings: none
Operational private-vlan: none
Trunking VLANs Enabled: 10,200
Pruning VLANs Enabled: 2-1001
Capture Mode Disabled
Capture VLANs Allowed: ALL

Protected: false
Unknown unicast blocked: disabled
Unknown multicast blocked: disabled
Appliance trust: none
```

```
Name: Fa0/20
Switchport: Enabled
Administrative Mode: trunk
Operational Mode: trunk (member of bundle Po23)
Administrative Trunking Encapsulation: dot1q
Operational Trunking Encapsulation: dot1q
Negotiation of Trunking: On
Access Mode VLAN: 1 (default)
Trunking Native Mode VLAN: 1 (default)
Administrative Native VLAN tagging: enabled
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 Native VLAN tagging: enabled
Administrative private-vlan trunk encapsulation: dot1q
Administrative private-vlan trunk normal VLANs: none
Administrative private-vlan trunk associations: none
Administrative private-vlan trunk mappings: none
Operational private-vlan: none
Trunking VLANs Enabled: 10,200
Pruning VLANs Enabled: 2-1001
Capture Mode Disabled
Capture VLANs Allowed: ALL

Protected: false
Unknown unicast blocked: disabled
Unknown multicast blocked: disabled
Appliance trust: none

Name: Fa0/21
Switchport: Enabled
Administrative Mode: trunk
Operational Mode: trunk (member of bundle Po23)
Administrative Trunking Encapsulation: dot1q
Operational Trunking Encapsulation: dot1q
Negotiation of Trunking: On
Access Mode VLAN: 1 (default)
Trunking Native Mode VLAN: 1 (default)
Administrative Native VLAN tagging: enabled
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 Native VLAN tagging: enabled
Administrative private-vlan trunk encapsulation: dot1q
Administrative private-vlan trunk normal VLANs: none
Administrative private-vlan trunk associations: none
Administrative private-vlan trunk mappings: none
Operational private-vlan: none
Trunking VLANs Enabled: 10,200
Pruning VLANs Enabled: 2-1001
Capture Mode Disabled
```

```
Capture VLANs Allowed: ALL

Protected: false
Unknown unicast blocked: disabled
Unknown multicast blocked: disabled
Appliance trust: none

Name: Gi0/1
Switchport: Enabled
Administrative Mode: dynamic desirable
Operational Mode: down
Administrative Trunking Encapsulation: negotiate
Negotiation of Trunking: On
Access Mode VLAN: 1 (default)
Trunking Native Mode VLAN: 1 (default)
Administrative Native VLAN tagging: enabled
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 Native VLAN tagging: enabled
Administrative private-vlan trunk encapsulation: dot1q
Administrative private-vlan trunk normal VLANs: none
Administrative private-vlan trunk associations: none
Administrative private-vlan trunk mappings: none
Operational private-vlan: none
Trunking VLANs Enabled: ALL
Pruning VLANs Enabled: 2-1001
Capture Mode Disabled
Capture VLANs Allowed: ALL

Protected: false
Unknown unicast blocked: disabled
Unknown multicast blocked: disabled
Appliance trust: none

Name: Gi0/2
Switchport: Enabled
Administrative Mode: dynamic desirable
Operational Mode: down
Administrative Trunking Encapsulation: negotiate
Negotiation of Trunking: On
Access Mode VLAN: 1 (default)
Trunking Native Mode VLAN: 1 (default)
Administrative Native VLAN tagging: enabled
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 Native VLAN tagging: enabled
Administrative private-vlan trunk encapsulation: dot1q
Administrative private-vlan trunk normal VLANs: none
Administrative private-vlan trunk associations: none
Administrative private-vlan trunk mappings: none
```

```
Operational private-vlan: none
Trunking VLANs Enabled: ALL
Pruning VLANs Enabled: 2-1001
Capture Mode Disabled
Capture VLANs Allowed: ALL

Protected: false
Unknown unicast blocked: disabled
Unknown multicast blocked: disabled
Appliance trust: none

Name: Po23
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)
Administrative Native VLAN tagging: enabled
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 Native VLAN tagging: enabled
Administrative private-vlan trunk encapsulation: dot1q
Administrative private-vlan trunk normal VLANs: none
Administrative private-vlan trunk associations: none
Administrative private-vlan trunk mappings: none
Operational private-vlan: none
Trunking VLANs Enabled: 10,200
Pruning VLANs Enabled: 2-1001

Protected: false
Unknown unicast blocked: disabled
Unknown multicast blocked: disabled
Appliance trust: none

Name: Po24
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)
Administrative Native VLAN tagging: enabled
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 Native VLAN tagging: enabled
```

```
Administrative private-vlan trunk encapsulation: dot1q
Administrative private-vlan trunk normal VLANs: none
Administrative private-vlan trunk associations: none
Administrative private-vlan trunk mappings: none
Operational private-vlan: none
Trunking VLANs Enabled: 20,200
Pruning VLANs Enabled: 2-1001

Protected: false
Unknown unicast blocked: disabled
Unknown multicast blocked: disabled
Appliance trust: none
DSW2#
```

```
DSW2#show interfaces trunk

Port          Mode              Encapsulation  Status       Native vlan
Po23          on                802.1q         trunking     1
Po24          on                802.1q         trunking     1

Port          Vlans allowed on trunk
Po23          10,200
Po24          20,200

Port          Vlans allowed and active in management domain
Po23          10,200
Po24          20,200

Port          Vlans in spanning tree forwarding state and not pruned
Po23          10,200
Po24          20
DSW2#
```

```
DSW2#show vtp status
VTP Version                    : running VTP2
Configuration Revision         : 0
Maximum VLANs supported locally : 1005
Number of existing VLANs       : 8
VTP Operating Mode             : Transparent
VTP Domain Name                : netlearning
VTP Pruning Mode               : Disabled
VTP V2 Mode                    : Enabled
VTP Traps Generation           : Disabled
MD5 digest                     : 0x99 0xF7 0xCE 0x74 0x55 0xA6 0x6A 0xC7
Configuration last modified by 0.0.0.0 at 0-0-00 00:00:00
DSW2#
```

```
DSW2#show vtp password
VTP Password: cisco1
DSW2#
```

```
DSW2#show etherchannel detail
              Channel-group listing:
              ----------------------

Group: 12
----------
Group state = L3
Ports: 3    Maxports = 8
Port-channels: 1 Max Port-channels = 1
Protocol:     -
Minimum Links: 0
              Ports in the group:
              -------------------
Port: Fa0/22
------------

Port state     = Up Mstr In-Bndl
Channel group = 12             Mode = On              Gcchange = -
```

```
Port-channel  = Po12          GC   =   -              Pseudo port-channel =
Po12
Port index    = 0             Load = 0x00             Protocol =    -

Age of the port in the current state: 0d:01h:11m:31s

Port: Fa0/23
------------

Port state    = Up Mstr In-Bndl
Channel group = 12            Mode = On               Gcchange = -
Port-channel  = Po12          GC   =   -              Pseudo port-channel =
Po12
Port index    = 0             Load = 0x00             Protocol =    -

Age of the port in the current state: 0d:01h:11m:31s

Port: Fa0/24
------------

Port state    = Up Mstr In-Bndl
Channel group = 12            Mode = On               Gcchange = -
Port-channel  = Po12          GC   =   -              Pseudo port-channel =
Po12
Port index    = 0             Load = 0x00             Protocol =    -

Age of the port in the current state: 0d:01h:11m:31s

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

Port-channel: Po12
------------

Age of the Port-channel   = 0d:01h:11m:39s
Logical slot/port   = 1/0          Number of ports = 3
GC                  = 0x00000000     HotStandBy port = null
Passive port list   = Fa0/22 Fa0/23 Fa0/24
Port state          = Port-channel L3-Ag Ag-Inuse
Protocol            =    -
Port security       = Disabled

Ports in the Port-channel:

Index   Load   Port     EC state         No of bits
------+-----+-----+----------------+----------
  0     00    Fa0/22   On                   0
  0     00    Fa0/23   On                   0
  0     00    Fa0/24   On                   0

Time since last port bundled:    0d:01h:11m:32s    Fa0/24
Time since last port Un-bundled: 0d:01h:11m:33s    Fa0/24


Group: 23
```

```
----------
Group state = L2
Ports: 3   Maxports = 16
Port-channels: 1 Max Port-channels = 1
Protocol:   LACP
Minimum Links: 0
                  Ports in the group:
                  -------------------
Port: Fa0/19
------------

Port state    = Up Mstr Assoc In-Bndl
Channel group = 23          Mode = Active        Gcchange = -
Port-channel = Po23         GC   =   -           Pseudo port-channel =
Po23
Port index    = 0           Load = 0x00          Protocol =   LACP

Flags:  S - Device is sending Slow LACPDUs   F - Device is sending fast
LACPDUs.
        A - Device is in active mode.        P - Device is in passive
mode.

Local information:
                             LACP port      Admin      Oper      Port
Port
Port          Flags   State     Priority     Key        Key       Number
State
Fa0/19    SA       bndl      32768        0x17       0x17      0x10
0x3D

Partner's information:

                    LACP port                    Admin  Oper   Port
Port
Port        Flags   Priority  Dev ID          Age    key    Key    Number
State
Fa0/19    SA       32768     0015.faac.46c0  16s    0x0    0x2    0x10
0x3D

Age of the port in the current state: 0d:01h:11m:26s

Port: Fa0/20
------------

Port state    = Up Mstr Assoc In-Bndl
Channel group = 23          Mode = Active        Gcchange = -
Port-channel = Po23         GC   =   -           Pseudo port-channel =
Po23
Port index    = 0           Load = 0x00          Protocol =   LACP

Flags:  S - Device is sending Slow LACPDUs   F - Device is sending fast
LACPDUs.
        A - Device is in active mode.        P - Device is in passive
mode.
```

```
Local information:
                              LACP port     Admin     Oper     Port
Port
Port       Flags    State    Priority      Key       Key      Number
State
Fa0/20     SA       bndl     32768         0x17      0x17     0x11
0x3D

Partner's information:

                    LACP port                        Admin  Oper   Port
Port
Port       Flags    Priority  Dev ID          Age    key    Key    Number
State
Fa0/20     SA       32768     0015.faac.46c0  27s    0x0    0x2    0x11
0x3D

Age of the port in the current state: 0d:01h:11m:27s

Port: Fa0/21
------------

Port state     = Up Mstr Assoc In-Bndl
Channel group = 23           Mode = Active        Gcchange = -
Port-channel = Po23          GC   =   -           Pseudo port-channel =
Po23
Port index    = 0            Load = 0x00          Protocol =   LACP

Flags:  S - Device is sending Slow LACPDUs   F - Device is sending fast
LACPDUs.
        A - Device is in active mode.        P - Device is in passive
mode.

Local information:
                              LACP port     Admin     Oper     Port
Port
Port       Flags    State    Priority      Key       Key      Number
State
Fa0/21     SA       bndl     32768         0x17      0x17     0x12
0x3D

Partner's information:

                    LACP port                        Admin  Oper   Port
Port
Port       Flags    Priority  Dev ID          Age    key    Key    Number
State
Fa0/21     SA       32768     0015.faac.46c0  18s    0x0    0x2    0x12
0x3D

Age of the port in the current state: 0d:01h:11m:28s

                    Port-channels in the group:
```

```
                  -------------------------

Port-channel: Po23    (Primary Aggregator)

------------

Age of the Port-channel    = 0d:01h:11m:43s
Logical slot/port   = 1/1              Number of ports = 3
HotStandBy port = null
Port state              = Port-channel Ag-Inuse
Protocol              =    LACP
Port security         = Disabled

Ports in the Port-channel:

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

Time since last port bundled:     0d:01h:11m:29s     Fa0/21


Group: 24
----------
Group state = L2
Ports: 3    Maxports = 8
Port-channels: 1 Max Port-channels = 1
Protocol:    PAgP
Minimum Links: 0
                Ports in the group:
                -------------------
Port: Fa0/16
------------

Port state      = Up Mstr In-Bndl
Channel group = 24            Mode = Desirable-Sl    Gcchange = 0
Port-channel = Po24           GC   = 0x00180001      Pseudo port-channel =
Po24
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      32

Partner's information:

          Partner                Partner          Partner          Partner
Group
Port      Name                   Device ID        Port      Age  Flags
Cap.
Fa0/16   ASW2                   0015.fab8.2880   Fa0/19    18s SC
10001

Age of the port in the current state: 0d:01h:11m:33s

Port: Fa0/17
------------

Port state     = Up Mstr In-Bndl
Channel group = 24          Mode = Desirable-Sl    Gcchange = 0
Port-channel  = Po24        GC   = 0x00180001      Pseudo port-channel =
Po24
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       32

Partner's information:

          Partner                Partner          Partner          Partner
Group
Port      Name                   Device ID        Port      Age  Flags
Cap.
Fa0/17   ASW2                   0015.fab8.2880   Fa0/20    16s SC
10001

Age of the port in the current state: 0d:01h:11m:34s

Port: Fa0/18
------------
```

```
Port state    = Up Mstr In-Bndl
Channel group = 24          Mode = Desirable-Sl    Gcchange = 0
Port-channel  = Po24        GC   = 0x00180001      Pseudo port-channel =
Po24
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      32

Partner's information:

           Partner               Partner           Partner         Partner
Group
Port      Name                  Device ID        Port       Age Flags
Cap.
Fa0/18    ASW2                  0015.fab8.2880   Fa0/21     24s SC
10001

Age of the port in the current state: 0d:01h:11m:35s

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

Port-channel: Po24
------------

Age of the Port-channel   = 0d:01h:11m:49s
Logical slot/port   = 1/2           Number of ports = 3
GC                  = 0x00180001     HotStandBy port = null
Port state          = Port-channel Ag-Inuse
Protocol            =   PAgP
Port security       = Disabled

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:11m:37s     Fa0/18

DSW2#
```

```
DSW2#show standby
Vlan10 - Group 10
  State is Standby
    1 state change, last state change 01:10:43
  Virtual IP address is 10.2.1.254
  Active virtual MAC address is 0000.0c07.ac0a
    Local virtual MAC address is 0000.0c07.ac0a (v1 default)
  Hello time 3 sec, hold time 10 sec
    Next hello sent in 1.904 secs
  Preemption enabled
  Active router is 10.2.1.1, priority 110 (expires in 8.760 sec)
  Standby router is local
  Priority 20 (configured 20)
  IP redundancy name is "hsrp-Vl10-10" (default)
DSW2#
```

```
DSW2#show standby brief
                   P indicates configured to preempt.
                   |
Interface   Grp Prio P State   Active           Standby         Virtual
IP
Vl10        10  20   P Standby 10.2.1.1         local
10.2.1.254
DSW2#
```

```
DSW2#show power inline
Available:360(w)  Used:0(w)  Remaining:360(w)

Interface Admin  Oper       Power   Device              Class Max
                            (Watts)
--------- ------ ---------- ------- ------------------- ----- ----
Fa0/1     auto   off        0.0     n/a                 n/a   15.4
Fa0/2     auto   off        0.0     n/a                 n/a   15.4
Fa0/3     auto   off        0.0     n/a                 n/a   15.4
Fa0/4     auto   off        0.0     n/a                 n/a   15.4
Fa0/5     auto   off        0.0     n/a                 n/a   15.4
Fa0/6     auto   off        0.0     n/a                 n/a   15.4
Fa0/7     auto   off        0.0     n/a                 n/a   15.4
Fa0/8     auto   off        0.0     n/a                 n/a   15.4
Fa0/9     auto   off        0.0     n/a                 n/a   15.4
Fa0/10    auto   off        0.0     n/a                 n/a   15.4
Fa0/11    auto   off        0.0     n/a                 n/a   15.4
Fa0/12    auto   off        0.0     n/a                 n/a   15.4
Fa0/13    auto   off        0.0     n/a                 n/a   15.4
Fa0/14    auto   off        0.0     n/a                 n/a   15.4
Fa0/15    auto   off        0.0     n/a                 n/a   15.4
Fa0/16    auto   off        0.0     n/a                 n/a   15.4
Fa0/17    auto   off        0.0     n/a                 n/a   15.4
Fa0/18    auto   off        0.0     n/a                 n/a   15.4
Fa0/19    auto   off        0.0     n/a                 n/a   15.4
Fa0/20    auto   off        0.0     n/a                 n/a   15.4
Fa0/21    auto   off        0.0     n/a                 n/a   15.4
Fa0/22    auto   off        0.0     n/a                 n/a   15.4
Fa0/23    auto   off        0.0     n/a                 n/a   15.4
Fa0/24    auto   off        0.0     n/a                 n/a   15.4
DSW2#
```

```
DSW2#
DSW2#show spanning-tree inconsistentports

Name                    Interface                   Inconsistency
-------------------- ----------------------- ------------------

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

DSW2#
```

```
DSW2#show spanning-tree summary
Switch is in pvst mode
Root bridge for: VLAN0020
```

```
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
EtherChannel misconfig guard   is enabled
UplinkFast                     is disabled
BackboneFast                   is disabled
Configured Pathcost method used is short


Name                    Blocking Listening Learning Forwarding STP Active
---------------------- -------- --------- -------- ---------- ----------
VLAN0010                      0        0        0          1          1
VLAN0020                      0        0        0          1          1
VLAN0200                      1        0        0          1          2
---------------------- -------- --------- -------- ---------- ----------
3 vlans                       1        0        0          3          4
DSW2#
```

```
DSW2#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

Interface Gi0/1
```

```
---
Port enable administrative configuration setting: Disabled
Port enable operational state: Disabled
Current bidirectional state: Unknown

Interface Gi0/2
---
Port enable administrative configuration setting: Disabled
Port enable operational state: Disabled
Current bidirectional state: Unknown
DSW2#
```

```
DSW2#show etherchannel summary
Flags:  D - down         P - bundled in port-channel
        I - stand-alone s - suspended
        H - Hot-standby (LACP only)
        R - Layer3       S - Layer2
        U - in use       f - failed to allocate aggregator

        M - not in use, minimum links not met
        u - unsuitable for bundling
        w - waiting to be aggregated
        d - default port


Number of channel-groups in use: 3
Number of aggregators:          3

Group  Port-channel  Protocol    Ports
------+------------+----------+-----------------------------------------
----
12     Po12(RU)         -        Fa0/22(P)   Fa0/23(P)   Fa0/24(P)
23     Po23(SU)        LACP      Fa0/19(P)   Fa0/20(P)   Fa0/21(P)
24     Po24(SU)        PAgP      Fa0/16(P)   Fa0/17(P)   Fa0/18(P)

DSW2#
```

```
DSW2#show etherchannel protocol
               Channel-group listing:
               ----------------------

Group: 12
----------
Protocol:   -   (Mode ON)

Group: 23
----------
Protocol:  LACP

Group: 24
----------
Protocol:  PAgP

DSW2#
```

```
DSW2#show etherchannel port
                Channel-group listing:
                ----------------------

Group: 12
----------
                Ports in the group:
                -------------------
Port: Fa0/22
------------
```

```
Port state    = Up Mstr In-Bndl
Channel group = 12          Mode = On          Gcchange = -
Port-channel  = Po12        GC   =   -         Pseudo port-channel =
Po12
Port index    = 0           Load = 0x00        Protocol =    -

Age of the port in the current state: 0d:01h:12m:50s


Port: Fa0/23
------------

Port state    = Up Mstr In-Bndl
Channel group = 12          Mode = On          Gcchange = -
Port-channel  = Po12        GC   =   -         Pseudo port-channel =
Po12
Port index    = 0           Load = 0x00        Protocol =    -

Age of the port in the current state: 0d:01h:12m:50s


Port: Fa0/24
------------

Port state    = Up Mstr In-Bndl
Channel group = 12          Mode = On          Gcchange = -
Port-channel  = Po12        GC   =   -         Pseudo port-channel =
Po12
Port index    = 0           Load = 0x00        Protocol =    -

Age of the port in the current state: 0d:01h:12m:51s



Group: 23
----------
              Ports in the group:
              -------------------
Port: Fa0/19
------------

Port state    = Up Mstr Assoc In-Bndl
Channel group = 23          Mode = Active      Gcchange = -
Port-channel  = Po23        GC   =   -         Pseudo port-channel =
Po23
Port index    = 0           Load = 0x00        Protocol =    LACP

Flags:  S - Device is sending Slow LACPDUs   F - Device is sending fast
LACPDUs.
        A - Device is in active mode.        P - Device is in passive
mode.

Local information:
                          LACP port      Admin      Oper      Port
Port
Port      Flags    State      Priority     Key       Key       Number
State
```

```
Fa0/19      SA        bndl        32768              0x17        0x17      0x10
0x3D


Partner's information:

                            LACP port                          Admin  Oper    Port
Port
Port        Flags     Priority  Dev ID          Age    key    Key     Number
State
Fa0/19      SA        32768     0015.faac.46c0  9s     0x0    0x2     0x10
0x3D


Age of the port in the current state: 0d:01h:12m:45s


Port: Fa0/20
------------

Port state    = Up Mstr Assoc In-Bndl
Channel group = 23            Mode = Active        Gcchange = -
Port-channel  = Po23          GC   =   -           Pseudo port-channel =
Po23
Port index    = 0             Load = 0x00          Protocol =   LACP


Flags:  S - Device is sending Slow LACPDUs   F - Device is sending fast
LACPDUs.
        A - Device is in active mode.        P - Device is in passive
mode.

Local information:
                            LACP port    Admin    Oper    Port
Port
Port        Flags     State     Priority  Key     Key     Number
State
Fa0/20      SA        bndl      32768     0x17    0x17    0x11
0x3D


Partner's information:

                            LACP port                          Admin  Oper    Port
Port
Port        Flags     Priority  Dev ID          Age    key    Key     Number
State
Fa0/20      SA        32768     0015.faac.46c0  23s    0x0    0x2     0x11
0x3D


Age of the port in the current state: 0d:01h:12m:46s


Port: Fa0/21
------------

Port state    = Up Mstr Assoc In-Bndl
Channel group = 23            Mode = Active        Gcchange = -
Port-channel  = Po23          GC   =   -           Pseudo port-channel =
Po23
```

```
Port index     = 0              Load = 0x00             Protocol =    LACP

Flags:  S - Device is sending Slow LACPDUs   F - Device is sending fast
LACPDUs.
        A - Device is in active mode.        P - Device is in passive
mode.

Local information:
                               LACP port      Admin     Oper      Port
Port
Port        Flags   State      Priority       Key       Key       Number
State
Fa0/21      SA      bndl       32768          0x17      0x17      0x12
0x3D

Partner's information:

                  LACP port                              Admin   Oper    Port
Port
Port        Flags   Priority  Dev ID            Age     key     Key     Number
State
Fa0/21      SA      32768      0015.faac.46c0   13s     0x0     0x2     0x12
0x3D

Age of the port in the current state: 0d:01h:12m:47s


Group: 24
----------
               Ports in the group:
               -------------------
Port: Fa0/16
------------

Port state    = Up Mstr In-Bndl
Channel group = 24          Mode = Desirable-Sl    Gcchange = 0
Port-channel  = Po24        GC   = 0x00180001      Pseudo port-channel =
Po24
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      32
```

Partner's information:

```
           Partner              Partner          Partner          Partner
Group
Port      Name                  Device ID        Port       Age Flags
Cap.
Fa0/16    ASW2                  0015.fab8.2880   Fa0/19     13s SC
10001
```

Age of the port in the current state: 0d:01h:12m:50s

Port: Fa0/17

```
Port state    = Up Mstr In-Bndl
Channel group = 24          Mode = Desirable-Sl   Gcchange = 0
Port-channel  = Po24        GC   = 0x00180001     Pseudo port-channel =
Po24
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      32
```

Partner's information:

```
           Partner              Partner          Partner          Partner
Group
Port      Name                  Device ID        Port       Age Flags
Cap.
Fa0/17    ASW2                  0015.fab8.2880   Fa0/20     9s SC
10001
```

Age of the port in the current state: 0d:01h:12m:51s

Port: Fa0/18

```
Port state    = Up Mstr In-Bndl
Channel group = 24          Mode = Desirable-Sl   Gcchange = 0
```

```
Port-channel  = Po24          GC   = 0x00180001      Pseudo port-channel =
Po24
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       32

Partner's information:

            Partner               Partner            Partner          Partner
Group
Port        Name                  Device ID          Port        Age  Flags
Cap.
Fa0/18      ASW2                  0015.fab8.2880     Fa0/21      18s  SC
10001

Age of the port in the current state: 0d:01h:12m:53s


DSW2#
```

```
DSW2#show etherchannel load-balance
EtherChannel Load-Balancing Configuration:
        src-mac

EtherChannel Load-Balancing Addresses Used Per-Protocol:
Non-IP: Source MAC address
  IPv4: Source MAC address

DSW2#
```

```
DSW2#show etherchannel port-channel
                Channel-group listing:
                ----------------------

Group: 12
----------
                Port-channels in the group:
                ---------------------------

Port-channel: Po12
------------

Age of the Port-channel   = 0d:01h:13m:17s
Logical slot/port   = 1/0              Number of ports = 3
GC                  = 0x00000000       HotStandBy port = null
Passive port list   = Fa0/22 Fa0/23 Fa0/24
Port state          = Port-channel L3-Ag Ag-Inuse
Protocol            =      -
```

```
Port security          = Disabled

Ports in the Port-channel:

Index   Load   Port    EC state        No of bits
------+-----+-----+---------------+----------
  0     00    Fa0/22   On                   0
  0     00    Fa0/23   On                   0
  0     00    Fa0/24   On                   0

Time since last port bundled:    0d:01h:13m:10s    Fa0/24
Time since last port Un-bundled: 0d:01h:13m:11s    Fa0/24

Group: 23
----------
                Port-channels in the group:
                --------------------------

Port-channel: Po23     (Primary Aggregator)

------------

Age of the Port-channel   = 0d:01h:13m:18s
Logical slot/port   = 1/1          Number of ports = 3
HotStandBy port = null
Port state           = Port-channel Ag-Inuse
Protocol             =   LACP
Port security        = Disabled

Ports in the Port-channel:

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

Time since last port bundled:    0d:01h:13m:04s    Fa0/21

Group: 24
----------
                Port-channels in the group:
                --------------------------

Port-channel: Po24
------------

Age of the Port-channel   = 0d:01h:13m:19s
Logical slot/port   = 1/2          Number of ports = 3
GC                   = 0x00180001      HotStandBy port = null
Port state           = Port-channel Ag-Inuse
Protocol             =   PAgP
Port security        = Disabled
```

```
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:13m:07s    Fa0/18

DSW2#
```

```
DSW2#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 24 neighbors
            Partner            Partner          Partner          Partner
Group
Port     Name                Device ID       Port       Age  Flags
Cap.
Fa0/16   ASW2                0015.fab8.2880  Fa0/19      6s  SC
10001
Fa0/17   ASW2                0015.fab8.2880  Fa0/20      1s  SC
10001
Fa0/18   ASW2                0015.fab8.2880  Fa0/21      9s  SC
10001
DSW2#
```

```
DSW2#show lacp neighbor
Flags:  S - Device is requesting Slow LACPDUs
        F - Device is requesting Fast LACPDUs
        A - Device is in Active mode       P - Device is in Passive mode

Channel group 23 neighbors

Partner's information:

                      LACP port                          Admin  Oper  Port
Port
Port        Flags    Priority  Dev ID          Age   key    Key   Number
State
Fa0/19      SA       32768     0015.faac.46c0  16s   0x0    0x2   0x10
0x3D
Fa0/20      SA       32768     0015.faac.46c0   4s   0x0    0x2   0x11
0x3D
Fa0/21      SA       32768     0015.faac.46c0  19s   0x0    0x2   0x12
0x3D
DSW2#
```

```
DSW2#show port-security
Secure Port  MaxSecureAddr  CurrentAddr  SecurityViolation  Security
Action
                (Count)        (Count)          (Count)
------------------------------------------------------------------------
--
------------------------------------------------------------------------
--
Total Addresses in System (excluding one mac per port)     : 0
Max Addresses limit in System (excluding one mac per port) : 5120
DSW2#
```

```
DSW2#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) : 5120
DSW2#
```