```
DSW1#
DSW1#show running-config
Building configuration...

Current configuration : 6679 bytes
!
version 12.2
no service pad
service timestamps debug uptime
service timestamps log uptime
no service password-encryption
!
hostname DSW1
!
enable secret 5 $1$rODO$qAtdAg3h15SehH6GUuZwF/
!
no aaa new-model
ipv6 unicast-routing
ip subnet-zero
ip routing
!
ip multicast-routing
!
!
crypto pki trustpoint TP-self-signed-3185798656
 enrollment selfsigned
 subject-name cn=IOS-Self-Signed-Certificate-3185798656
 revocation-check none
 rsakeypair TP-self-signed-3185798656
!
!
crypto pki certificate chain TP-self-signed-3185798656
 certificate self-signed 01
  3082023D 308201A6 A0030201 02020101 300D0609 2A864886 F70D0101 04050030
  31312F30 2D060355 04031326 494F532D 53656C66 2D536967 6E65642D 43657274
  69666963 6174652D 33313835 37393836 3536301E 170D3933 30333031 30303031
  30305A17 0D323030 31303130 30303030 305A3031 312F302D 06035504 03132649
  4F532D53 656C662D 5369676E 65642D43 65727469 66696361 74652D33 31383537
  39383635 3630819F 300D0609 2A864886 F70D0101 01050003 818D0030 81890281
  8100B5A7 E06E306F 8CE03E7C 7F0A5ED4 F3E83B4D 84C44C79 53FFBF4B AD0AA040
  6F1B5F48 450A6605 064E98C8 F383BF35 7B1E930A 50CE8941 983A7541 00257105
  B72F88B5 9EFA7F55 1555F03C BB445809 46675034 6907395C 62E3997D C6AD08DE
  D5DA2E7A F8F1BCBF F5279179 178DDC57 0F0FC565 3D690CC3 CC342B98 192CDE4C
  FE5B0203 010001A3 65306330 0F060355 1D130101 FF040530 030101FF 30100603
  551D1104 09300782 05445357 312E301F 0603551D 23041830 168014F8 76AF7B7F
  ED73BF2B 4B98E0FA 521E848A 8A439230 1D060355 1D0E0416 0414F876 AF7B7FED
  73BF2B4B 98E0FA52 1E848A8A 4392300D 06092A86 4886F70D 01010405 00038181
  008E47B1 A4F77ADB 27CF55C5 17BB031C 15FE5D6F 1FCD9212 D925F95C 90244899
  1F97EAD1 89880DA0 BD0CCAC2 5DDAC877 BC6A5756 4B6B7389 6F74FF8C 97F41CCB
  4EF0975B CA5E1343 C8682DA1 D2D3EF12 7A9CF7AB C9C4F367 831798CC 4D182B50
  4EF0D03C BBC28793 6A47C9D5 8E5960AD 8D4943CB 5D1A4B18 870DDEB6 E0DA2B3A
CB
  quit
!
```

```
!
!
spanning-tree mode rapid-pvst
spanning-tree extend system-id
spanning-tree vlan 10,200 priority 4096
spanning-tree vlan 20 priority 8192
!
vlan internal allocation policy ascending
!
!
!
!
!
!
interface Tunnel46
 no ip address
 ipv6 address 2026::2:2/122
 ipv6 enable
 ipv6 rip RIPNG enable
 tunnel source 10.1.4.6
 tunnel destination 10.1.4.5
!
interface Tunnel67
 no ip address
 ipv6 address 2026::3:1/122
 ipv6 enable
 ipv6 rip RIPNG enable
 tunnel source 10.2.4.13
 tunnel destination 10.2.4.14
!
interface Port-channel12
 no switchport
 ip address 10.2.4.13 255.255.255.252
 ip pim sparse-dense-mode
!
interface Port-channel13
 switchport trunk encapsulation dot1q
 switchport trunk allowed vlan 10,200
 switchport mode trunk
!
interface Port-channel14
 switchport trunk encapsulation dot1q
 switchport trunk allowed vlan 20,200
 switchport mode trunk
!
interface FastEthernet0/1
 no switchport
 ip address 10.1.4.6 255.255.255.252
 ip pim sparse-dense-mode
 spanning-tree portfast
!
interface FastEthernet0/2
 switchport access vlan 101
 switchport mode access
```

```
 switchport port-security maximum 2
 switchport port-security
 spanning-tree portfast
!
interface FastEthernet0/3
 switchport access vlan 102
 switchport mode access
 spanning-tree portfast
!
interface FastEthernet0/4
 switchport mode dynamic desirable
!
interface FastEthernet0/5
 switchport access vlan 104
 switchport mode access
 spanning-tree portfast
!
interface FastEthernet0/6
 switchport access vlan 105
 switchport mode access
 spanning-tree portfast
!
interface FastEthernet0/7
 switchport access vlan 106
 switchport mode access
 spanning-tree portfast
!
interface FastEthernet0/8
 switchport access vlan 109
 switchport mode access
 spanning-tree portfast
!
interface FastEthernet0/9
 switchport access vlan 17
 switchport mode access
 spanning-tree portfast
!
interface FastEthernet0/10
 switchport mode access
 spanning-tree portfast
!
interface FastEthernet0/11
 switchport mode access
 spanning-tree portfast
!
interface FastEthernet0/12
 switchport access vlan 123
 switchport mode access
 spanning-tree portfast
!
interface FastEthernet0/13
 switchport mode access
 spanning-tree portfast
!
```

```
interface FastEthernet0/14
 switchport mode access
 spanning-tree portfast
!
interface FastEthernet0/15
 switchport mode access
!
interface FastEthernet0/16
 switchport trunk encapsulation dot1q
 switchport trunk allowed vlan 20,200
 switchport mode trunk
 channel-group 14 mode auto
!
interface FastEthernet0/17
 switchport trunk encapsulation dot1q
 switchport trunk allowed vlan 20,200
 switchport mode trunk
 channel-group 14 mode auto
!
interface FastEthernet0/18
 switchport trunk encapsulation dot1q
 switchport trunk allowed vlan 20,200
 switchport mode trunk
 channel-group 14 mode auto
!
interface FastEthernet0/19
 switchport trunk encapsulation dot1q
 switchport trunk allowed vlan 10,200
 switchport mode trunk
 channel-group 13 mode active
!
interface FastEthernet0/20
 switchport trunk encapsulation dot1q
 switchport trunk allowed vlan 10,200
 switchport mode trunk
 channel-group 13 mode active
!
interface FastEthernet0/21
 switchport trunk encapsulation dot1q
 switchport trunk allowed vlan 10,200
 switchport mode trunk
 channel-group 13 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 10.2.1.1 255.255.255.0
 ip helper-address 10.1.4.5
 ip pim sparse-dense-mode
 standby 10 ip 10.2.1.254
 standby 10 priority 110
 standby 10 preempt
!
interface Vlan20
 ip address 10.2.2.2 255.255.255.0
 ip pim sparse-dense-mode
!
interface Vlan200
 ip address 192.168.1.129 255.255.255.224
!
!
router eigrp 10
 no auto-summary
 eigrp router-id 6.6.6.6
 network 10.1.4.6 0.0.0.0
 network 10.2.1.1 0.0.0.0
 network 10.2.2.2 0.0.0.0
 network 10.2.4.13 0.0.0.0
!
router ospf 1
 log-adjacency-changes
 network 10.3.3.2 0.0.0.0 area 0
 network 10.17.17.1 0.0.0.0 area 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
 password cisco
 login
line vty 5 15
 password cisco
 login
!
end

DSW1#
```

```
DSW1#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:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 32/34/40 ms
DSW1#
```

```
DSW1#
DSW1#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:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 32/36/56 ms
DSW1#
```

```
DSW1#
DSW1#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:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 64/64/68 ms
DSW1#
```

```
DSW1#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 100 percent (5/5), round-trip min/avg/max = 128/130/132
ms
DSW1#
```

```
DSW1#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 = 64/66/68 ms
DSW1#
```

```
DSW1#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 = 64/66/68 ms
DSW1#
```

```
DSW1#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 = 128/129/132
ms
DSW1#
```

```
DSW1#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 = 128/130/132
ms
DSW1#
```

```
DSW1#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 = 192/193/196
ms
DSW1#
```

```
DSW1#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 = 192/195/200
ms
DSW1#
```

```
DSW1#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 = 192/194/196
ms
DSW1#
```

```
DSW1#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 = 192/195/200
ms
DSW1#
```

```
DSW1#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 = 192/193/196
ms
DSW1#
```

```
DSW1#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 = 192/195/196
ms
DSW1#
```

```
DSW1#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 = 192/194/196
ms
DSW1#
```

```
DSW1#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 = 192/195/196
ms
DSW1#
```

```
DSW1#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 = 192/195/196
ms
DSW1#
```

```
DSW1#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 = 192/195/196
ms
DSW1#
```

```
DSW1#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 = 192/196/200
ms
DSW1#
```

```
DSW1#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 = 192/195/200
ms
DSW1#
```

```
DSW1#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 0 percent (0/5)
DSW1#
```

```
DSW1#show ip interface brief
Interface              IP-Address      OK? Method Status
Protocol
Vlan1                  unassigned      YES NVRAM  administratively down
down
Vlan10                 10.2.1.1        YES NVRAM  up
up
Vlan20                 10.2.2.2        YES NVRAM  up
up
Vlan200                192.168.1.129   YES NVRAM  up
up
FastEthernet0/1        10.1.4.6        YES NVRAM  up
up
FastEthernet0/2        unassigned      YES unset  down
down
FastEthernet0/3        unassigned      YES unset  down
down
FastEthernet0/4        unassigned      YES unset  down
down
FastEthernet0/5        unassigned      YES unset  down
down
FastEthernet0/6        unassigned      YES unset  down
down
FastEthernet0/7        unassigned      YES unset  down
down
FastEthernet0/8        unassigned      YES unset  down
down
FastEthernet0/9        unassigned      YES unset  down
down
FastEthernet0/10       unassigned      YES unset  down
down
FastEthernet0/11       unassigned      YES unset  down
down
FastEthernet0/12       unassigned      YES unset  down
down
FastEthernet0/13       unassigned      YES unset  down
down
FastEthernet0/14       unassigned      YES unset  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            10.2.4.13        YES NVRAM  up
up
Port-channel13            unassigned       YES unset  up
up
Port-channel14            unassigned       YES unset  up
up
Tunnel46                  unassigned       YES NVRAM  up
up
Tunnel67                  unassigned       YES NVRAM  up
up
DSW1#
```

```
DSW1#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 10.1.4.5 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 10.1.4.5, 01:30:22, FastEthernet0/1
D       10.1.4.8/30 [90/28416] via 10.2.2.1, 01:34:12, Vlan20
                    [90/28416] via 10.2.1.2, 01:34:12, Vlan10
C       10.2.1.0/24 is directly connected, Vlan10
C       10.2.2.0/24 is directly connected, Vlan20
C       10.1.4.4/30 is directly connected, FastEthernet0/1
     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 10.1.4.5, 01:30:07, FastEthernet0/1
DSW1#
```

```
DSW1#show processes cpu
CPU utilization for five seconds: 0%/0%; one minute: 1%; five minutes: 0%
 PID Runtime(ms)     Invoked      uSecs   5Sec   1Min   5Min TTY Process
   1          0           9           0  0.00%  0.00%  0.00%    0 Chunk
Manager
   2          0        1151           0  0.00%  0.00%  0.00%    0 Load Meter
   3          0           1           0  0.00%  0.00%  0.00%    0 OSPF-1
Hello
   4       5076         692        7335  0.00%  0.06%  0.05%    0 Check
heaps
   5          0           7           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         36         194         185  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	0	2	0	0.00%	0.00%	0.00%	0	AAA high-capacit
12	0	1	0	0.00%	0.00%	0.00%	0	Policy Manager
13	16	3	5333	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	97	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	5771	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	0	5771	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	0	5771	0	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	5753	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	36	9568	3	0.00%	0.00%	0.00%	0	Net Background
29	4	15	266	0.00%	0.00%	0.00%	0	IDB Work
30	8	44	181	0.00%	0.00%	0.00%	0	Logger
31	0	5749	0	0.00%	0.00%	0.00%	0	TTY Background
32	0	5761	0	0.00%	0.00%	0.00%	0	Per-Second Jobs
33	768	98	7836	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	59	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	0	1153	0	0.00%	0.00%	0.00%	0	Compute load avg
38	0	1728	0	0.00%	0.00%	0.00%	0	HC Counter Timer
39	16	5684	2	0.00%	0.00%	0.00%	0	Vegas Storm Cont

```
   40          4         22       181  0.00%  0.00%  0.00%     0 SpanTree
Helper
   41          0     110518         0  0.00%  0.00%  0.00%     0
DownWhenLooped
   42          0          5         0  0.00%  0.00%  0.00%     0 Collection
proce
   43         80     143740         0  0.00%  0.00%  0.00%     0 Vegas LED
Proces
   44          0          2         0  0.00%  0.00%  0.00%     0
SCQ_PROCESS
   45         68      36772         1  0.00%  0.00%  0.00%     0 RAM Access
   46         20      59779         0  0.00%  0.00%  0.00%     0 SW Frame
Ager
   47         16         38       421  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      11506         0  0.00%  0.00%  0.00%     0 L2TM
Process
   50         16      11507         1  0.00%  0.00%  0.00%     0 L3TM
   51      24592      17054      1442  0.39%  0.42%  0.41%     0 Vegas
Statistics
   52          8      79850         0  0.00%  0.00%  0.00%     0 HMATM
Learn proc
   53          4       5755         0  0.00%  0.00%  0.00%     0 HMATM Age
proces
   54         52         84       619  0.00%  0.00%  0.00%     0 VL2MM
   55         12       5841         2  0.00%  0.00%  0.00%     0 L3MD
   56        232      14390        16  0.07%  0.00%  0.00%     0 L3MD_STAT
   57          0          1         0  0.00%  0.00%  0.00%     0 Vegas
Bridging
   58        612      71888         8  0.00%  0.00%  0.00%     0 VegasPM
   59         20       2935         6  0.00%  0.00%  0.00%     0 VUR_MGR bg
proce
   60          4       5756         0  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         97         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          8         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        228       1913       119  0.00%  0.00%  0.00%     0 DTP
Protocol
   69          0          1         0  0.00%  0.00%  0.00%     0 EAP
Framework
```

70	0	98	0	0.00%	0.00%	0.00%	0 Port-Security
71	0	8	0	0.00%	0.00%	0.00%	0 SpanTree Flush
72	4	33	121	0.00%	0.00%	0.00%	0 Switch IP Host T
73	0	578	0	0.00%	0.00%	0.00%	0 Ethchnl
74	0	5757	0	0.00%	0.00%	0.00%	0 UDLD
75	0	1	0	0.00%	0.00%	0.00%	0 Vegas IPSG Proce
76	12	25	480	0.00%	0.00%	0.00%	0 VMATM Callback
77	0	48	0	0.00%	0.00%	0.00%	0 HL3U PBR bkgrd p
78	0	48	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	20	0	0.00%	0.00%	0.00%	0 IP Admin SM Proc
85	532	2529	210	0.00%	0.00%	0.00%	0 CDP Protocol
86	1108	206	5378	0.23%	0.92%	0.31%	0 Exec
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	49	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	1516	9300	163	0.00%	0.00%	0.00%	0 IP Input
92	0	1	0	0.00%	0.00%	0.00%	0 ICMP event handl
93	4	11245	0	0.00%	0.00%	0.00%	0 IP ARP Track
94	0	3	0	0.00%	0.00%	0.00%	0 ADJ resolve proc
95	404	11847	34	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	98	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	74	0	0.00%	0.00%	0.00%	0 Cluster L2

101	0	577	0	0.00%	0.00%	0.00%	0	Cluster RARP
102	152	1501	101	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	22	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	16	45	355	0.00%	0.00%	0.00%	0	L2MM
110	60	484	123	0.00%	0.00%	0.00%	0	MRD
111	76	401	189	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	4	4	1000	0.00%	0.00%	0.00%	0	Crypto ACL
116	44	116	379	0.00%	0.00%	0.00%	0	IP RIB Update
117	8	22	363	0.00%	0.00%	0.00%	0	DHCPD Receive
118	0	1	0	0.00%	0.00%	0.00%	0	Transport Port A
119	0	49	0	0.00%	0.00%	0.00%	0	DHCPD Timer
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	0	4	0	0.00%	0.00%	0.00%	0	Crypto IKMP
129	96	291	329	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	4	13	307	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	5763	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	15630	0	0.00%	0.00%	0.00%	0	PM Callback
141	40	43	930	0.00%	0.00%	0.00%	0	VLAN Manager
142	0	1617	0	0.00%	0.00%	0.00%	0	DHCPD Database
143	0	462	0	0.00%	0.00%	0.00%	0	dhcp snooping sw
144	0	1	0	0.00%	0.00%	0.00%	0	VFM Queue Proces
145	8	1	8000	0.00%	0.00%	0.00%	0	VFM/VQM Merge Pr
146	0	1	0	0.00%	0.00%	0.00%	0	VFM Deferred Upd
147	0	13	0	0.00%	0.00%	0.00%	0	VTP Trap Process
149	0	2	0	0.00%	0.00%	0.00%	0	AAA SEND STOP EV
150	0	1	0	0.00%	0.00%	0.00%	0	Syslog Traps
151	0	1	0	0.00%	0.00%	0.00%	0	DATA Transfer Pr
152	0	1	0	0.00%	0.00%	0.00%	0	DATA Collector
153	8	26	307	0.00%	0.00%	0.00%	0	Syslog
154	0	1	0	0.00%	0.00%	0.00%	0	C3550 DHCP Snoop
155	0	2	0	0.00%	0.00%	0.00%	0	STP STACK TOPOLO
156	0	2	0	0.00%	0.00%	0.00%	0	STP FAST TRANSIT
157	0	2	0	0.00%	0.00%	0.00%	0	STP STACK TOPOLO
158	0	2	0	0.00%	0.00%	0.00%	0	CSRT RAPID TRANS
160	0	5	0	0.00%	0.00%	0.00%	0	SSH Event handle
161	4	22	181	0.00%	0.00%	0.00%	0	IPv6 RIB Redistr
162	16	8902	1	0.00%	0.00%	0.00%	0	CEF: IPv4 proces
163	0	1	0	0.00%	0.00%	0.00%	0	ADJ background
164	8	153	52	0.00%	0.00%	0.00%	0	IP Background

```
 165      5992        34   176235  0.00%  0.00%  0.00%   0 crypto sw
pk pro
 166        28       516       54  0.00%  0.00%  0.00%   0 IPv6 Input
 167         0       247        0  0.00%  0.00%  0.00%   0 IPv6 IDB
 168         0        10        0  0.00%  0.00%  0.00%   0 IPv6 ND
 169        24       878       27  0.00%  0.00%  0.00%   0 IPv6 RIP
 170         0      5767        0  0.00%  0.00%  0.00%   0 DVMRP
Timers
 171        88      6236       14  0.00%  0.00%  0.00%   0 IGMP Input
 172       132      7548       17  0.00%  0.00%  0.00%   0 PIM
Process
 173         0     57612        0  0.00%  0.00%  0.00%   0 Mwheel
Process
 174       136      1269      107  0.00%  0.00%  0.00%   0 PAgP
 175       144      1885       76  0.00%  0.00%  0.00%   0 LACP
Protocol
 176       144      4005       35  0.00%  0.00%  0.00%   0 HSRP
(Standby)
 178         0        23        0  0.00%  0.00%  0.00%   0 EIGRP:
Router
 179       688      5575      123  0.00%  0.00%  0.00%   0 EIGRP-
IPv4:
 180         8      5659        1  0.00%  0.00%  0.00%   0 OSPF-1
Router
 181       480     10032       47  0.00%  0.00%  0.00%   0 EIGRP-
IPv4: Hell
DSW1#
```

```
DSW1#show interfaces
Vlan1 is administratively down, line protocol is down
  Hardware is EtherSVI, address is 000d.bde3.6e00 (bia 000d.bde3.6e00)
  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 000d.bde3.6e00 (bia 000d.bde3.6e00)
  Internet address is 10.2.1.1/24
  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 00:00:01, 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: 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
     4010 packets input, 311295 bytes, 0 no buffer
     Received 0 broadcasts (1245 IP multicasts)
     0 runts, 0 giants, 0 throttles
```

```
     0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
     3564 packets output, 241690 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 000d.bde3.6e00 (bia 000d.bde3.6e00)
  Internet address is 10.2.2.2/24
  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 00:00:00, 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: 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
     1461 packets input, 114649 bytes, 0 no buffer
     Received 0 broadcasts (1241 IP multicasts)
     0 runts, 0 giants, 0 throttles
     0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
     1476 packets output, 109937 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 000d.bde3.6e00 (bia 000d.bde3.6e00)
  Internet address is 192.168.1.129/27
  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 01:34:46, output 01:35:36, 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
     1 packets input, 64 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 000d.bde3.6e00 (bia
000d.bde3.6e00)
  Internet address is 10.1.4.6/30
  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
      2723 packets input, 253657 bytes, 0 no buffer
      Received 1742 broadcasts (1269 IP multicasts)
      0 runts, 0 giants, 0 throttles
      0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
      0 watchdog, 1739 multicast, 0 pause input
      0 input packets with dribble condition detected
      3086 packets output, 296008 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 down, line protocol is down (notconnect)
   Hardware is Fast Ethernet, address is 000d.bde3.6e02 (bia
000d.bde3.6e02)
   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 000d.bde3.6e03 (bia
000d.bde3.6e03)
```

```
    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 down, line protocol is down (notconnect)
    Hardware is Fast Ethernet, address is 000d.bde3.6e04 (bia
000d.bde3.6e04)
    MTU 1500 bytes, BW 100000 Kbit, DLY 100 usec,
        reliability 255/255, txload 1/255, rxload 1/255
    Encapsulation ARPA, loopback not set
    Keepalive set (10 sec)
    Auto-duplex, Auto-speed, media type is 10/100BaseTX
    input flow-control is off, output flow-control is unsupported
    ARP type: ARPA, ARP Timeout 04:00:00
    Last input never, output 01:36:14, 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
        11 packets output, 1436 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 down, line protocol is down (notconnect)
```

```
  Hardware is Fast Ethernet, address is 000d.bde3.6e05 (bia
000d.bde3.6e05)
  MTU 1500 bytes, BW 100000 Kbit, DLY 100 usec,
     reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation ARPA, loopback not set
  Keepalive set (10 sec)
  Auto-duplex, Auto-speed, media type is 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 down, line protocol is down (notconnect)
  Hardware is Fast Ethernet, address is 000d.bde3.6e06 (bia
000d.bde3.6e06)
  MTU 1500 bytes, BW 100000 Kbit, DLY 100 usec,
     reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation ARPA, loopback not set
  Keepalive set (10 sec)
  Auto-duplex, Auto-speed, media type is 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 down, line protocol is down (notconnect)
  Hardware is Fast Ethernet, address is 000d.bde3.6e07 (bia
000d.bde3.6e07)
  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 down, line protocol is down (notconnect)
  Hardware is Fast Ethernet, address is 000d.bde3.6e08 (bia
000d.bde3.6e08)
  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 down, line protocol is down (notconnect)
  Hardware is Fast Ethernet, address is 000d.bde3.6e09 (bia
000d.bde3.6e09)
  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 down, line protocol is down (notconnect)
  Hardware is Fast Ethernet, address is 000d.bde3.6e0a (bia
000d.bde3.6e0a)
  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 down, line protocol is down (notconnect)
  Hardware is Fast Ethernet, address is 000d.bde3.6e0b (bia
000d.bde3.6e0b)
  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 down, line protocol is down (notconnect)
  Hardware is Fast Ethernet, address is 000d.bde3.6e0c (bia
000d.bde3.6e0c)
  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 down, line protocol is down (notconnect)
  Hardware is Fast Ethernet, address is 000d.bde3.6e0d (bia
000d.bde3.6e0d)
  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 down, line protocol is down (notconnect)
  Hardware is Fast Ethernet, address is 000d.bde3.6e0e (bia
000d.bde3.6e0e)
  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 000d.bde3.6e0f (bia
000d.bde3.6e0f)
  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 000d.bde3.6e10 (bia
000d.bde3.6e10)
  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 00:00:03, 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
```

```
     5545 packets input, 446503 bytes, 0 no buffer
     Received 4941 broadcasts (0 multicasts)
     0 runts, 0 giants, 0 throttles
     0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
     0 watchdog, 4940 multicast, 0 pause input
     0 input packets with dribble condition detected
     2572 packets output, 229226 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 000d.bde3.6e11 (bia
000d.bde3.6e11)
  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 00:00:05, 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
     1089 packets input, 110360 bytes, 0 no buffer
     Received 509 broadcasts (0 multicasts)
     0 runts, 0 giants, 0 throttles
     0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
     0 watchdog, 509 multicast, 0 pause input
     0 input packets with dribble condition detected
     1088 packets output, 107052 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 000d.bde3.6e12 (bia
000d.bde3.6e12)
  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 00:00:07, 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
       1088 packets input, 110270 bytes, 0 no buffer
       Received 508 broadcasts (0 multicasts)
       0 runts, 0 giants, 0 throttles
       0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
       0 watchdog, 508 multicast, 0 pause input
       0 input packets with dribble condition detected
       4025 packets output, 318977 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 000d.bde3.6e13 (bia
000d.bde3.6e13)
  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 00:00:05, 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
     1560 packets input, 162210 bytes, 0 no buffer
     Received 508 broadcasts (0 multicasts)
     0 runts, 0 giants, 0 throttles
     0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
     0 watchdog, 508 multicast, 0 pause input
     0 input packets with dribble condition detected
     4680 packets output, 390284 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 000d.bde3.6e14 (bia
000d.bde3.6e14)
  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 1000 bits/sec, 1 packets/sec
    5 minute output rate 0 bits/sec, 0 packets/sec
       5383 packets input, 472602 bytes, 0 no buffer
       Received 4777 broadcasts (0 multicasts)
       0 runts, 0 giants, 0 throttles
       0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
       0 watchdog, 4518 multicast, 0 pause input
       0 input packets with dribble condition detected
       1215 packets output, 125244 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 000d.bde3.6e15 (bia
000d.bde3.6e15)
  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 00:00:08, 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
       1089 packets input, 118428 bytes, 0 no buffer
       Received 509 broadcasts (0 multicasts)
       0 runts, 0 giants, 0 throttles
       0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
       0 watchdog, 509 multicast, 0 pause input
       0 input packets with dribble condition detected
       6907 packets output, 534440 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 000d.bde3.6e00 (bia
000d.bde3.6e00)
  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 00:00:08, 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
      2479 packets input, 224183 bytes, 0 no buffer
      Received 1666 broadcasts (0 multicasts)
      0 runts, 0 giants, 0 throttles
      0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
      0 watchdog, 1663 multicast, 0 pause input
      0 input packets with dribble condition detected
      2487 packets output, 239257 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 000d.bde3.6e00 (bia
000d.bde3.6e00)
  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 00:00:00, 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
     676 packets input, 76864 bytes, 0 no buffer
     Received 100 broadcasts (0 multicasts)
     0 runts, 0 giants, 0 throttles
     0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
     0 watchdog, 100 multicast, 0 pause input
     0 input packets with dribble condition detected
     680 packets output, 75752 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 000d.bde3.6e00 (bia
000d.bde3.6e00)
  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 00:00:02, 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
        677 packets input, 77143 bytes, 0 no buffer
        Received 101 broadcasts (0 multicasts)
        0 runts, 0 giants, 0 throttles
        0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
        0 watchdog, 101 multicast, 0 pause input
        0 input packets with dribble condition detected
        680 packets output, 75752 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 000d.bde3.6e19 (bia
000d.bde3.6e19)
  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 000d.bde3.6e1a (bia
000d.bde3.6e1a)
  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 000d.bde3.6e00 (bia
000d.bde3.6e00)
  Internet address is 10.2.4.13/30
  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 00:00:02, 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 1000 bits/sec, 1 packets/sec
     3837 packets input, 378538 bytes, 0 no buffer
     Received 1869 broadcasts (1266 IP multicasts)
     0 runts, 0 giants, 0 throttles
     0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
     0 watchdog, 1866 multicast, 0 pause input
     0 input packets with dribble condition detected
     3852 packets output, 391555 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-channel13 is up, line protocol is up (connected)
```

```
  Hardware is EtherChannel, address is 000d.bde3.6e14 (bia
000d.bde3.6e14)
  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 00:00:04, 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 1000 bits/sec, 2 packets/sec
     8029 packets input, 752724 bytes, 0 no buffer
     Received 5788 broadcasts (0 multicasts)
     0 runts, 0 giants, 0 throttles
     0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
     0 watchdog, 5530 multicast, 0 pause input
     0 input packets with dribble condition detected
     12813 packets output, 1050490 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-channel14 is up, line protocol is up (connected)
  Hardware is EtherChannel, address is 000d.bde3.6e10 (bia
000d.bde3.6e10)
  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 00:00:00, output 00:00:01, output hang never
  Last clearing of "show interface" counters never
  Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
  Queueing strategy: fifo
  Output queue: 0/40 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 1000 bits/sec, 1 packets/sec
     7736 packets input, 668215 bytes, 0 no buffer
     Received 5966 broadcasts (0 multicasts)
     0 runts, 0 giants, 0 throttles
     0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
     0 watchdog, 5965 multicast, 0 pause input
     0 input packets with dribble condition detected
     7695 packets output, 656047 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
Tunnel46 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 10.1.4.6, destination 10.1.4.5
  Tunnel protocol/transport GRE/IP, key disabled, sequencing disabled
  Tunnel TTL 255
  Checksumming of packets disabled
  Last input 00:00:06, output 00:00:11, 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
     215 packets input, 32580 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
     218 packets output, 25136 bytes, 0 underruns
     0 output errors, 0 collisions, 0 interface resets
     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 10.2.4.13, destination 10.2.4.14
  Tunnel protocol/transport GRE/IP, key disabled, sequencing disabled
  Tunnel TTL 255
  Checksumming of packets disabled
  Last input 00:00:16, output 00:00:12, output hang never
  Last clearing of "show interface" counters never
  Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 10
  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
     208 packets input, 19968 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
     225 packets output, 37396 bytes, 0 underruns
     0 output errors, 0 collisions, 0 interface resets
     0 output buffer failures, 0 output buffers swapped out
DSW1#
```

```
DSW1#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
```

Port					
Fa0/13	0	0	0	0	0
Fa0/14	0	0	0	0	0
Fa0/15	0	0	0	0	0
Fa0/16	0	0	0	0	0
Fa0/17	0	0	0	0	0
Fa0/18	0	0	0	0	0
Fa0/19	0	0	0	0	0
Fa0/20	0	0	0	0	0
Fa0/21	0	0	0	0	0
Fa0/22	0	0	0	0	0
Fa0/23	0	0	0	0	0
Fa0/24	0	0	0	0	0
Gi0/1	0	0	0	0	0
Gi0/2	0	0	0	0	0
Po12	0	0	0	0	0
Po13	0	0	0	0	0
Po14	0	0	0	0	0

Port	Single-Col	Multi-Col	Late-Col	Excess-Col	Carri-Sen	Runts	Giants
Fa0/1	0	0	0	0	0	0	0
Fa0/2	0	0	0	0	0	0	0
Fa0/3	0	0	0	0	0	0	0
Fa0/4	0	0	0	0	0	0	0
Fa0/5	0	0	0	0	0	0	0
Fa0/6	0	0	0	0	0	0	0
Fa0/7	0	0	0	0	0	0	0
Fa0/8	0	0	0	0	0	0	0
Fa0/9	0	0	0	0	0	0	0
Fa0/10	0	0	0	0	0	0	0
Fa0/11	0	0	0	0	0	0	0
Fa0/12	0	0	0	0	0	0	0
Fa0/13	0	0	0	0	0	0	0
Fa0/14	0	0	0	0	0	0	0
Fa0/15	0	0	0	0	0	0	0
Fa0/16	0	0	0	0	0	0	0
Fa0/17	0	0	0	0	0	0	0

Port						
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					
Po13	0	0	0	0	0	0
	0					
Po14	0	0	0	0	0	0
	0					

DSW1#

```
DSW1#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           170         R S I       1841      Fas
0/0
DSW2            Fas 0/24          150         R S I       WS-C3550- Fas
0/24
DSW2            Fas 0/23          150         R S I       WS-C3550- Fas
0/23
DSW2            Fas 0/22          150         R S I       WS-C3550- Fas
0/22
ASW1            Fas 0/21          141          S I        WS-C2950- Fas
0/21
ASW1            Fas 0/19          141          S I        WS-C2950- Fas
0/19
ASW1            Fas 0/20          141          S I        WS-C2950- Fas
0/20
ASW2            Fas 0/18          141          S I        WS-C2950- Fas
0/18
ASW2            Fas 0/17          141          S I        WS-C2950- Fas
0/17
ASW2            Fas 0/16          141          S I        WS-C2950- Fas
0/16
DSW1#
```

```
DSW1#show cdp neighbors detail
-------------------------
Device ID: R4
Entry address(es):
  IP address: 10.1.4.5
Platform: Cisco 1841,  Capabilities: Router Switch IGMP
Interface: FastEthernet0/1,  Port ID (outgoing port): FastEthernet0/0
Holdtime : 163 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: DSW2
Entry address(es):
  IP address: 10.2.4.14
Platform: Cisco WS-C3550-24-PWR,  Capabilities: Router Switch IGMP
Interface: FastEthernet0/24,  Port ID (outgoing port): FastEthernet0/24
Holdtime : 143 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=00000000FFFFFFFF0102250C000000000000000BFD20BA00FF0000
VTP Management Domain: 'netlearning'
Duplex: full
Management address(es):
  IP address: 10.2.4.14

-------------------------
Device ID: DSW2
Entry address(es):
  IP address: 10.2.4.14
Platform: Cisco WS-C3550-24-PWR,  Capabilities: Router Switch IGMP
Interface: FastEthernet0/23,  Port ID (outgoing port): FastEthernet0/23
Holdtime : 141 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=00000000FFFFFFFF0102250C000000000000000BFD20BA00FF0000
VTP Management Domain: 'netlearning'
Duplex: full
Management address(es):
  IP address: 10.2.4.14

-------------------------
Device ID: DSW2
Entry address(es):
  IP address: 10.2.4.14
Platform: Cisco WS-C3550-24-PWR,  Capabilities: Router Switch IGMP
Interface: FastEthernet0/22,  Port ID (outgoing port): FastEthernet0/22
Holdtime : 141 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=00000000FFFFFFFF0102250C000000000000000BFD20BA00FF0000
```

```
VTP Management Domain: 'netlearning'
Duplex: full
Management address(es):
  IP address: 10.2.4.14

-------------------------
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): FastEthernet0/21
Holdtime : 131 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=00000000FFFFFFFF010225010000000000000015FAAC46C0FF0000
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): FastEthernet0/19
Holdtime : 130 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=00000000FFFFFFFF010225010000000000000015FAAC46C0FF0000
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): FastEthernet0/20
Holdtime : 129 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=00000000FFFFFFFF010225010000000000000015FAAC46C0FF0000
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): FastEthernet0/18
Holdtime : 128 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=00000000FFFFFFFF010225020000000000000015FAB82880FF0000
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): FastEthernet0/17
Holdtime : 128 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=00000000FFFFFFFF010225020000000000000015FAB82880FF0000
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): FastEthernet0/16
Holdtime : 127 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=00000000FFFFFFFF010225020000000000000015FAB82880FF0000
VTP Management Domain: 'netlearning'
Native VLAN: 1
Duplex: full
Management address(es):
  IP address: 192.168.1.132

DSW1#
```

```
DSW1#show arp
Protocol  Address          Age (min)  Hardware Addr   Type   Interface
Internet  10.2.4.13            -      000d.bde3.6e00  ARPA   Port-
channel12
Internet  10.2.4.14            96     000b.fd20.ba00  ARPA   Port-
channel12
Internet  10.2.2.2             -      000d.bde3.6e00  ARPA   Vlan20
Internet  10.2.1.1             -      000d.bde3.6e00  ARPA   Vlan10
Internet  10.1.4.6             -      000d.bde3.6e00  ARPA
FastEthernet0/1
Internet  10.1.4.5             97     0019.5578.1cb2  ARPA
FastEthernet0/1
Internet  10.2.2.1             96     000b.fd20.ba00  ARPA   Vlan20
Internet  10.2.1.2             29     000b.fd20.ba00  ARPA   Vlan10
Internet  10.2.1.5             65     0024.bec4.b0b9  ARPA   Vlan10
Internet  10.2.1.4             64     001c.238e.dbbc  ARPA   Vlan10
Internet  192.168.1.129        -      000d.bde3.6e00  ARPA   Vlan200
Internet  10.2.1.254           -      0000.0c07.ac0a  ARPA   Vlan10
DSW1#
```

```
DSW1#show ip arp
Protocol  Address          Age (min)  Hardware Addr   Type   Interface
Internet  10.2.4.13              -    000d.bde3.6e00  ARPA   Port-
channel12
Internet  10.2.4.14             96    000b.fd20.ba00  ARPA   Port-
channel12
Internet  10.2.2.2               -    000d.bde3.6e00  ARPA   Vlan20
Internet  10.2.1.1               -    000d.bde3.6e00  ARPA   Vlan10
Internet  10.1.4.6               -    000d.bde3.6e00  ARPA
FastEthernet0/1
Internet  10.1.4.5              97    0019.5578.1cb2  ARPA
FastEthernet0/1
Internet  10.2.2.1              96    000b.fd20.ba00  ARPA   Vlan20
Internet  10.2.1.2              29    000b.fd20.ba00  ARPA   Vlan10
Internet  10.2.1.5              65    0024.bec4.b0b9  ARPA   Vlan10
Internet  10.2.1.4              64    001c.238e.dbbc  ARPA   Vlan10
Internet  192.168.1.129          -    000d.bde3.6e00  ARPA   Vlan200
Internet  10.2.1.254             -    0000.0c07.ac0a  ARPA   Vlan10
DSW1#
```

```
DSW1#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 10.2.1.1/24
  Broadcast address is 255.255.255.255
  Address determined by non-volatile memory
  MTU is 1500 bytes
  Helper address is 10.1.4.5
  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 10.2.2.2/24
   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 192.168.1.129/27
    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 10.1.4.6/30
    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 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 down, line protocol is down
  Inbound  access list is not set
FastEthernet0/5 is down, line protocol is down
  Inbound  access list is not set
FastEthernet0/6 is down, line protocol is down
  Inbound  access list is not set
FastEthernet0/7 is down, line protocol is down
  Inbound  access list is not set
FastEthernet0/8 is down, line protocol is down
  Inbound  access list is not set
FastEthernet0/9 is down, line protocol is down
  Inbound  access list is not set
FastEthernet0/10 is down, line protocol is down
  Inbound  access list is not set
FastEthernet0/11 is down, line protocol is down
  Inbound  access list is not set
FastEthernet0/12 is down, line protocol is down
  Inbound  access list is not set
FastEthernet0/13 is down, line protocol is down
```

```
   Inbound  access list is not set
FastEthernet0/14 is 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 10.2.4.13/30
   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-channel13 is up, line protocol is up
Port-channel14 is up, line protocol is up
Tunnel46 is up, line protocol is up
    Internet protocol processing disabled
Tunnel67 is up, line protocol is up
    Internet protocol processing disabled
DSW1#
```

```
DSW1#show ip cef
Prefix                 Next Hop              Interface
0.0.0.0/0              10.1.4.5             FastEthernet0/1
0.0.0.0/32             receive
10.1.1.8/30            10.1.4.5             FastEthernet0/1
10.1.4.4/30            attached             FastEthernet0/1
10.1.4.4/32            receive              FastEthernet0/1
10.1.4.5/32            attached             FastEthernet0/1
10.1.4.6/32            receive              FastEthernet0/1
10.1.4.7/32            receive              FastEthernet0/1
10.1.4.8/30            10.2.1.2             Vlan10
                      10.2.2.1             Vlan20
10.2.1.0/24            attached             Vlan10
10.2.1.0/32            receive              Vlan10
10.2.1.1/32            receive              Vlan10
10.2.1.2/32            attached             Vlan10
10.2.1.4/32            attached             Vlan10
10.2.1.5/32            attached             Vlan10
10.2.1.254/32         receive
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           attached             Vlan20
10.2.2.2/32           receive              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          receive              Port-channel12
10.2.4.14/32          attached             Port-channel12
10.2.4.15/32          receive              Port-channel12
192.168.1.128/27      attached             Vlan200
192.168.1.128/32      receive              Vlan200
192.168.1.129/32      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
DSW1#
```

```
DSW1#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
DSW1#
```



```
DSW1#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:
    10.1.4.6/32
    10.2.1.1/32
    10.2.2.2/32
    10.2.4.13/32
  Routing Information Sources:
    Gateway          Distance       Last Update
    10.2.4.14              90        01:32:58
    10.1.4.5               90        01:32:58
    10.2.1.2               90        01:32:58
    10.2.2.1               90        01:32:58
  Distance: internal 90 external 170

Routing Protocol is "ospf 1"
  Outgoing update filter list for all interfaces is not set
  Incoming update filter list for all interfaces is not set
  Router ID 192.168.1.129
  Number of areas in this router is 1. 1 normal 0 stub 0 nssa
  Maximum path: 4
  Routing for Networks:
    10.3.3.2 0.0.0.0 area 0
    10.17.17.1 0.0.0.0 area 0
  Routing Information Sources:
    Gateway          Distance       Last Update
  Distance: (default is 110)

DSW1#
```

```
DSW1#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
DSW1#
```

```
DSW1#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 10.1.4.5, 01:33:29, FastEthernet0/1
D       10.1.4.8/30 [90/28416] via 10.2.2.1, 01:37:19, Vlan20
                     [90/28416] via 10.2.1.2, 01:37:19, Vlan10
D*EX 0.0.0.0/0 [170/261120] via 10.1.4.5, 01:33:13, FastEthernet0/1
DSW1#
```

```
DSW1#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   10.2.2.1                Vl20             13 01:37:31     1    200  0
71
2   10.2.1.2                Vl10             12 01:37:32     1    200  0
70
1   10.2.4.14               Po12             13 01:38:10     1    200  0
72
0   10.1.4.5                Fa0/1            13 01:38:48     1    200  0
44
DSW1#
```

```
DSW1#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         1       0/1            50
0
Po12             1        0/0         1       0/1            50
0
DSW1#
```

```
DSW1#show vlan

VLAN Name                             Status    Ports
---- -------------------------------- --------- ------------------------
------
1    default                          active    Fa0/4, Fa0/10, Fa0/11,
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
------- --------- ---------------- -------------------------------------
-----

DSW1#
```

```
DSW1#show spanning-tree
```

```
VLAN0010
  Spanning tree enabled protocol rstp
  Root ID    Priority    4106
             Address     000d.bde3.6e00
             This bridge is the root
             Hello Time   2 sec  Max Age 20 sec  Forward Delay 15 sec

  Bridge ID  Priority    4106   (priority 4096 sys-id-ext 10)
             Address     000d.bde3.6e00
             Hello Time   2 sec  Max Age 20 sec  Forward Delay 15 sec
             Aging Time 300

Interface          Role Sts Cost      Prio.Nbr Type
------------------ ---- --- --------- -------- -------------------------
-------
Po13               Desg FWD 9         128.66   P2p Peer(STP)


VLAN0020
  Spanning tree enabled protocol rstp
  Root ID    Priority    4116
             Address     000b.fd20.ba00
             Cost        18
             Port        67 (Port-channel14)
             Hello Time   2 sec  Max Age 20 sec  Forward Delay 15 sec

  Bridge ID  Priority    8212   (priority 8192 sys-id-ext 20)
             Address     000d.bde3.6e00
             Hello Time   2 sec  Max Age 20 sec  Forward Delay 15 sec
             Aging Time 300

Interface          Role Sts Cost      Prio.Nbr Type
------------------ ---- --- --------- -------- -------------------------
-------
Po14               Root FWD 9         128.67   P2p Peer(STP)


VLAN0200
  Spanning tree enabled protocol rstp
  Root ID    Priority    4296
             Address     000d.bde3.6e00
             This bridge is the root
             Hello Time   2 sec  Max Age 20 sec  Forward Delay 15 sec

  Bridge ID  Priority    4296   (priority 4096 sys-id-ext 200)
             Address     000d.bde3.6e00
             Hello Time   2 sec  Max Age 20 sec  Forward Delay 15 sec
             Aging Time 300

Interface          Role Sts Cost      Prio.Nbr Type
------------------ ---- --- --------- -------- -------------------------
-------
Po13               Desg FWD 9         128.66   P2p Peer(STP)
Po14               Desg FWD 9         128.67   P2p Peer(STP)
```

```
DSW1#




















DSW1#show interfaces status

Port        Name               Status        Vlan       Duplex  Speed Type
Fa0/1                          connected     routed     a-full  a-100
10/100BaseTX
Fa0/2                          notconnect    101           auto    auto
10/100BaseTX
Fa0/3                          notconnect    102           auto    auto
10/100BaseTX
Fa0/4                          notconnect    1             auto    auto
10/100BaseTX
```

```
Fa0/5                               notconnect    104        auto    auto
10/100BaseTX
Fa0/6                               notconnect    105        auto    auto
10/100BaseTX
Fa0/7                               notconnect    106        auto    auto
10/100BaseTX
Fa0/8                               notconnect    109        auto    auto
10/100BaseTX
Fa0/9                               notconnect    17         auto    auto
10/100BaseTX
Fa0/10                              notconnect    1          auto    auto
10/100BaseTX
Fa0/11                              notconnect    1          auto    auto
10/100BaseTX
Fa0/12                              notconnect    123        auto    auto
10/100BaseTX
Fa0/13                              notconnect    1          auto    auto
10/100BaseTX
Fa0/14                              notconnect    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
Po13                                connected     trunk      a-full  a-100
Po14                                connected     trunk      a-full  a-100
DSW1#
```

```
DSW1#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: 101 (Inactive)
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: 102 (Inactive)
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: 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: Fa0/5
Switchport: Enabled
Administrative Mode: static access
Operational Mode: down
Administrative Trunking Encapsulation: negotiate
Negotiation of Trunking: Off
Access Mode VLAN: 104 (Inactive)
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: 105 (Inactive)
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: 106 (Inactive)
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: 109 (Inactive)
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: 17 (Inactive)
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: 123 (Inactive)
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 Po14)
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 Po14)
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 Po14)
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 Po13)
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 Po13)
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 Po13)
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: Po13
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: Po14
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
DSW1#

```
DSW1#show interfaces trunk

Port         Mode                Encapsulation  Status        Native vlan
Po13         on                  802.1q         trunking      1
Po14         on                  802.1q         trunking      1

Port         Vlans allowed on trunk
Po13         10,200
Po14         20,200

Port         Vlans allowed and active in management domain
Po13         10,200
Po14         20,200

Port         Vlans in spanning tree forwarding state and not pruned
Po13         10,200
Po14         20,200
DSW1#
```

```
DSW1#show vtp status
VTP Version                  : running VTP2
Configuration Revision       : 36
Maximum VLANs supported locally : 1005
Number of existing VLANs     : 8
VTP Operating Mode           : Server
VTP Domain Name              : netlearning
VTP Pruning Mode             : Disabled
VTP V2 Mode                  : Enabled
VTP Traps Generation         : Disabled
MD5 digest                   : 0x3A 0xD8 0x7D 0x4B 0xF5 0x78 0x54 0xCE
Configuration last modified by 10.2.1.1 at 3-1-93 00:50:15
Local updater ID is 10.2.1.1 on interface Vl10 (lowest numbered VLAN
interface found)
DSW1#
```

```
DSW1#show vtp password
VTP Password: cisco
DSW1#
```

```
DSW1#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:39m:52s


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:39m:53s
```

```
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:39m:53s

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

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

Age of the Port-channel   = 0d:01h:40m:45s
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:39m:53s    Fa0/24
Time since last port Un-bundled: 0d:01h:39m:55s    Fa0/24

Group: 13
-----------
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 = 13           Mode = Active        Gcchange = -
Port-channel  = Po13         GC   =   -           Pseudo port-channel =
Po13
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         0xD      0xD      0x10
0x3D

Partner's information:

                      LACP port                       Admin  Oper   Port
Port
Port          Flags   Priority  Dev ID        Age     key    Key    Number
State
Fa0/19        SP      32768     0015.faac.46c0 13s    0x0    0x1    0x13
0x3C

Age of the port in the current state: 0d:01h:40m:37s

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

Port state    = Up Mstr Assoc In-Bndl
Channel group = 13            Mode = Active        Gcchange = -
Port-channel  = Po13          GC   =   -           Pseudo port-channel =
Po13
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         0xD      0xD      0x11
0x3D

Partner's information:

                      LACP port                       Admin  Oper   Port
Port
Port          Flags   Priority  Dev ID        Age     key    Key    Number
State
Fa0/20        SP      32768     0015.faac.46c0 19s    0x0    0x1    0x14
0x3C
```

```
Age of the port in the current state: 0d:01h:40m:40s

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

Port state     = Up Mstr Assoc In-Bndl
Channel group = 13            Mode = Active          Gcchange = -
Port-channel  = Po13          GC   =   -             Pseudo port-channel =
Po13
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         0xD       0xD      0x12
0x3D

Partner's information:

                    LACP port                    Admin  Oper   Port
Port
Port        Flags   Priority  Dev ID        Age   key    Key    Number
State
Fa0/21      SP      32768     0015.faac.46c0  8s   0x0    0x1    0x15
0x3C

Age of the port in the current state: 0d:01h:40m:39s

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

Port-channel: Po13    (Primary Aggregator)

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

Age of the Port-channel   = 0d:01h:40m:49s
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:40m:40s    Fa0/21


Group: 14
----------
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 = 14          Mode = Automatic-Sl   Gcchange = 0
Port-channel  = Po14        GC   = 0x000E0001       Pseudo port-channel =
Po14
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   SAC   U6/S7   HQ      30s     1        128        Any     33

Partner's information:

          Partner               Partner         Partner         Partner
Group
Port      Name                  Device ID       Port      Age Flags
Cap.
Fa0/16   ASW2                  0015.fab8.2880   Fa0/16     11s SC
20001

Age of the port in the current state: 0d:01h:40m:43s


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

```
Port state     = Up Mstr In-Bndl
Channel group = 14           Mode = Automatic-Sl   Gcchange = 0
Port-channel  = Po14         GC   = 0x000E0001     Pseudo port-channel =
Po14
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    SAC   U6/S7   HQ      30s      1       128        Any      33

Partner's information:

            Partner                 Partner            Partner            Partner
Group
Port        Name                    Device ID          Port        Age  Flags
Cap.
Fa0/17    ASW2                    0015.fab8.2880   Fa0/17      13s SC
20001

Age of the port in the current state: 0d:01h:40m:44s

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

Port state     = Up Mstr In-Bndl
Channel group = 14           Mode = Automatic-Sl   Gcchange = 0
Port-channel  = Po14         GC   = 0x000E0001     Pseudo port-channel =
Po14
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   SAC   U6/S7   HQ      30s      1       128        Any      33

Partner's information:

          Partner                Partner              Partner          Partner
Group
Port     Name                   Device ID           Port        Age Flags
Cap.
Fa0/18   ASW2                   0015.fab8.2880      Fa0/18      21s SC
20001

Age of the port in the current state: 0d:01h:40m:46s

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

Port-channel: Po14
------------

Age of the Port-channel   = 0d:01h:40m:55s
Logical slot/port   = 1/2          Number of ports = 3
GC                  = 0x000E0001      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  Automatic-Sl       0
  0     00    Fa0/17  Automatic-Sl       0
  0     00    Fa0/18  Automatic-Sl       0

Time since last port bundled:    0d:01h:40m:47s    Fa0/18

DSW1#
```

```
DSW1#show standby
Vlan10 - Group 10
  State is Active
    2 state changes, last state change 01:39:56
  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 0.512 secs
  Preemption enabled
  Active router is local
  Standby router is 10.2.1.2, priority 20 (expires in 8.812 sec)
  Priority 110 (configured 110)
  IP redundancy name is "hsrp-Vl10-10" (default)
DSW1#
```

```
DSW1#show standby brief
                     P indicates configured to preempt.
                     |
Interface   Grp Prio P State   Active          Standby         Virtual
IP
Vl10        10  110  P Active  local           10.2.1.2
10.2.1.254
DSW1#
```

```
DSW1#show spanning-tree inconsistentports

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

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

DSW1#
```

```
DSW1#show spanning-tree summary
Switch is in rapid-pvst mode
Root bridge for: VLAN0010, VLAN0200
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                      0         0        0          2          2
---------------------- -------- --------- -------- ---------- ----------
3 vlans                       0         0        0          4          4
DSW1#
```

```
DSW1#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
DSW1#
```

```
DSW1#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)
13     Po13(SU)      LACP        Fa0/19(P)    Fa0/20(P)    Fa0/21(P)
14     Po14(SU)      PAgP        Fa0/16(P)    Fa0/17(P)    Fa0/18(P)

DSW1#
```

```
DSW1#show etherchannel protocol
                Channel-group listing:
                ----------------------

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

Group: 13
----------
Protocol:  LACP

Group: 14
----------
Protocol:  PAgP

DSW1#
```

```
DSW1#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:41m:13s

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:41m:13s
```

```
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:41m:14s


Group: 13
----------
                Ports in the group:
                -------------------
Port: Fa0/19
------------

Port state    = Up Mstr Assoc In-Bndl
Channel group = 13           Mode = Active       Gcchange = -
Port-channel  = Po13         GC   =   -          Pseudo port-channel =
Po13
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         0xD       0xD      0x10
0x3D

Partner's information:

                   LACP port                        Admin  Oper   Port
Port
Port         Flags   Priority  Dev ID         Age    key    Key    Number
State
Fa0/19       SP      32768     0015.faac.46c0  8s    0x0    0x1    0x13
0x3C

Age of the port in the current state: 0d:01h:41m:57s

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

Port state    = Up Mstr Assoc In-Bndl
Channel group = 13           Mode = Active       Gcchange = -
```

```
Port-channel  = Po13          GC   =   -            Pseudo port-channel =
Po13
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        0xD      0xD     0x11
0x3D

Partner's information:

                LACP port                            Admin  Oper   Port
Port
Port        Flags   Priority  Dev ID        Age     key    Key    Number
State
Fa0/20      SP      32768     0015.faac.46c0  12s   0x0    0x1    0x14
0x3C

Age of the port in the current state: 0d:01h:41m:59s

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

Port state    = Up Mstr Assoc In-Bndl
Channel group = 13            Mode = Active        Gcchange = -
Port-channel  = Po13          GC   =   -            Pseudo port-channel =
Po13
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        0xD      0xD     0x12
0x3D

Partner's information:

                LACP port                            Admin  Oper   Port
Port
```

```
Port       Flags   Priority Dev ID          Age     key    Key     Number
State
Fa0/21     SP      32768    0015.faac.46c0  4s      0x0    0x1     0x15
0x3C

Age of the port in the current state: 0d:01h:41m:59s


Group: 14
----------
              Ports in the group:
              -------------------
Port: Fa0/16
------------

Port state    = Up Mstr In-Bndl
Channel group = 14            Mode = Automatic-Sl   Gcchange = 0
Port-channel  = Po14          GC   = 0x000E0001     Pseudo port-channel =
Po14
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     SAC   U6/S7   HQ     30s      1        128      Any      33

Partner's information:

           Partner                 Partner          Partner          Partner
Group
Port       Name                    Device ID        Port       Age  Flags
Cap.
Fa0/16     ASW2                    0015.fab8.2880   Fa0/16     10s  SC
20001

Age of the port in the current state: 0d:01h:42m:02s

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

Port state    = Up Mstr In-Bndl
Channel group = 14            Mode = Automatic-Sl   Gcchange = 0
```

```
Port-channel   = Po14          GC    = 0x000E0001      Pseudo port-channel =
Po14
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    SAC   U6/S7   HQ      30s      1       128        Any       33

Partner's information:

          Partner                 Partner             Partner           Partner
Group
Port      Name                    Device ID           Port        Age  Flags
Cap.
Fa0/17    ASW2                    0015.fab8.2880    Fa0/17       3s SC
20001

Age of the port in the current state: 0d:01h:42m:03s

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

Port state    = Up Mstr In-Bndl
Channel group = 14             Mode = Automatic-Sl    Gcchange = 0
Port-channel  = Po14           GC    = 0x000E0001      Pseudo port-channel =
Po14
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     SAC   U6/S7   HQ        30s       1         128        Any      33

Partner's information:

          Partner                Partner            Partner          Partner
Group
Port      Name                   Device ID          Port      Age  Flags
Cap.
Fa0/18    ASW2                   0015.fab8.2880     Fa0/18     15s SC
20001

Age of the port in the current state: 0d:01h:42m:05s


DSW1#
```

```
DSW1#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

DSW1#
```

```
DSW1#show etherchannel port-channel
                Channel-group listing:
```

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

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

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

Age of the Port-channel   = 0d:01h:42m:29s
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:41m:37s    Fa0/24
Time since last port Un-bundled: 0d:01h:41m:39s    Fa0/24

Group: 13
----------
                 Port-channels in the group:
                 --------------------------

Port-channel: Po13     (Primary Aggregator)

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

Age of the Port-channel   = 0d:01h:42m:30s
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:42m:21s    Fa0/21
```

```
Group: 14
----------
              Port-channels in the group:
              ---------------------------

Port-channel: Po14
------------

Age of the Port-channel    = 0d:01h:42m:30s
Logical slot/port   = 1/2          Number of ports = 3
GC                  = 0x000E0001       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   Automatic-Sl         0
  0     00     Fa0/17   Automatic-Sl         0
  0     00     Fa0/18   Automatic-Sl         0

Time since last port bundled:    0d:01h:42m:23s     Fa0/18

DSW1#
```

```
DSW1#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 14 neighbors
            Partner              Partner          Partner          Partner
Group
Port        Name                 Device ID        Port       Age  Flags
Cap.
Fa0/16      ASW2                 0015.fab8.2880   Fa0/16     12s SC
20001
Fa0/17      ASW2                 0015.fab8.2880   Fa0/17      3s SC
20001
Fa0/18      ASW2                 0015.fab8.2880   Fa0/18     13s SC
20001
DSW1#
```

```
DSW1#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 13 neighbors

Partner's information:

                    LACP port                      Admin  Oper  Port
Port
Port        Flags  Priority  Dev ID          Age   key    Key   Number
State
Fa0/19      SP     32768     0015.faac.46c0  19s   0x0    0x1   0x13
0x3C
Fa0/20      SP     32768     0015.faac.46c0  23s   0x0    0x1   0x14
0x3C
Fa0/21      SP     32768     0015.faac.46c0  15s   0x0    0x1   0x15
0x3C
DSW1#
```

```
DSW1#show port-security
Secure Port  MaxSecureAddr  CurrentAddr  SecurityViolation  Security
Action
                 (Count)        (Count)        (Count)
------------------------------------------------------------------------
--
     Fa0/2               2              0                   0
Shutdown
------------------------------------------------------------------------
--
Total Addresses in System (excluding one mac per port)     : 0
Max Addresses limit in System (excluding one mac per port) : 5120
DSW1#
```

```
DSW1#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
DSW1#
DSW1#
```