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

Current configuration : 6892 bytes
!
! Last configuration change at 20:31:19 UTC Thu Jun 3 2010
! NVRAM config last updated at 20:43:25 UTC Thu Jun 3 2010
!
version 12.2
no service pad
service timestamps debug uptime
service timestamps log uptime
no service password-encryption
!
hostname DSW1
!
no logging console
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
 metric weights 0 1 1 1 1 1
 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
!
ntp clock-period 17179877
ntp server 10.1.1.1
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 0 percent (0/5)
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 0 percent (0/5)
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 0 percent (0/5)
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 0 percent (0/5)
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 0 percent (0/5)
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 0 percent (0/5)
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 0 percent (0/5)
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 0 percent (0/5)
```

```
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 0 percent (0/5)
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 = 4/4/4 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 0 percent (0/5)
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 = 1/1/4 ms
```

```
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 = 1/2/4 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 = 1/1/4 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 = 1/1/4 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 = 1/1/1 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 = 4/4/4 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 = 1/1/4 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 = 4/4/4 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 = 4/4/4 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 not set

     10.0.0.0/8 is variably subnetted, 5 subnets, 2 masks
C       10.2.4.12/30 is directly connected, Port-channel12
D       10.1.4.8/30 [90/111] via 10.2.2.1, 00:17:22, Vlan20
                    [90/111] via 10.2.1.2, 00:17:22, 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
DSW1#
```

```
DSW1#show processes cpu
CPU utilization for five seconds: 0%/0%; one minute: 0%; five minutes: 1%
 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        324          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       1432        195       7343  0.00%  0.08%  0.06%   0 Check
heaps
   5          4          4       1000  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        108        333  0.00%  0.00%  0.00%   0 ARP Input
   9          4          1       4000  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         12          3       4000  0.00%  0.00%  0.00%   0 Entity MIB
API
  14          0          1          0  0.00%  0.00%  0.00%   0 IFS Agent
Manage
  15          0         28          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       1633          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       1633          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       1633          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	8	1615	4	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	12	2800	4	0.00%	0.00%	0.00%	0 Net Background
29	12	15	800	0.00%	0.00%	0.00%	0 IDB Work
30	8	425	18	0.00%	0.00%	0.00%	0 Logger
31	0	1611	0	0.00%	0.00%	0.00%	0 TTY Background
32	0	1623	0	0.00%	0.00%	0.00%	0 Per-Second Jobs
33	216	29	7448	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	60	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	325	0	0.00%	0.00%	0.00%	0 Compute load avg
38	0	487	0	0.00%	0.00%	0.00%	0 HC Counter Timer
39	0	1596	0	0.00%	0.00%	0.00%	0 Vegas Storm Cont
40	0	22	0	0.00%	0.00%	0.00%	0 SpanTree Helper
41	4	30987	0	0.00%	0.00%	0.00%	0 DownWhenLooped
42	0	5	0	0.00%	0.00%	0.00%	0 Collection proce
43	12	40358	0	0.00%	0.00%	0.00%	0 Vegas LED Proces
44	0	1	0	0.00%	0.00%	0.00%	0 SCQ_PROCESS
45	48	12251	3	0.00%	0.00%	0.00%	0 RAM Access
46	0	16693	0	0.00%	0.00%	0.00%	0 SW Frame Ager
47	16	43	372	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	3231	0	0.00%	0.00%	0.00%	0 L2TM Process
50	0	3232	0	0.00%	0.00%	0.00%	0 L3TM
51	6844	4789	1429	0.47%	0.42%	0.40%	0 Vegas Statistics
52	0	22403	0	0.00%	0.00%	0.00%	0 HMATM Learn proc

```
   53          0        1618          0   0.00%   0.00%   0.00%        0 HMATM Age
proces
   54         40          59        677   0.00%   0.00%   0.00%        0 VL2MM
   55          0        1644          0   0.00%   0.00%   0.00%        0 L3MD
   56         60        4050         14   0.00%   0.00%   0.00%        0 L3MD_STAT
   57          0           1          0   0.00%   0.00%   0.00%        0 Vegas
Bridging
   58        616       20186         30   0.00%   0.00%   0.00%        0 VegasPM
   59          8         870          9   0.00%   0.00%   0.00%        0 VUR_MGR bg
proce
   60          0        1618          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          28          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          4           2       2000   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           7          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         48         672         71   0.00%   0.00%   0.00%        0 DTP
Protocol
   69          0           1          0   0.00%   0.00%   0.00%        0 EAP
Framework
   70          0          29          0   0.00%   0.00%   0.00%        0 Port-
Security
   71       3652         811       4503   0.39%   0.17%   0.44%        0 Exec
   72          4          35        114   0.00%   0.00%   0.00%        0 Switch IP
Host T
   73          0         164          0   0.00%   0.00%   0.00%        0 Ethchnl
   74          0        1619          0   0.00%   0.00%   0.00%        0 UDLD
   75          0           1          0   0.00%   0.00%   0.00%        0 Vegas IPSG
Proce
   76          0          24          0   0.00%   0.00%   0.00%        0 VMATM
Callback
   77          0          51          0   0.00%   0.00%   0.00%        0 HL3U PBR
bkgrd p
   78          0          14          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	6	0	0.00%	0.00%	0.00%	0	IP Admin SM Proc
85	156	745	209	0.00%	0.00%	0.00%	0	CDP Protocol
86	0	8	0	0.00%	0.00%	0.00%	0	SpanTree Flush
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	14	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	544	3128	173	0.07%	0.01%	0.00%	0	IP Input
92	0	1	0	0.00%	0.00%	0.00%	0	ICMP event handl
93	0	3164	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	100	4049	24	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	30	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	23	0	0.00%	0.00%	0.00%	0	Cluster L2
101	0	163	0	0.00%	0.00%	0.00%	0	Cluster RARP
102	84	440	190	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	8	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	12	46	260	0.00%	0.00%	0.00%	0	L2MM
110	8	135	59	0.00%	0.00%	0.00%	0	MRD
111	52	148	351	0.00%	0.00%	0.00%	0	IGMPSN
112	0	1	0	0.00%	0.00%	0.00%	0	IGMPQR
113	0	2	0	0.00%	0.00%	0.00%	0	L2TRACE SERVER
114	0	1	0	0.00%	0.00%	0.00%	0	Vegas wccp manag
115	0	4	0	0.00%	0.00%	0.00%	0	Crypto ACL
116	40	38	1052	0.00%	0.00%	0.00%	0	IP RIB Update

117	20	14	1428	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	14	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	4	2	2000	0.00%	0.00%	0.00%	0	ENABLE AAA
123	0	2	0	0.00%	0.00%	0.00%	0	LINE AAA
125	0	2	0	0.00%	0.00%	0.00%	0	TPLUS
126	0	1	0	0.00%	0.00%	0.00%	0	CRYPTO QoS proce
127	0	1	0	0.00%	0.00%	0.00%	0	Crypto INT
128	4	4	1000	0.00%	0.00%	0.00%	0	Crypto IKMP
129	96	84	1142	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	4	1	4000	0.00%	0.00%	0.00%	0	Crypto PAS Proc
132	0	12	0	0.00%	0.00%	0.00%	0	crypto engine pr
133	28	4	7000	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	1625	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	8	3971	2	0.00%	0.00%	0.00%	0	PM Callback
141	36	17	2117	0.00%	0.00%	0.00%	0	VLAN Manager
142	0	444	0	0.00%	0.00%	0.00%	0	DHCPD Database
143	0	131	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	4	1	4000	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	0	218	0	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	4	2	2000	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	4	3	1333	0.00%	0.00%	0.00%	0	SSH Event handle
161	0	22	0	0.00%	0.00%	0.00%	0	IPv6 RIB Redistr
162	16	2472	6	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	102	78	0.00%	0.00%	0.00%	0	IP Background
165	1172	10	117200	0.00%	0.00%	0.00%	0	crypto sw pk pro
166	8	149	53	0.00%	0.00%	0.00%	0	IPv6 Input
167	4	127	31	0.00%	0.00%	0.00%	0	IPv6 IDB
168	0	10	0	0.00%	0.00%	0.00%	0	IPv6 ND
169	8	257	31	0.00%	0.00%	0.00%	0	IPv6 RIP
170	0	1629	0	0.00%	0.00%	0.00%	0	DVMRP Timers
171	56	1798	31	0.00%	0.00%	0.00%	0	IGMP Input
172	44	2137	20	0.00%	0.00%	0.00%	0	PIM Process
173	4	16251	0	0.00%	0.00%	0.00%	0	Mwheel Process
174	76	377	201	0.00%	0.00%	0.00%	0	PAgP
175	80	557	143	0.00%	0.00%	0.00%	0	LACP Protocol
176	32	1098	29	0.00%	0.00%	0.00%	0	HSRP (Standby)
178	4	1660	2	0.00%	0.00%	0.00%	0	NTP
179	0	27	0	0.00%	0.00%	0.00%	0	EIGRP: Router
180	516	2320	222	0.00%	0.01%	0.00%	0	EIGRP-IPv4:
181	8	1604	4	0.00%	0.00%	0.00%	0	OSPF-1 Router

```
 182           96        2759          34  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 00:00:00, 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: 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
     1483 packets input, 123662 bytes, 0 no buffer
     Received 0 broadcasts (353 IP multicasts)
     0 runts, 0 giants, 0 throttles
     0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
     1173 packets output, 82421 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 00:00:02, 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: 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
     436 packets input, 35531 bytes, 0 no buffer
     Received 0 broadcasts (353 IP multicasts)
     0 runts, 0 giants, 0 throttles
     0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
     459 packets output, 35601 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 00:25:46, output 00:26:38, 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 00:00:04, output 00:00:04, 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
      999 packets input, 91303 bytes, 0 no buffer
      Received 524 broadcasts (383 IP multicasts)
      0 runts, 0 giants, 0 throttles
      0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
      0 watchdog, 522 multicast, 0 pause input
      0 input packets with dribble condition detected
      1107 packets output, 110451 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 00:27:15, 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 00:00:02, 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
     1603 packets input, 131332 bytes, 0 no buffer
     Received 1411 broadcasts (0 multicasts)
     0 runts, 0 giants, 0 throttles
     0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
     0 watchdog, 1408 multicast, 0 pause input
     0 input packets with dribble condition detected
     789 packets output, 71907 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 00:00:03, 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
```

```
     319 packets input, 32961 bytes, 0 no buffer
     Received 153 broadcasts (0 multicasts)
     0 runts, 0 giants, 0 throttles
     0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
     0 watchdog, 153 multicast, 0 pause input
     0 input packets with dribble condition detected
     322 packets output, 32008 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 00:00:05, output 00:00:06, output hang never
  Last clearing of "show interface" counters never
  Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
  Queueing strategy: fifo
  Output queue: 0/40 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
     320 packets input, 33051 bytes, 0 no buffer
     Received 154 broadcasts (0 multicasts)
     0 runts, 0 giants, 0 throttles
     0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
     0 watchdog, 154 multicast, 0 pause input
     0 input packets with dribble condition detected
     1187 packets output, 94404 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 00:00:07, 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
       715 packets input, 70248 bytes, 0 no buffer
       Received 152 broadcasts (0 multicasts)
       0 runts, 0 giants, 0 throttles
       0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
       0 watchdog, 152 multicast, 0 pause input
       0 input packets with dribble condition detected
       1610 packets output, 136751 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 00:00:08, 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 1000 bits/sec, 1 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
     1866 packets input, 170562 bytes, 0 no buffer
     Received 1664 broadcasts (0 multicasts)
     0 runts, 0 giants, 0 throttles
     0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
     0 watchdog, 1474 multicast, 0 pause input
     0 input packets with dribble condition detected
     396 packets output, 40268 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 00:00:03, 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
      318 packets input, 35329 bytes, 0 no buffer
      Received 153 broadcasts (0 multicasts)
      0 runts, 0 giants, 0 throttles
      0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
      0 watchdog, 153 multicast, 0 pause input
      0 input packets with dribble condition detected
      1987 packets output, 154490 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 00:00:02, 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
      757 packets input, 70087 bytes, 0 no buffer
      Received 495 broadcasts (0 multicasts)
      0 runts, 0 giants, 0 throttles
      0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
      0 watchdog, 492 multicast, 0 pause input
      0 input packets with dribble condition detected
      782 packets output, 76810 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 00:00:04, 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
      193 packets input, 22768 bytes, 0 no buffer
      Received 31 broadcasts (0 multicasts)
      0 runts, 0 giants, 0 throttles
      0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
      0 watchdog, 31 multicast, 0 pause input
      0 input packets with dribble condition detected
      198 packets output, 23416 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 00:00:05, output 00:00:04, 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
      194 packets input, 22832 bytes, 0 no buffer
      Received 31 broadcasts (0 multicasts)
      0 runts, 0 giants, 0 throttles
      0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
      0 watchdog, 31 multicast, 0 pause input
      0 input packets with dribble condition detected
      198 packets output, 23416 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 00:00:00, output 00:00:04, 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
      1148 packets input, 115969 bytes, 0 no buffer
      Received 559 broadcasts (375 IP multicasts)
      0 runts, 0 giants, 0 throttles
      0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
      0 watchdog, 557 multicast, 0 pause input
      0 input packets with dribble condition detected
      1180 packets output, 123914 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 00:07:25, 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
      2897 packets input, 275705 bytes, 0 no buffer
      Received 1961 broadcasts (0 multicasts)
      0 runts, 0 giants, 0 throttles
      0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
      0 watchdog, 1771 multicast, 0 pause input
      0 input packets with dribble condition detected
      3995 packets output, 331105 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 00:00:01, output 00:00:01, output hang never
  Last clearing of "show interface" counters never
  Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
  Queueing strategy: fifo
  Output queue: 0/40 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
     2253 packets input, 198182 bytes, 0 no buffer
     Received 1723 broadcasts (0 multicasts)
     0 runts, 0 giants, 0 throttles
     0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
     0 watchdog, 1720 multicast, 0 pause input
     0 input packets with dribble condition detected
     2305 packets output, 198851 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 00:00:12, output 00:00:09, output hang never
  Last clearing of "show interface" counters never
  Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
  Queueing strategy: fifo
  Output queue: 0/0 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
     66 packets input, 9556 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
     69 packets output, 7852 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 00:00:20, output 00:00:10, 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
       59 packets input, 5664 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
       76 packets output, 11412 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
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
Fa0/8	0	0	0	0	0	0
Fa0/9	0	0	0	0	0	0
Fa0/10	0	0	0	0	0	0
Fa0/11	0	0	0	0	0	0
Fa0/12	0	0	0	0	0	0
Fa0/13	0	0	0	0	0	0
Fa0/14	0	0	0	0	0	0
Fa0/15	0	0	0	0	0	0
Fa0/16	0	0	0	0	0	0
Fa0/17	0	0	0	0	0	0
Fa0/18	0	0	0	0	0	0
Fa0/19	0	0	0	0	0	0
Fa0/20	0	0	0	0	0	0
Fa0/21	0	0	0	0	0	0
Fa0/22	0	0	0	0	0	0
Fa0/23	0	0	0	0	0	0
Fa0/24	0	0	0	0	0	0
Gi0/1	0	0	0	0	0	0
Gi0/2	0	0	0	0	0	0
Po12	0	0	0	0	0	0
Po13	0	0	0	0	0	0
Po14	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           167          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          140           S I      WS-C2950- Fas
0/21
ASW1               Fas 0/19          140           S I      WS-C2950- Fas
0/19
ASW1               Fas 0/20          140           S I      WS-C2950- Fas
0/20
ASW2               Fas 0/18          140           S I      WS-C2950- Fas
0/18
ASW2               Fas 0/17          140           S I      WS-C2950- Fas
0/17
```

```
ASW2              Fas 0/16           140           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 : 160 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 : 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: FastEthernet0/23,  Port ID (outgoing port): FastEthernet0/23
Holdtime : 140 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 : 140 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 : 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=00000000FFFFFFFF0102250100000000000000015FAAC46C0FF0000
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 : 129 sec

Version :
Cisco Internetwork Operating System Software
IOS (tm) C2950 Software (C2950-I6Q4L2-M), Version 12.1(22)EA4a, RELEASE
SOFTWARE (fc1)
```

```
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 : 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

-------------------------
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 : 126 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             27     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              28     0019.5578.1cb2  ARPA
FastEthernet0/1
Internet  10.2.1.2              23     000b.fd20.ba00  ARPA   Vlan10
Internet  10.2.2.1              27     000b.fd20.ba00  ARPA   Vlan20
Internet  10.2.1.4               1     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            27     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             28     0019.5578.1cb2  ARPA
FastEthernet0/1
Internet  10.2.1.2             23     000b.fd20.ba00  ARPA   Vlan10
Internet  10.2.2.1             27     000b.fd20.ba00  ARPA   Vlan20
Internet  10.2.1.4             1      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           no route
0.0.0.0/32          receive
```

```
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
10.2.1.254/32        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=1, K3=1, K4=1, K5=1
  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         00:20:00
    10.1.4.5               90         00:23:00
    10.2.2.1               90         00:20:00
    10.2.1.2               90         00:20:00
  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, 5 subnets, 2 masks
D       10.1.4.8/30 [90/111] via 10.2.2.1, 00:20:15, Vlan20
                    [90/111] via 10.2.1.2, 00:20:15, Vlan10
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
2    10.2.4.14                Po12             11 00:20:21     1    200   0
86
1    10.2.2.1                 Vl20             12 00:20:23     1    200   0
88
0    10.2.1.2                 Vl10             14 00:20:23     1    200   0
87
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            0        0/0          0        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:00h:30m:45s

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:00h:30m:45s

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:00h:30m:45s

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

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

Age of the Port-channel   = 0d:00h:31m:37s
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:00h:30m:46s    Fa0/24
Time since last port Un-bundled: 0d:00h:30m:47s    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  8s     0x0    0x1     0x13
0x3C

Age of the port in the current state: 0d:00h:31m:28s


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  25s      0x0     0x1     0x14
0x3C

Age of the port in the current state: 0d:00h:31m:30s

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  19s     0x0     0x1     0x15
0x3C


Age of the port in the current state: 0d:00h:31m:30s

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


Port-channel: Po13     (Primary Aggregator)

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

Age of the Port-channel   = 0d:00h:31m:42s
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:00h:31m:31s     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:00h:31m:36s

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     8s SC
20001
```

```
Age of the port in the current state: 0d:00h:31m:36s

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       9s SC
20001

Age of the port in the current state: 0d:00h:31m:37s

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

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

Age of the Port-channel   = 0d:00h:31m:47s
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:00h:31m:39s    Fa0/18

DSW1#
```

```
DSW1#show standby
Vlan10 - Group 10
  State is Active
    2 state changes, last state change 00:30:50
  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 0.540 secs
```

```
  Preemption enabled
  Active router is local
  Standby router is 10.2.1.2, priority 20 (expires in 9.916 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:00h:37m:25s


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:00h:37m:25s


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:00h:37m:25s



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   25s    0x0     0x1    0x13
0x3C

Age of the port in the current state: 0d:00h:38m:07s

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  9s      0x0    0x1    0x14
0x3C
```

Age of the port in the current state: 0d:00h:38m:10s

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  1s      0x0    0x1    0x15
0x3C
```

Age of the port in the current state: 0d:00h:38m:09s

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       24s  SC
20001

Age of the port in the current state: 0d:00h:38m:14s

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    11s SC
20001

Age of the port in the current state: 0d:00h:38m:14s

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     0s SC
20001

Age of the port in the current state: 0d:00h:38m:16s


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:00h:38m:39s
Logical slot/port   = 1/0            Number of ports = 3
GC                  = 0x00000000       HotStandBy port = null
Passive port list   = Fa0/22 Fa0/23 Fa0/24
Port state          = Port-channel L3-Ag Ag-Inuse
Protocol            =     -
Port security       = Disabled

Ports in the Port-channel:

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

```
Time since last port bundled:     0d:00h:37m:47s     Fa0/24
Time since last port Un-bundled: 0d:00h:37m:49s     Fa0/24


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


Port-channel: Po13     (Primary Aggregator)

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

Age of the Port-channel   = 0d:00h:38m:40s
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:00h:38m:29s     Fa0/21


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


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

Age of the Port-channel   = 0d:00h:38m:40s
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:00h:38m:32s     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        22s  SC
20001
Fa0/17    ASW2                 0015.fab8.2880       Fa0/17        10s  SC
20001
Fa0/18    ASW2                 0015.fab8.2880       Fa0/18        22s  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 State	Flags	Priority	Dev ID	Age	key	Key	Number	
Fa0/19 0x3C	SP	32768	0015.faac.46c0	6s	0x0	0x1	0x13	
Fa0/20 0x3C	SP	32768	0015.faac.46c0	18s	0x0	0x1	0x14	

```
Fa0/21    SP      32768     0015.faac.46c0  10s    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#
```