```
DSW2#
DSW2#show running-config
Building configuration...
Current configuration: 5972 bytes
! No configuration change since last restart
1
version 12.2
no service pad
service timestamps debug uptime
service timestamps log uptime
no service password-encryption
hostname DSW2
1
no aaa new-model
ipv6 unicast-routing
ip subnet-zero
ip routing
ip multicast-routing
vtp domain netlearning
vtp mode transparent
!
crypto pki trustpoint TP-self-signed-4246780416
 enrollment selfsigned
 subject-name cn=IOS-Self-Signed-Certificate-4246780416
 revocation-check none
 rsakeypair TP-self-signed-4246780416
crypto pki certificate chain TP-self-signed-4246780416
 certificate self-signed 01
  3082023D 308201A6 A0030201 02020101 300D0609 2A864886 F70D0101 04050030
  31312F30 2D060355 04031326 494F532D 53656C66 2D536967 6E65642D 43657274
  69666963 6174652D 34323436 37383034 3136301E 170D3933 30333031 30303031
  30345A17 0D323030 31303130 30303030 305A3031 312F302D 06035504 03132649
  4F532D53 656C662D 5369676E 65642D43 65727469 66696361 74652D34 32343637
  38303431 3630819F 300D0609 2A864886 F70D0101 01050003 818D0030 81890281
  8100D699 D2A8BD0D A26CE645 B2CE1EC4 EF83204E CBA4D34A B03BC30C 7BF013B1
  5BDEC621 F3CE12CC BC929D9C 463A59DC D49CEF76 3D5193FD 7992F7FF 660F179F
  54CA6370 902081BB ABB71246 5DC79E39 D241B749 11CB4812 07CF1238 A25C59F6
  740464A7 6B3EAE02 6B6B0C13 9B534C70 85BD199E E52D4FB2 AB4C4B5F 678ECD24
  17B30203 010001A3 65306330 0F060355 1D130101 FF040530 030101FF 30100603
  551D1104 09300782 05445357 322E301F 0603551D 23041830 168014A7 8C27C43F
  00BEB401 3F63B68A 9CD582EF D7B15430 1D060355 1D0E0416 0414A78C 27C43F00
  BEB4013F 63B68A9C D582EFD7 B154300D 06092A86 4886F70D 01010405 00038181
  00B9A060 055A57EE 0EE7C450 128718FA 07A5DCE4 8EABE33F 56BA385F 8F9477E8
  191A361C EBEFB296 6A2E4637 11BB4D89 CDFA4DDB 7229B8F1 856DCE18 DF11CA57
  180C3686 28E9079C F004E71B A9F11040 7C952427 573ED2F5 AB38C4D9 768156A4
```

```
C597E2E3 B9D4C611 F902BEA8 A18209DD 239160AE E6AC24DE 41AD980B 261778F5
AA
  quit
1
spanning-tree mode pvst
spanning-tree extend system-id
spanning-tree vlan 10,200 priority 8192
spanning-tree vlan 20 priority 4096
vlan internal allocation policy ascending
vlan 10,20,200
!
interface Tunnel67
 no ip address
 ipv6 address 2026::3:2/122
 ipv6 enable
 ipv6 rip RIPNG enable
 tunnel source 10.2.4.14
 tunnel destination 10.2.4.13
interface Port-channel12
 no switchport
 ip address 10.2.4.14 255.255.255.252
ip pim sparse-dense-mode
interface Port-channel23
 switchport trunk encapsulation dot1q
 switchport trunk allowed vlan 10,200
 switchport mode trunk
interface Port-channel24
 switchport trunk encapsulation dot1q
 switchport trunk allowed vlan 20,200
 switchport mode trunk
interface FastEthernet0/1
no switchport
 ip address 10.1.4.10 255.255.255.252
ip pim sparse-dense-mode
interface FastEthernet0/2
 switchport mode access
 shutdown
interface FastEthernet0/3
 switchport mode access
```

```
interface FastEthernet0/4
 switchport mode access
shutdown
interface FastEthernet0/5
 switchport mode access
shutdown
interface FastEthernet0/6
 switchport mode access
shutdown
interface FastEthernet0/7
 switchport mode access
shutdown
interface FastEthernet0/8
 switchport mode access
shutdown
interface FastEthernet0/9
switchport mode access
shutdown
interface FastEthernet0/10
 switchport mode access
shutdown
interface FastEthernet0/11
 switchport mode access
shutdown
interface FastEthernet0/12
 switchport mode access
shutdown
interface FastEthernet0/13
switchport mode access
shutdown
interface FastEthernet0/14
 switchport mode access
shutdown
interface FastEthernet0/15
switchport mode access
interface FastEthernet0/16
 switchport trunk encapsulation dot1q
 switchport trunk allowed vlan 20,200
switchport mode trunk
channel-group 24 mode desirable
```

```
interface FastEthernet0/17
 switchport trunk encapsulation dot1q
 switchport trunk allowed vlan 20,200
 switchport mode trunk
channel-group 24 mode desirable
interface FastEthernet0/18
 switchport trunk encapsulation dot1q
 switchport trunk allowed vlan 20,200
 switchport mode trunk
channel-group 24 mode desirable
interface FastEthernet0/19
 switchport trunk encapsulation dot1q
 switchport trunk allowed vlan 10,200
 switchport mode trunk
channel-group 23 mode active
interface FastEthernet0/20
 switchport trunk encapsulation dot1q
 switchport trunk allowed vlan 10,200
 switchport mode trunk
channel-group 23 mode active
interface FastEthernet0/21
 switchport trunk encapsulation dot1q
 switchport trunk allowed vlan 10,200
switchport mode trunk
channel-group 23 mode active
interface FastEthernet0/22
no switchport
no ip address
channel-group 12 mode on
interface FastEthernet0/23
no switchport
no ip address
channel-group 12 mode on
interface FastEthernet0/24
no switchport
no ip address
channel-group 12 mode on
interface GigabitEthernet0/1
switchport mode dynamic desirable
shutdown
interface GigabitEthernet0/2
 switchport mode dynamic desirable
shutdown
interface Vlan1
```

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

ntp clock-period 17179871
ntp server 10.1.1.1
end

DSW2#

```
DSW2#
DSW2#ping 209.65.200.241
```

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

DSW2#ping 209.65.200.226

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

DSW2#ping 209.65.200.225

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

Type escape sequence to abort.

Sending 5, 100-byte ICMP Echos to 10.1.1.1, timeout is 2 seconds:
!!!!!

Success rate is 100 percent (5/5), round-trip min/avg/max = 128/129/132
ms
DSW2#

Type escape sequence to abort. Sending 5, 100-byte ICMP Echos to 10.1.1.2, timeout is 2 seconds: !!!!! Success rate is 100 percent (5/5), round-trip min/avg/max = 64/67/76 ms DSW2#

Type escape sequence to abort. Sending 5, 100-byte ICMP Echos to 10.1.1.5, timeout is 2 seconds: !!!!! Success rate is 100 percent (5/5), round-trip $\min/avg/max = 64/67/72 ms$ DSW2#

DSW2#ping 10.1.1.6

Type escape sequence to abort.

Sending 5, 100-byte ICMP Echos to 10.1.1.6, timeout is 2 seconds:
!!!!!

Success rate is 100 percent (5/5), round-trip min/avg/max = 128/130/132
ms
DSW2#

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 10.1.1.9, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 128/130/132
ms
DSW2#

Type escape sequence to abort.

Sending 5, 100-byte ICMP Echos to 10.1.1.10, timeout is 2 seconds:
!!!!!

Success rate is 100 percent (5/5), round-trip min/avg/max = 192/196/208
ms
DSW2#

Type escape sequence to abort. Sending 5, 100-byte ICMP Echos to 10.1.4.10, timeout is 2 seconds: !!!!! Success rate is 100 percent (5/5), round-trip min/avg/max = 192/194/196 ms DSW2#

Type escape sequence to abort.

Sending 5, 100-byte ICMP Echos to 10.1.4.9, timeout is 2 seconds:
!!!!!

Success rate is 100 percent (5/5), round-trip min/avg/max = 192/194/196
ms
DSW2#

DSW2#ping 10.1.4.6

Type escape sequence to abort. Sending 5, 100-byte ICMP Echos to 10.1.4.6, timeout is 2 seconds:

!!!!!

Success rate is 100 percent (5/5), round-trip min/avg/max = 192/194/196 ms DSW2#

DSW2#ping 10.1.4.5

Type escape sequence to abort.

Sending 5, 100-byte ICMP Echos to 10.1.4.5, timeout is 2 seconds:
!!!!!

Success rate is 100 percent (5/5), round-trip min/avg/max = 192/194/196
ms
DSW2#

Type escape sequence to abort. Sending 5, 100-byte ICMP Echos to 10.2.1.1, timeout is 2 seconds: !!!!! Success rate is 100 percent (5/5), round-trip min/avg/max = 192/195/196 ms DSW2#

Type escape sequence to abort. Sending 5, 100-byte ICMP Echos to 10.2.2.2, timeout is 2 seconds: !!!!! Success rate is 100 percent (5/5), round-trip min/avg/max = 192/250/316 ms DSW2#

Type escape sequence to abort. Sending 5, 100-byte ICMP Echos to 10.2.1.254, timeout is 2 seconds: !!!!! Success rate is 100 percent (5/5), round-trip min/avg/max = 192/195/196 ms DSW2#

Type escape sequence to abort.

Sending 5, 100-byte ICMP Echos to 10.2.4.14, timeout is 2 seconds:
!!!!!

Success rate is 100 percent (5/5), round-trip min/avg/max = 192/196/204
ms
DSW2#

DSW2#ping 10.2.4.13

Type escape sequence to abort.

Sending 5, 100-byte ICMP Echos to 10.2.4.13, timeout is 2 seconds:
!!!!!

Success rate is 100 percent (5/5), round-trip min/avg/max = 192/196/204
ms
DSW2#

Type escape sequence to abort.

Sending 5, 100-byte ICMP Echos to 10.2.1.2, timeout is 2 seconds:
!!!!!

Success rate is 100 percent (5/5), round-trip min/avg/max = 192/194/200
ms
DSW2#

Type escape sequence to abort.

Sending 5, 100-byte ICMP Echos to 10.2.2.1, timeout is 2 seconds:
!!!!!

Success rate is 100 percent (5/5), round-trip min/avg/max = 192/195/200
ms
DSW2#

Type escape sequence to abort.

Sending 5, 100-byte ICMP Echos to 10.2.1.4, timeout is 2 seconds:
!!!!!

Success rate is 100 percent (5/5), round-trip min/avg/max = 192/194/196
ms
DSW2#

DSW2#				
DSW2#show ip interface				
Interface	IP-Address	OK? Method	Status	
Protocol Vlan1	unassigned	YES NVRAM	administratively do	T.TD
down	ullassiglied	IES NVIVAM	administratively do	WII
Vlan10	10.2.1.2	YES NVRAM	up	
up			-	
Vlan20	10.2.2.1	YES NVRAM	up	
up				
Vlan200	192.168.1.130	YES NVRAM	up	
up FastEthernet0/1	10.1.4.10	YES NVRAM	up	
up	10.1.4.10	I DO IVVIOLI	чρ	
FastEthernet0/2	unassigned	YES unset	administratively do	wn
down	J		-	
FastEthernet0/3	unassigned	YES unset	down	
down				
FastEthernet0/4	unassigned	YES unset	administratively do	wn
down FastEthernet0/5	unassigned	YES unset	administratively do	T.TD
down	ullassiglied	IES unsec	administratively do	WII
FastEthernet0/6	unassigned	YES unset	administratively do	wn
down	3		-	
FastEthernet0/7	unassigned	YES unset	administratively do	wn
down				
FastEthernet0/8	unassigned	YES unset	administratively do	wn
down FastEthernet0/9	unassigned	YES unset	administratively do	T.TD
down	ullassighed	ies unset	administratively do	WII
FastEthernet0/10	unassigned	YES unset	administratively do	wn
down	J		-	
FastEthernet0/11	unassigned	YES unset	administratively do	wn
down				
FastEthernet0/12	unassigned	YES unset	administratively do	wn
down FastEthernet0/13	unassigned	YES unset	administratively do	พท
down	unabbignea	ILD dilbee	adminiberatively do	**11
FastEthernet0/14	unassigned	YES unset	administratively do	wn
down	-		_	
FastEthernet0/15	unassigned	YES unset	down	
down	, ,			
FastEthernet0/16	unassigned	YES unset	up	
up FastEthernet0/17	unassigned	YES unset	up	
up	aa.o.z.yca	110 011000	~14	
FastEthernet0/18	unassigned	YES unset	up	
up	-			

FastEthernet0/19	unassigned	YES unset	up
up FastEthernet0/20 up	unassigned	YES unset	up
FastEthernet0/21	unassigned	YES unset	up
FastEthernet0/22	unassigned	YES NVRAM	up
FastEthernet0/23	unassigned	YES NVRAM	up
up FastEthernet0/24	unassigned	YES NVRAM	up
up GigabitEthernet0/1 down	unassigned	YES unset	administratively down
GigabitEthernet0/2	unassigned	YES unset	administratively down
down Port-channel12	10.2.4.14	YES NVRAM	up
up Port-channel23	unassigned	YES unset	up
up Port-channel24	unassigned	YES unset	up
up Tunnel67	unassigned	YES NVRAM	up
up DSW2#			

```
DSW2#show ip route
Codes: C - connected, S - static, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
      N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
      E1 - OSPF external type 1, E2 - OSPF external type 2
       i - IS-IS, su - IS-IS summary, L1 - IS-IS level-1, L2 - IS-IS
level-2
      ia - IS-IS inter area, * - candidate default, U - per-user static
route
       o - ODR, P - periodic downloaded static route
Gateway of last resort is 10.1.4.9 to network 0.0.0.0
     10.0.0.0/8 is variably subnetted, 6 subnets, 2 masks
        10.2.4.12/30 is directly connected, Port-channel12
С
        10.1.1.8/30 [170/261120] via 10.1.4.9, 00:44:56, FastEthernet0/1
D EX
С
        10.1.4.8/30 is directly connected, FastEthernet0/1
        10.2.1.0/24 is directly connected, Vlan10
С
        10.2.2.0/24 is directly connected, Vlan20
        10.1.4.4/30 [90/28416] via 10.2.2.2, 00:44:56, Vlan20
                    [90/28416] via 10.2.1.1, 00:44:56, Vlan10
     192.168.1.0/27 is subnetted, 1 subnets
        192.168.1.128 is directly connected, Vlan200
D*EX 0.0.0.0/0 [170/261120] via 10.1.4.9, 00:44:56, FastEthernet0/1
DSW2#
```

FID Runtime(ms) Invoked uses 5sec 1min 5min TTY Process 1 0 0 9 0 0.00% 0.00% 0.00% 0.00% 0.00mk 0.00mk 0.00% 0.00% 0.00% 0.00% 0.00mk 0.00mk 0.00% 0.00% 0.00% 0.00mk 0.00% 0.00% 0.00mk 0.00% 0.00% 0.00% 0.00mk 0.00%	DSW2#show processes cpu										
1											
Manager 2 8 1245 6 0.00% 0.00% 0.00% 0 Load Meter 3 24 87 275 0.00% 0.00% 0.00% 0 Load Meter Helper 4 5472 737 7424 0.00% 0.00% 0.06% 0 Check heaps 5 0 4 0 0.00% 0.00% 0.00% 0 Pool Manager 6 0 2 0 0.00% 0.00% 0.00% 0 Timers 7 0 1 0 0.00% 0.00% 0.00% 0 Crash writer 8 24 241 99 0.00% 0.00% 0 Corsh 0 Crash API 10 0 1 0 0.00% 0.00% 0.00% 0 CFF MIB API 4 2 2000 0.00% 0.00% 0.00% 0 Policy Manager 12 0 1 0 0.00% 0.00%		,									
2	Manager										
Helper 4 5472 737 7424 0.00% 0.08% 0.06% 0 Check heaps 5 0 0 4 0 0.00% 0.00% 0.00% 0.00% 0 Pool Manager 6 0 0 2 0 0.00% 0.00% 0.00% 0.00% 0 Timers 7 0 0 1 0 0.00% 0.00% 0.00% 0.00% 0 Crash writer 8 24 241 99 0.00% 0.00% 0.00% 0 ARP Input 9 0 1 0 0.00% 0.00% 0.00% 0.00% 0 CEF MIB API 10 0 0 1 0 0.00% 0.00% 0.00% 0.00% 0 CEF MIB API 11 4 2 2 2000 0.00% 0.00% 0.00% 0 AAA high- capacit 12 0 0 1 0 0.00% 0.00% 0.00% 0 Policy Manager 13 12 3 4000 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% 0.00% 0 FPC Dynamic Cach 16 0 1 0 0.00% 0.00% 0.00% 0.00% 0 IPC Dynamic Cach 16 0 1 0 0.00% 0.00% 0.00% 0.00% 0 IPC Manager 17 0 6237 0 0.00% 0.00% 0.00% 0.00% 0 IPC Manager 17 0 6237 0 0.00% 0.00% 0.00% 0.00% 0 IPC Manager 17 0 6237 0 0.00% 0.00% 0.00% 0.00% 0 IPC Manager 17 0 6237 0 0.00% 0.00% 0.00% 0.00% 0 IPC Managed Time 18 0 1 0 0.00% 0.00% 0.00% 0.00% 0 IPC Managed Time 19 0 6238 0 0.00% 0.00% 0.00% 0.00% 0 IPC	-	8	1245	6	0.00%	0.00%	0.00%	0 Load Meter			
4 5472 737 7424 0.00% 0.08% 0.06% 0 Check heaps 5 0 4 0 0.00% 0.00% 0.00% 0 Pool Manager 6 0 2 0 0.00% 0.00% 0.00% 0 Timers 7 0 1 0 0.00% 0.00% 0.00% 0 Crash writer 8 24 241 99 0.00% 0.00% 0.00% 0 ARP Input 9 0 1 0 0.00% 0.00% 0.00% 0 ARP Input 9 0 1 0 0.00% 0.00% 0.00% 0 ARA high- API 1 4 2 2000 0.00% 0.00% 0.00% 0 AAA high- API 1 4 2 3 4000 0.00% 0.00% 0.00% 0 Entity MIB API 1 0 0.00% 0.00% 0.00% 0.00% <th< td=""><td>3</td><td>24</td><td>87</td><td>275</td><td>0.00%</td><td>0.00%</td><td>0.00%</td><td>0 SpanTree</td></th<>	3	24	87	275	0.00%	0.00%	0.00%	0 SpanTree			
heaps 5 0 4 0 0.00% 0.00% 0.00% 0 Pool Manager 6 0 2 0 0.00% 0.00% 0.00% 0.10% 0.00% <	Helper										
Manager 6 0 2 0 0.00% 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% 0.00% 0 Crash writer 8 24 241 99 0.00% 0.00% 0.00% 0 ARP Input 9 0 1 0 0.00% 0.00% 0.00% 0.00% 0 CEF MIB API 10 0 0 1 0 0.00% 0.00% 0.00% 0.00% 0 CEF MIB AAA_SERVER_DEADT 11 4 2 2000 0.00% 0.00% 0.00% 0 AAA high- capacit 12 0 1 0 0.00% 0.00% 0.00% 0.00% 0 Policy Manager 13 12 3 4000 0.00% 0.00% 0.00% 0 Policy Manage 14 0 1 0 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 0 105 0 0.00% 0.00% 0.00% 0 IPC Dynamic Cach 16 0 1 0 0.00% 0.00% 0.00% 0.00% 0 IPC Periodic Tim 18 0 1 0 0.00% 0.00% 0.00% 0.00% 0 IPC Managed Time 19 0 6238 0 0.00% 0.00% 0.00% 0 IPC Deferred Por 20 0 0 2 0 0.00% 0.00% 0.00% 0.00% 0 IPC Seat	4 5	5472	737	7424	0.00%	0.08%	0.06%	0 Check			
Manager 6 0 2 0 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% vriter 8 24 241 99 0.00% 0	_										
6 0 2 0 0.00% 0.00% 0.00% 0.10% 0.00%		0	4	0	0.00%	0.00%	0.00%	0 Pool			
7 0 1 0 0.00% 0.00% 0.00% 0 Crash writer 8 24 241 99 0.00% 0.00% 0.00% 0.4RP Input 9 0 1 0 0.00%	-										
writer 8 24 241 99 0.00%	-	-									
8 24 241 99 0.00% 0.00% 0.00% 0.00% 0.00K DEF MIB API 10 0 0 1 0 0.00% 0.00% 0.00% 0.00% 0.00K AAA_SERVER_DEADT 11 4 2 2000 0.00% 0.00% 0.00% 0.00% 0.00% 0.00K Manager 13 12 3 4000 0.00% 0.00% 0.00% 0.00% 0.00K API 14 0 1 0 0.00% 0.00% 0.00% 0.00% 0.00% 0.00K Manage 15 0 105 0 0.00% 0.00% 0.00% 0.00% 0.1FS Agent Manage 15 0 105 0 0.00% 0.00% 0.00% 0.00% 0.1PC Dynamic Cach 16 0 1 0 0.00% 0.00% 0.00% 0.00% 0.1PC Periodic Tim 18 0 1 0 0.00% 0.00% 0.00% 0.00% 0.1PC Managed Time 19 0 6238 0 0.00% 0.00% 0.00% 0.00% 0.1PC Deferred Por 20 0 0 2 0 0.00% 0.00% 0.00% 0.00% 0.1PC Seat	,	0	Τ	0	0.00%	0.00%	0.00%	U Crash			
9 0 1 0 0.00% 0.00		2.4	2.4.1	0.0	0 00%	0 00%	0 00%	O ADD Tabut			
API 10 0 1 0 0.00% 0.00% 0.00% 0.00% 0 AAA_SERVER_DEADT 11 4 2 2000 0.00% 0.00% 0.00% 0 AAA high- capacit 12 0 1 0 0.00% 0.00% 0.00% 0 Policy Manager 13 12 3 4000 0.00% 0.00% 0.00% 0 Entity MIB API 14 0 1 0 0.00% 0.00% 0.00% 0.00% 0 IFS Agent Manage 15 0 105 0 0.00% 0.00% 0.00% 0 IFC Dynamic Cach 16 0 1 0 0.00% 0.00% 0.00% 0 IPC Periodic Tim 18 0 6237 0 0.00% 0.00% 0.00% 0 IPC Managed Time 19 0 6238 0 0.00% 0.00% 0.00% 0 IPC Deferred Por 20 0 0 2 0 0.00% 0.00% 0.00% 0 IPC								_			
10 0 1 0 0.00% 0.00% 0.00% 0.00% 0 AAA_SERVER_DEADT 11 4 2 2000 0.00% 0.00% 0.00% 0 AAA high- capacit 12 0 1 0 0.00% 0.00% 0.00% 0.00% 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 0 105 0 0.00% 0.00% 0.00% 0 IPC Dynamic Cach 16 0 1 0 0.00% 0.00% 0.00% 0 IPC Manager 17 0 6237 0 0.00% 0.00% 0.00% 0 IPC Periodic Tim 18 0 1 0 0.00% 0.00% 0.00% 0.00% 0 IPC Managed Time 19 0 6238 0 0.00% 0.00% 0.00% 0 IPC Deferred Por 20 0 0 2 0 0.00% 0.00% 0.00% 0.00% 0 IPC	•	U	Т	U	0.00%	0.00%	0.00%	O CEF MID			
AAA_SERVER_DEADT 11		0	1	0	0.00%	0.00%	0.00%	0			
11 4 2 2000 0.00% 0.00% 0.00% 0 AAA high-capacit 12 0 1 0 0.00% 0.00% 0.00% 0.00% 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% 0.00% 0 IFS Agent Manage 15 0 105 0 0.00% 0.00% 0.00% 0.00% 0 IPC Dynamic Cach 16 0 1 0 0.00% 0.00% 0.00% 0 IPC Manager 17 0 6237 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 6238 0 0.00% 0.00% 0.00% 0 IPC Deferred Por 20 0 2 0 0.00% 0.00% 0.00% 0.00% 0 IPC	-	-	_	0	0.000	0.000	0.000				
Capacit 12 0 1 0 0.00% 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% 0.00% 0 IFS Agent Manage 15 0 105 0 0.00% 0.00% 0.00% 0 IPC Dynamic Cach 16 0 1 0 0.00% 0.00% 0.00% 0 IPC Manager 17 0 6237 0 0.00% 0.00% 0.00% 0 IPC Periodic Tim 18 0 1 0 0.00% 0.00% 0.00% 0.00% 0 IPC Managed Time 19 0 6238 0 0.00% 0.00% 0.00% 0 IPC Deferred Por 20 0 2 0 0.00% 0.00% 0.00% 0.00% 0 IPC Seat			2	2000	0.00%	0.00%	0.00%	0 AAA high-			
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 0 105 0 0.00% 0.00% 0.00% 0 IPC Dynamic Cach 16 0 1 0 0.00% 0.00% 0.00% 0 IPC Manager 17 0 6237 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 6238 0 0.00% 0.00% 0.00% 0 IPC Deferred Por 20 0 2 0 0.00% 0.00% 0.00% 0 IPC Seat								. ,			
13 12 3 4000 0.00% 0.00% 0.00% 0 Entity MIB API 14 0 1 0 0.00% 0.00% 0.00% 0.00% 0 IFS Agent Manage 15 0 105 0 0.00% 0.00% 0.00% 0.00% 0 IPC Dynamic Cach 16 0 1 0 0.00% 0.00% 0.00% 0.00% 0 IPC Manager 17 0 6237 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 6238 0 0.00% 0.00% 0.00% 0 IPC Deferred Por 20 0 2 0 0.00% 0.00% 0.00% 0.00% 0 IPC Seat	12	0	1	0	0.00%	0.00%	0.00%	0 Policy			
API 14 0 1 0 0.00% 0.00% 0.00% 0 IFS Agent Manage 15 0 105 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 6237 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 6238 0 0.00% 0.00% 0.00% 0 IPC Deferred Por 20 0 2 0 0.00% 0.00% 0.00% 0.00% 0 IPC Seat	Manager										
14 0 1 0 0.00% 0.00% 0.00% 0 IFS Agent Manage 15 0 105 0 0.00% 0.00% 0.00% 0 IPC Dynamic Cach 0 0 0.00% 0.00% 0.00% 0 IPC Zone Manager 0 0 0.00% 0.00% 0.00% 0 IPC Periodic Tim 0 0 0.00% 0.00% 0.00% 0 IPC Managed Time 0 0 0.00% 0.00% 0.00% 0 IPC Deferred Por 20 0 0 0.00% 0.00% 0.00% 0 IPC Seat	13	12	3	4000	0.00%	0.00%	0.00%	0 Entity MIB			
Manage 15 0 105 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 6237 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 6238 0 0.00% 0.00% 0.00% 0 IPC Deferred Por 20 0 2 0 0.00% 0.00% 0.00% 0 IPC Seat											
15 0 105 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 6237 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 6238 0 0.00% 0.00% 0.00% 0 IPC Deferred Por 20 0 2 0 0.00% 0.00% 0.00% 0 IPC Seat	- -	0	1	0	0.00%	0.00%	0.00%	0 IFS Agent			
Dynamic Cach 16 0 1 0 0.00% 0.00% 0.00% 0 IPC Zone Manager 17 0 6237 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 6238 0 0.00% 0.00% 0.00% 0 IPC Deferred Por 20 0 2 0 0.00% 0.00% 0.00% 0 IPC Seat	_	0	105		0 000	0 000	0 000	0 ==0			
16 0 1 0 0.00% 0.00% 0.00% 0 IPC Zone Manager 17 0 6237 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 6238 0 0.00% 0.00% 0.00% 0 IPC Deferred Por 20 0 2 0 0.00% 0.00% 0.00% 0 IPC Seat		0	105	0	0.00%	0.00%	0.00%	0 IPC			
Manager 17 0 6237 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 6238 0 0.00% 0.00% 0.00% 0 IPC Deferred Por 20 0 2 0 0.00% 0.00% 0.00% 0 IPC Seat	-	^	1	0	0 000	0 000	0 000	0 TDC 7000			
17 0 6237 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 6238 0 0.00% 0.00% 0.00% 0 IPC Deferred Por 20 0 2 0 0.00% 0.00% 0.00% 0 IPC Seat		U	Τ	U	0.00%	0.00%	0.00%	U IPC ZONE			
Periodic Tim 18	-	Λ	6237	0	0 00%	n nn%	0 00%	O TPC			
18 0 1 0 0.00% 0.00% 0.00% 0 IPC Managed Time 19 0 6238 0 0.00% 0.00% 0.00% 0 IPC Deferred Por 20 0 2 0 0.00% 0.00% 0.00% 0 IPC Seat	- '	O	0237	O	0.000	0.008	0.000	0 11 0			
Managed Time 19 0 6238 0 0.00% 0.00% 0.00% 0 IPC Deferred Por 20 0 2 0 0.00% 0.00% 0.00% 0 IPC Seat		0	1	0	0.00%	0.00%	0.00%	0 TPC			
19 0 6238 0 0.00% 0.00% 0.00% 0 IPC Deferred Por 20 0 2 0 0.00% 0.00% 0.00% 0 IPC Seat		ŭ	_	· ·	0.000	0.000	0.000	0 110			
20 0 0.00% 0.00% 0.00% 0 IPC Seat	_	0	6238	0	0.00%	0.00%	0.00%	0 IPC			
	Deferred Por										
Manager	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	4	6238	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	<u>-</u>
25	4	6220	0	0.00%	0.00%	0.00%	0	GraphIt
26	0	2	0	0.00%	0.00%	0.00%	0	XML Proxy
Client								
27	0	1	0	0.00%	0.00%	0.00%	0	Critical
Bkgnd								
28	44	8588	5	0.00%	0.00%	0.00%	0	Net
Background								
29	0	54	0	0.00%	0.00%	0.00%	0	IDB Work
30	28	204	137	0.00%	0.00%	0.00%	0	Logger
31	12	6217	1	0.00%	0.00%	0.00%	0	TTY
Background								
32	12	6229	1	0.00%	0.00%	0.00%	0	Per-Second
Jobs								
33	872	106	8226	0.00%	0.01%	0.00%	0	Per-minute
Jobs								
34	8	8	1000	0.00%	0.00%	0.00%	0	IF-MGR
control p								
35	0	149	0	0.00%	0.00%	0.00%	0	IF-MGR
event pro	ŭ		· ·	0.000	0.000	0.000	Ū	11 11011
36	0	1	0	0.00%	0.00%	0.00%	0	AggMgr
Process	Ü	_	· ·	0.000	0.000	0.000	Ü	11991191
37	0	1246	0	0.00%	0.00%	0.00%	0	Compute
load avg	O	1210	O	0.000	0.000	0.000	O	compace
38	0	1868	0	0.00%	0.00%	0.00%	Λ	HC Counter
Timer	O	1000	O	0.000	0.000	0.000	O	ne counter
39	4	6152	0	0.00%	0.00%	0.00%	Λ	Vegas
Storm Cont	1	0132	O	0.000	0.000	0.000	O	vegas
40	2448	401	6104	0.31%	1.01%	0.30%	0	Exec
41	16	119522	0104	0.00%	0.00%	0.00%	0	TYCC
DownWhenLoop		119522	O	0.00%	0.00%	0.00%	U	
42	0	5	0	0.00%	0.00%	0.00%	\cap	Collection
	U	J	U	0.00%	0.00%	0.00%	U	COTTECTION
proce 43	6020	155330	38	0.15%	0.07%	0.07%	\cap	Vegas LED
	0020	133330	30	0.15%	0.07%	0.07%	U	vegas LED
Proces 44	0	1	0	0.00%	0.00%	0.00%	0	
	U	1	U	0.006	0.006	0.006	U	
SCQ_PROCESS	100	20514	2	0 000	0 000	0 000	0	DAM Acces
45	108	39514	2	0.00%	0.00%	0.00%		RAM Access
46	84	76384	1	0.00%	0.00%	0.00%	U	SW Frame
Ager	0.0	1.00	710	0 000	0 000	0 000	0	
47	92	128	718	0.00%	0.00%	0.00%	Ü	VLAN Info
Update	^	4	^	0 000	0 000	0 000	^	TADE 01 '
48	0	1	0	0.00%	0.00%	0.00%	U	JADE Gbit
lockup	_	40	-	0 000	0 0 5 5	0 0 5 5	_	- 0
49	0	12441	0	0.00%	0.00%	0.00%	0	L2TM
Process	_						_	
50	0	12442	0	0.00%		0.00%		L3TM
	24764	18455	1341	0.39%	0.40%	0.39%	0	Vegas
Statistics								

52	16	86355	0	0.00%	0.00%	0.00%	0	HMATM
Learn proc	4	6222	0	0 000	0 000	0 000	0	
53	4	6223	0	0.00%	0.00%	0.00%	U	HMATM Age
proces 54	80	125	640	0.00%	0.00%	0.00%	\cap	VL2MM
55	0	6294	040	0.00%	0.00%	0.00%		L3MD
56	1700	15560	109	0.00%	0.00%	0.00%		L3MD STAT
57	0	13300	0	0.00%	0.00%	0.00%		Vegas
Bridging	U	Τ.	O	0.00%	0.00%	0.00%	U	vegas
58	1520	77783	19	0.00%	0.00%	0.00%	Λ	VegasPM
59	48	3254	14	0.00%	0.00%	0.00%		VUR MGR bg
	40	3234	14	0.00%	0.00%	0.00%	U	VUR_MGR DG
proce	1	6222	0	0 000	0 000	0 000	0	DT MAMM
60	4	6223	0	0.00%	0.00%	0.00%	U	PI MATM
Aging Pr	0	1	0	0 000	0 000	0 000	0	Q
61	0	1	0	0.00%	0.00%	0.00%	U	Switch
Backup In	0	104	0	0 000	0 000	0 000	0	1007 1 1 1
62	0	104	0	0.00%	0.00%	0.00%	Ü	MMN bkgrd
proces	_							
63	0	2	0	0.00%	0.00%	0.00%	0	Dot1x Mgr
Proces								
64	0	2	0	0.00%	0.00%	0.00%	0	802.1x
Accountin								
65	0	1	0	0.00%	0.00%	0.00%	0	MAB
Framework								
66	0	14	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	264	2123	124	0.07%	0.00%	0.00%	0	DTP
Protocol								
69	0	1	0	0.00%	0.00%	0.00%	0	EAP
Framework								
70	0	104	0	0.00%	0.00%	0.00%	0	Port-
Security								
72	0	49	0	0.00%	0.00%	0.00%	0	Switch IP
Host T								
73	0	625	0	0.00%	0.00%	0.00%	0	Ethchnl
74	0	6225	0	0.00%	0.00%	0.00%		UDLD
75	0	1	0	0.00%	0.00%	0.00%		Vegas IPSG
Proce	-		-					
76	8	113	70	0.00%	0.00%	0.00%	0	VMATM
Callback	Ü	110	, 0	0.000	0.000	0.000	Ū	V 1 11 1 1 1 1
77	0	92	0	0.00%	0.00%	0.00%	0	HL3U PBR
bkgrd p	Ü	32	· ·	0.000	0.000	0.000	Ū	11200 1210
78	0	52	0	0.00%	0.00%	0.00%	Λ	Vegas PBR
n-h re	O	52	O	0.000	0.000	0.000	O	vegas ibit
79	0	2	0	0.00%	0.00%	0.00%	\cap	AAA Server
80	0	1	0	0.00%	0.00%	0.00%		AAA ACCT
Proc	U	Τ.	U	0.000	0.00%	0.00%	U	MAA ACCI
81	0	1	0	0.00%	0.00%	0.00%	\cap	ACCT
		Τ	U	0.006	0.006	0.006	U	ACCI
Periodic Pr		1	^	0 000	0 000	0 000	^	777 C
82	0	1	0	0.00%	0.00%	0.00%	U	AAA System
Acct								

83 AAA B	0	1	0	0.00%	0.00%	0.00%	0	Auth-proxy
84 SM Proc	0	21	0	0.00%	0.00%	0.00%	0	IP Admin
85 Protocol	684	2669	256	0.00%	0.00%	0.00%	0	CDP
87 88	0	1 2	0	0.00%	0.00% 0.00%	0.00%		Key Proc AAA
Dictionary 89	R 0	52	0	0.00%	0.00%	0.00%	0	DHCP
Snooping 90	0	3	0	0.00%	0.00%	0.00%	0	CEF
switching &	oa 1592	9755	163	0.00%	0.03%	0.01%	0	IP Input
92	0	1	0	0.00%	0.00%	0.00%		ICMP event
handl 93	4	12157	0	0.00%	0.00%	0.00%	0	IP ARP
Track 94	0	4	0	0.00%	0.00%	0.00%	0	ADJ
resolve pro	oc 1396	14997	93	0.00%	0.02%	0.00%	0	Spanning
Tree	1390	14997	93	0.00%	0.026	0.00%	U	Spanning
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	106	0	0.00%	0.00%	0.00%	0	CEF
background	_							
99	0	1	0	0.00%	0.00%	0.00%		IP IRDP
100	0	80	0	0.00%	0.00%	0.00%	0	Cluster L2
101	0	624	0	0.00%	0.00%	0.00%	0	Cluster
RARP 102	152	1737	87	0.00%	0.00%	0.00%	0	Cluster
Base	132	1/3/	0 /	0.00%	0.006	0.00%	U	Cluster
103	0	1	0	0.00%	0.00%	0.00%	Ο	TCP Timer
104	0	1	0	0.00%	0.00%	0.00%	0	TCP
Protocols	O	_	O	0.000	0.000	0.000	O	101
105	0	1	0	0.00%	0.00%	0.00%	0	Socket
Timers								
106	0	23	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	28	159	176	0.00%	0.00%	0.00%		L2MM
110	48	486	98	0.00%	0.00%	0.00%		MRD
111	100	550	181	0.00%	0.00%	0.00%		IGMPSN
112	0	1	0	0.00%	0.00%	0.00%		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%		Crypto ACL
116	56	172	325	0.00%	0.00%	0.00%	0	IP RIB
Update								

117 Danaissa	12	18	666	0.00%	0.00%	0.00%	0	DHCPD
Receive 118	0	1	0	0.00%	0.00%	0.00%	0	Transport
Port A								
119	2020	14	144285	0.00%	0.00%	0.00%	0	crypto sw
pk pro			•				•	
120	0	2	0	0.00%	0.00%	0.00%	0	Crypto
Support	0	2	0	0 000	0 000	0 000	0	T 0 0 7 T 7 7 7
121 122	0	2 2	0	0.00%	0.00%	0.00%		LOCAL AAA
123	0	2	0	0.00% 0.00%	0.00% 0.00%	0.00% 0.00%		ENABLE AAA LINE AAA
125	0	2	0	0.00%	0.00%	0.00%		TPLUS
126	0	1	0	0.00%	0.00%	0.00%		CRYPTO QoS
proce	O	Τ.	O	0.00%	0.00%	0.00%	U	CRIFIO QUS
127	0	1	0	0.00%	0.00%	0.00%	Ω	Crypto INT
128	4	4	1000	0.00%	0.00%	0.00%		Crypto
IKMP	-	•	1000	0.000	0.000	0.000	O	CIYPCO
129	96	314	305	0.00%	0.00%	0.00%	0	IPSEC key
engine	3 0	0_1		0.000		0.000	Ū	11020 1101
130	0	1	0	0.00%	0.00%	0.00%	0	IPSEC
manual key			-					
131	0	1	0	0.00%	0.00%	0.00%	0	Crypto PAS
Proc								7 1
132	0	12	0	0.00%	0.00%	0.00%	0	crypto
engine pr								
133	24	4	6000	0.00%	0.00%	0.00%	0	Crypto CA
134	0	1	0	0.00%	0.00%	0.00%	0	Crypto
PKI-CRL								
135	0	1	0	0.00%	0.00%	0.00%		Crypto SSL
136	0	1	0	0.00%	0.00%	0.00%	0	encrypt
proc								
137	8	6230	1	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	4	2	2000	0.00%	0.00%	0.00%	0	DHCP
Security He		10007	4	0 000	0 000	0 000	0	DM
140	52	10807	4	0.00%	0.00%	0.00%	U	PM
Callback 141	8	48	166	0.00%	0.00%	0.00%	0	VLAN
Manager	0	40	100	0.00%	0.00%	0.00%	U	VLAN
142	0	52	0	0.00%	0.00%	0.00%	0	DHCPD
Timer	O	32	O	0.000	0.000	0.000	O	DIICID
143	0	500	0	0.00%	0.00%	0.00%	Ο	dhcp
snooping sw			v	0.000		0.000	Ū	0.1101
144	440	2129	206	0.00%	0.00%	0.00%	0	Inline
Power								
145	404	13786	29	0.00%	0.00%	0.00%	0	Marvell
wk-a Pow								
146	0	2	0	0.00%	0.00%	0.00%	0	Inline
Power Twe								
147	0	1	0	0.00%	0.00%	0.00%	0	VFM Queue
Proces								

148	8	1	8000	0.00%	0.00%	0.00%	0	VFM/VQM
Merge Pr 149	0	1	0	0.00%	0.00%	0.00%	0	VFM
Deferred Upd 150	0	13	0	0.00%	0.00%	0.00%	0	VTP Trap
Process 152	0	2	0	0.00%	0.00%	0.00%	0	AAA SEND
STOP EV 153 Traps	0	1	0	0.00%	0.00%	0.00%	0	Syslog
154 Transfer Pr	0	1	0	0.00%	0.00%	0.00%	0	DATA
155 Collector	0	1	0	0.00%	0.00%	0.00%	0	DATA
156 157	0	109	0	0.00%	0.00%	0.00%		Syslog C3550 DHCP
Snoop 158	0	2	0	0.00%	0.00%	0.00%	0	
TOPOLO 159	0	2	0	0.00%	0.00%	0.00%	0	
TRANSIT 160	0	2	0	0.00%	0.00%	0.00%	0	STP STACK
TOPOLO 161	0	2	0	0.00%	0.00%	0.00%	0	CSRT RAPID
TRANS 163	0	5	0	0.00%	0.00%	0.00%	0	SSH Event
handle 164	0	14	0	0.00%	0.00%	0.00%	0	IPv6 RIB
Redistr 165	24	9286	2	0.00%	0.00%	0.00%	0	CEF: IPv4
proces 166	4	5	800	0.00%	0.00%	0.00%	0	ADJ
background 167	16	231	69	0.00%	0.00%	0.00%	0	IP
Background 168	28	336	83	0.00%	0.00%	0.00%		IPv6 Input
169 170	0	332 4	0 0	0.00%	0.00%	0.00%		IPv6 ND
171 172	20	719 6234	27 0	0.00% 0.00%	0.00% 0.00%	0.00% 0.00%		IPv6 RIP DVMRP
Timers 173	140	6932	20	0.00%	0.00%	0.00%	Ο	IGMP Input
174 Process	172	8197	20	0.00%	0.00%	0.00%		PIM
175	28	62287	0	0.00%	0.00%	0.00%	0	Mwheel
Process 176	188	1369	137	0.00%	0.00%	0.00%	0	PAgP
177	152	2051	74	0.00%	0.00%	0.00%		LACP
Protocol								
178	184	4099	44	0.00%	0.00%	0.00%	0	HSRP
(Standby) 180	0	1753	0	0.00%	0.00%	0.00%	0	DHCPD
Database								

181	4	55	72	0.00%	0.00%	0.00%	0 EIGRP:
Router							
182	912	8317	109	0.00%	0.00%	0.00%	0 EIGRP-
IPv4:							
183	476	10915	43	0.00%	0.00%	0.00%	0 EIGRP-
IPv4: Hell							
DSW2#							

DSW2#

DSW2#show interfaces

Vlan1 is administratively down, line protocol is down Hardware is EtherSVI, address is 000b.fd20.ba00 (bia 000b.fd20.ba00) MTU 1500 bytes, BW 1000000 Kbit, DLY 10 usec, reliability 255/255, txload 1/255, rxload 1/255

Encapsulation ARPA, loopback not set

Keepalive not supported

ARP type: ARPA, ARP Timeout 04:00:00

Last input never, output never, output hang never Last clearing of "show interface" counters never

Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0

```
Queueing strategy: fifo
  Output queue: 0/40 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
     O packets input, O bytes, O no buffer
     Received 0 broadcasts (0 IP multicasts)
     0 runts, 0 giants, 0 throttles
     O input errors, O CRC, O frame, O overrun, O ignored
     O packets output, O bytes, O underruns
     0 output errors, 1 interface resets
     O output buffer failures, O output buffers swapped out
Vlan10 is up, line protocol is up
  Hardware is EtherSVI, address is 000b.fd20.ba00 (bia 000b.fd20.ba00)
  Internet address is 10.2.1.2/24
  MTU 1500 bytes, BW 1000000 Kbit, DLY 10 usec,
     reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation ARPA, loopback not set
  Keepalive not supported
  ARP type: ARPA, ARP Timeout 04:00:00
  Last input 00:00:01, output 00:00:02, 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
     3988 packets input, 309821 bytes, 0 no buffer
     Received 0 broadcasts (1241 IP multicasts)
     0 runts, 0 giants, 0 throttles
     0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
     3941 packets output, 273419 bytes, 0 underruns
     0 output errors, 0 interface resets
     O output buffer failures, O output buffers swapped out
Vlan20 is up, line protocol is up
  Hardware is EtherSVI, address is 000b.fd20.ba00 (bia 000b.fd20.ba00)
  Internet address is 10.2.2.1/24
  MTU 1500 bytes, BW 1000000 Kbit, DLY 10 usec,
     reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation ARPA, loopback not set
  Keepalive not supported
  ARP type: ARPA, ARP Timeout 04:00:00
  Last input 00:00:02, output 00:00:00, output hang never
  Last clearing of "show interface" counters never
  Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 6
  Queueing strategy: fifo
  Output queue: 0/40 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
     1533 packets input, 124657 bytes, 0 no buffer
     Received 0 broadcasts (1253 IP multicasts)
     0 runts, 0 giants, 0 throttles
     0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
     1868 packets output, 142492 bytes, 0 underruns
     0 output errors, 0 interface resets
```

```
O output buffer failures, O output buffers swapped out
Vlan200 is up, line protocol is up
  Hardware is EtherSVI, address is 000b.fd20.ba00 (bia 000b.fd20.ba00)
  Internet address is 192.168.1.130/27
  MTU 1500 bytes, BW 1000000 Kbit, DLY 10 usec,
     reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation ARPA, loopback not set
  Keepalive not supported
  ARP type: ARPA, ARP Timeout 04:00:00
  Last input 00:49:28, output 01:43:17, 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
     2 packets input, 128 bytes, 0 no buffer
     Received 0 broadcasts (0 IP multicasts)
     0 runts, 0 giants, 0 throttles
     O input errors, O CRC, O frame, O overrun, O ignored
     1 packets output, 60 bytes, 0 underruns
     0 output errors, 0 interface resets
     O output buffer failures, O output buffers swapped out
FastEthernet0/1 is up, line protocol is up (connected)
  Hardware is Fast Ethernet, address is 000b.fd20.ba00 (bia
000b.fd20.ba00)
  Internet address is 10.1.4.10/30
  MTU 1500 bytes, BW 100000 Kbit, DLY 100 usec,
     reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation ARPA, loopback not set
  Keepalive set (10 sec)
  Full-duplex, 100Mb/s, media type is 10/100BaseTX
  input flow-control is off, output flow-control is unsupported
  ARP type: ARPA, ARP Timeout 04:00:00
  Last input 00:00:00, output 00:00:00, output hang never
  Last clearing of "show interface" counters never
  Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
  Queueing strategy: fifo
  Output queue: 0/40 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
     2789 packets input, 234958 bytes, 0 no buffer
     Received 1896 broadcasts (1401 IP multicasts)
     0 runts, 0 giants, 0 throttles
     0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
     0 watchdog, 1893 multicast, 0 pause input
     O input packets with dribble condition detected
     2794 packets output, 259729 bytes, 0 underruns
     O output errors, O collisions, 3 interface resets
     O babbles, O late collision, O deferred
     O lost carrier, O no carrier, O PAUSE output
     O output buffer failures, O output buffers swapped out
FastEthernet0/2 is administratively down, line protocol is down
(disabled)
```

```
Hardware is Fast Ethernet, address is 000b.fd20.ba02 (bia
000b.fd20.ba02)
 MTU 1500 bytes, BW 10000 Kbit, DLY 1000 usec,
     reliability 255/255, txload 1/255, rxload 1/255
 Encapsulation ARPA, loopback not set
 Keepalive set (10 sec)
 Auto-duplex, Auto-speed, media type is 10/100BaseTX
  input flow-control is off, output flow-control is unsupported
 ARP type: ARPA, ARP Timeout 04:00:00
  Last input never, output never, output hang never
  Last clearing of "show interface" counters never
  Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
 Queueing strategy: fifo
  Output queue: 0/40 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
     O packets input, O bytes, O 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
     O input packets with dribble condition detected
     O packets output, O bytes, O underruns
     0 output errors, 0 collisions, 1 interface resets
     O babbles, O late collision, O deferred
     O lost carrier, O no carrier, O PAUSE output
     O output buffer failures, O output buffers swapped out
FastEthernet0/3 is down, line protocol is down (notconnect)
  Hardware is Fast Ethernet, address is 000b.fd20.ba03 (bia
000b.fd20.ba03)
 MTU 1500 bytes, BW 10000 Kbit, DLY 1000 usec,
     reliability 255/255, txload 1/255, rxload 1/255
 Encapsulation ARPA, loopback not set
 Keepalive set (10 sec)
 Auto-duplex, Auto-speed, media type is 10/100BaseTX
  input flow-control is off, output flow-control is unsupported
 ARP type: ARPA, ARP Timeout 04:00:00
  Last input never, output never, output hang never
 Last clearing of "show interface" counters never
  Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
 Queueing strategy: fifo
 Output queue: 0/40 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
     O packets input, O bytes, O 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
     O input packets with dribble condition detected
     O packets output, O bytes, O underruns
     O output errors, O collisions, 1 interface resets
     O babbles, O late collision, O deferred
     O lost carrier, O no carrier, O PAUSE output
```

```
O output buffer failures, O output buffers swapped out
FastEthernet0/4 is administratively down, line protocol is down
(disabled)
 Hardware is Fast Ethernet, address is 000b.fd20.ba04 (bia
000b.fd20.ba04)
 MTU 1500 bytes, BW 10000 Kbit, DLY 1000 usec,
    reliability 255/255, txload 1/255, rxload 1/255
 Encapsulation ARPA, loopback not set
 Keepalive set (10 sec)
 Auto-duplex, Auto-speed, media type is 10/100BaseTX
 input flow-control is off, output flow-control is unsupported
 ARP type: ARPA, ARP Timeout 04:00:00
 Last input never, output never, output hang never
 Last clearing of "show interface" counters never
 Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
 Queueing strategy: fifo
 Output queue: 0/40 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
    O packets input, O bytes, O no buffer
    Received 0 broadcasts (0 multicasts)
    0 runts, 0 giants, 0 throttles
    O input errors, O CRC, O frame, O overrun, O ignored
    0 watchdog, 0 multicast, 0 pause input
    O input packets with dribble condition detected
    O packets output, O bytes, O underruns
    O output errors, O collisions, 1 interface resets
    O babbles, O late collision, O deferred
    O lost carrier, O no carrier, O PAUSE output
    O output buffer failures, O output buffers swapped out
FastEthernet0/5 is administratively down, line protocol is down
(disabled)
 Hardware is Fast Ethernet, address is 000b.fd20.ba05 (bia
000b.fd20.ba05)
 MTU 1500 bytes, BW 10000 Kbit, DLY 1000 usec,
     reliability 255/255, txload 1/255, rxload 1/255
 Encapsulation ARPA, loopback not set
 Keepalive set (10 sec)
 Auto-duplex, Auto-speed, media type is 10/100BaseTX
 input flow-control is off, output flow-control is unsupported
 ARP type: ARPA, ARP Timeout 04:00:00
 Last input never, output never, output hang never
 Last clearing of "show interface" counters never
 Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
 Queueing strategy: fifo
 Output queue: 0/40 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
    O packets input, O bytes, O no buffer
    Received 0 broadcasts (0 multicasts)
    0 runts, 0 giants, 0 throttles
    O input errors, O CRC, O frame, O overrun, O ignored
    0 watchdog, 0 multicast, 0 pause input
    O input packets with dribble condition detected
```

```
O packets output, O bytes, O underruns
     O output errors, O collisions, 1 interface resets
     O babbles, O late collision, O deferred
     O lost carrier, O no carrier, O PAUSE output
     O output buffer failures, O output buffers swapped out
FastEthernet0/6 is administratively down, line protocol is down
(disabled)
  Hardware is Fast Ethernet, address is 000b.fd20.ba06 (bia
000b.fd20.ba06)
 MTU 1500 bytes, BW 10000 Kbit, DLY 1000 usec,
     reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation ARPA, loopback not set
  Keepalive set (10 sec)
 Auto-duplex, Auto-speed, media type is 10/100BaseTX
  input flow-control is off, output flow-control is unsupported
 ARP type: ARPA, ARP Timeout 04:00:00
 Last input never, output never, output hang never
  Last clearing of "show interface" counters never
  Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
  Queueing strategy: fifo
  Output queue: 0/40 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
     O packets input, O bytes, O 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
     O input packets with dribble condition detected
     O packets output, O bytes, O underruns
     O output errors, O collisions, 1 interface resets
     O babbles, O late collision, O deferred
     O lost carrier, O no carrier, O PAUSE output
     O output buffer failures, O output buffers swapped out
FastEthernet0/7 is administratively down, line protocol is down
(disabled)
  Hardware is Fast Ethernet, address is 000b.fd20.ba07 (bia
000b.fd20.ba07)
 MTU 1500 bytes, BW 10000 Kbit, DLY 1000 usec,
     reliability 255/255, txload 1/255, rxload 1/255
 Encapsulation ARPA, loopback not set
  Keepalive set (10 sec)
 Auto-duplex, Auto-speed, media type is 10/100BaseTX
  input flow-control is off, output flow-control is unsupported
 ARP type: ARPA, ARP Timeout 04:00:00
 Last input never, output never, output hang never
 Last clearing of "show interface" counters never
  Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
 Queueing strategy: fifo
  Output queue: 0/40 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
     O packets input, O bytes, O 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
     O input packets with dribble condition detected
     O packets output, O bytes, O underruns
     O output errors, O collisions, 1 interface resets
     O babbles, O late collision, O deferred
     O lost carrier, O no carrier, O PAUSE output
     O output buffer failures, O output buffers swapped out
FastEthernet0/8 is administratively down, line protocol is down
(disabled)
  Hardware is Fast Ethernet, address is 000b.fd20.ba08 (bia
000b.fd20.ba08)
 MTU 1500 bytes, BW 10000 Kbit, DLY 1000 usec,
     reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation ARPA, loopback not set
  Keepalive set (10 sec)
 Auto-duplex, Auto-speed, media type is 10/100BaseTX
  input flow-control is off, output flow-control is unsupported
 ARP type: ARPA, ARP Timeout 04:00:00
 Last input never, output never, output hang never
 Last clearing of "show interface" counters never
  Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
 Queueing strategy: fifo
  Output queue: 0/40 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
     O packets input, O bytes, O no buffer
     Received 0 broadcasts (0 multicasts)
     0 runts, 0 giants, 0 throttles
     O input errors, O CRC, O frame, O overrun, O ignored
     0 watchdog, 0 multicast, 0 pause input
     O input packets with dribble condition detected
     O packets output, O bytes, O underruns
     O output errors, O collisions, 1 interface resets
     O babbles, O late collision, O deferred
     O lost carrier, O no carrier, O PAUSE output
     O output buffer failures, O output buffers swapped out
FastEthernet0/9 is administratively down, line protocol is down
(disabled)
  Hardware is Fast Ethernet, address is 000b.fd20.ba09 (bia
000b.fd20.ba09)
 MTU 1500 bytes, BW 10000 Kbit, DLY 1000 usec,
     reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation ARPA, loopback not set
  Keepalive set (10 sec)
 Auto-duplex, Auto-speed, media type is 10/100BaseTX
  input flow-control is off, output flow-control is unsupported
 ARP type: ARPA, ARP Timeout 04:00:00
  Last input never, output never, output hang never
  Last clearing of "show interface" counters never
  Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
  Queueing strategy: fifo
  Output queue: 0/40 (size/max)
```

```
5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
    O packets input, O bytes, O 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
    O input packets with dribble condition detected
    O packets output, O bytes, O underruns
    O output errors, O collisions, 1 interface resets
    O babbles, O late collision, O deferred
    O lost carrier, O no carrier, O PAUSE output
     O output buffer failures, O output buffers swapped out
FastEthernet0/10 is administratively down, line protocol is down
(disabled)
  Hardware is Fast Ethernet, address is 000b.fd20.ba0a (bia
000b.fd20.ba0a)
 MTU 1500 bytes, BW 10000 Kbit, DLY 1000 usec,
     reliability 255/255, txload 1/255, rxload 1/255
 Encapsulation ARPA, loopback not set
 Keepalive set (10 sec)
 Auto-duplex, Auto-speed, media type is 10/100BaseTX
  input flow-control is off, output flow-control is unsupported
 ARP type: ARPA, ARP Timeout 04:00:00
 Last input never, output never, output hang never
 Last clearing of "show interface" counters never
 Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
 Queueing strategy: fifo
 Output queue: 0/40 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
    O packets input, O bytes, O 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
    O input packets with dribble condition detected
    O packets output, O bytes, O underruns
    O output errors, O collisions, 1 interface resets
    O babbles, O late collision, O deferred
    O lost carrier, O no carrier, O PAUSE output
    O output buffer failures, O output buffers swapped out
FastEthernet0/11 is administratively down, line protocol is down
(disabled)
  Hardware is Fast Ethernet, address is 000b.fd20.ba0b (bia
000b.fd20.ba0b)
 MTU 1500 bytes, BW 10000 Kbit, DLY 1000 usec,
    reliability 255/255, txload 1/255, rxload 1/255
 Encapsulation ARPA, loopback not set
 Keepalive set (10 sec)
 Auto-duplex, Auto-speed, media type is 10/100BaseTX
 input flow-control is off, output flow-control is unsupported
 ARP type: ARPA, ARP Timeout 04:00:00
 Last input never, output never, output hang never
```

```
Last clearing of "show interface" counters never
  Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
  Queueing strategy: fifo
  Output queue: 0/40 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
     O packets input, O bytes, O 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
     O input packets with dribble condition detected
     O packets output, O bytes, O underruns
     O output errors, O collisions, 1 interface resets
     O babbles, O late collision, O deferred
     O lost carrier, O no carrier, O PAUSE output
     O output buffer failures, O output buffers swapped out
FastEthernet0/12 is administratively down, line protocol is down
(disabled)
  Hardware is Fast Ethernet, address is 000b.fd20.ba0c (bia
000b.fd20.ba0c)
  MTU 1500 bytes, BW 10000 Kbit, DLY 1000 usec,
     reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation ARPA, loopback not set
  Keepalive set (10 sec)
 Auto-duplex, Auto-speed, media type is 10/100BaseTX
  input flow-control is off, output flow-control is unsupported
 ARP type: ARPA, ARP Timeout 04:00:00
 Last input never, output never, output hang never
  Last clearing of "show interface" counters never
  Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
 Queueing strategy: fifo
 Output queue: 0/40 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
     O packets input, O bytes, O 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
     O input packets with dribble condition detected
     O packets output, O bytes, O underruns
     O output errors, O collisions, 1 interface resets
     O babbles, O late collision, O deferred
     O lost carrier, O no carrier, O PAUSE output
     O output buffer failures, O output buffers swapped out
FastEthernet0/13 is administratively down, line protocol is down
(disabled)
  Hardware is Fast Ethernet, address is 000b.fd20.ba0d (bia
000b.fd20.ba0d)
 MTU 1500 bytes, BW 10000 Kbit, DLY 1000 usec,
     reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation ARPA, loopback not set
 Keepalive set (10 sec)
```

```
Auto-duplex, Auto-speed, media type is 10/100BaseTX
  input flow-control is off, output flow-control is unsupported
  ARP type: ARPA, ARP Timeout 04:00:00
  Last input never, output never, output hang never
  Last clearing of "show interface" counters never
  Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
  Queueing strategy: fifo
  Output queue: 0/40 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
     O packets input, O bytes, O no buffer
     Received 0 broadcasts (0 multicasts)
     0 runts, 0 giants, 0 throttles
     O input errors, O CRC, O frame, O overrun, O ignored
     0 watchdog, 0 multicast, 0 pause input
     O input packets with dribble condition detected
     O packets output, O bytes, O underruns
     O output errors, O collisions, 1 interface resets
     O babbles, O late collision, O deferred
     O lost carrier, O no carrier, O PAUSE output
     O output buffer failures, O output buffers swapped out
FastEthernet0/14 is administratively down, line protocol is down
(disabled)
  Hardware is Fast Ethernet, address is 000b.fd20.ba0e (bia
000b.fd20.ba0e)
 MTU 1500 bytes, BW 10000 Kbit, DLY 1000 usec,
     reliability 255/255, txload 1/255, rxload 1/255
 Encapsulation ARPA, loopback not set
  Keepalive set (10 sec)
 Auto-duplex, Auto-speed, media type is 10/100BaseTX
  input flow-control is off, output flow-control is unsupported
 ARP type: ARPA, ARP Timeout 04:00:00
 Last input never, output never, output hang never
  Last clearing of "show interface" counters never
  Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
  Queueing strategy: fifo
  Output queue: 0/40 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
     O packets input, O bytes, O no buffer
     Received 0 broadcasts (0 multicasts)
     0 runts, 0 giants, 0 throttles
     O input errors, O CRC, O frame, O overrun, O ignored
     0 watchdog, 0 multicast, 0 pause input
     O input packets with dribble condition detected
     O packets output, O bytes, O underruns
     O output errors, O collisions, 1 interface resets
     O babbles, O late collision, O deferred
     O lost carrier, O no carrier, O PAUSE output
     O output buffer failures, O output buffers swapped out
FastEthernet0/15 is down, line protocol is down (notconnect)
  Hardware is Fast Ethernet, address is 000b.fd20.ba0f (bia
000b.fd20.ba0f)
 MTU 1500 bytes, BW 10000 Kbit, DLY 1000 usec,
```

```
reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation ARPA, loopback not set
  Keepalive set (10 sec)
  Auto-duplex, Auto-speed, media type is 10/100BaseTX
  input flow-control is off, output flow-control is unsupported
  ARP type: ARPA, ARP Timeout 04:00:00
  Last input never, output never, output hang never
  Last clearing of "show interface" counters never
  Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
  Queueing strategy: fifo
  Output queue: 0/40 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
     O packets input, O bytes, O 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
     O input packets with dribble condition detected
     O packets output, O bytes, O underruns
     O output errors, O collisions, 1 interface resets
     O babbles, O late collision, O deferred
     O lost carrier, O no carrier, O PAUSE output
     O output buffer failures, O output buffers swapped out
FastEthernet0/16 is up, line protocol is up (connected)
  Hardware is Fast Ethernet, address is 000b.fd20.ba10 (bia
000b.fd20.ba10)
 MTU 1500 bytes, BW 100000 Kbit, DLY 100 usec,
     reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation ARPA, loopback not set
  Keepalive set (10 sec)
  Full-duplex, 100Mb/s, media type is 10/100BaseTX
  input flow-control is off, output flow-control is unsupported
 ARP type: ARPA, ARP Timeout 04:00:00
  Last input 00:00:17, 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
     1176 packets input, 118775 bytes, 0 no buffer
     Received 550 broadcasts (0 multicasts)
     0 runts, 0 giants, 0 throttles
     0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
     0 watchdog, 550 multicast, 0 pause input
     O input packets with dribble condition detected
     3058 packets output, 276418 bytes, 0 underruns
     O output errors, O collisions, 1 interface resets
     O babbles, O late collision, O deferred
     O lost carrier, O no carrier, O PAUSE output
     O output buffer failures, O output buffers swapped out
FastEthernet0/17 is up, line protocol is up (connected)
```

```
Hardware is Fast Ethernet, address is 000b.fd20.ba11 (bia
000b.fd20.ba11)
 MTU 1500 bytes, BW 100000 Kbit, DLY 100 usec,
     reliability 255/255, txload 1/255, rxload 1/255
 Encapsulation ARPA, loopback not set
 Keepalive set (10 sec)
  Full-duplex, 100Mb/s, media type is 10/100BaseTX
  input flow-control is off, output flow-control is unsupported
 ARP type: ARPA, ARP Timeout 04:00:00
 Last input 00:00:18, 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
     5694 packets input, 465062 bytes, 0 no buffer
     Received 4987 broadcasts (0 multicasts)
     0 runts, 0 giants, 0 throttles
     0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
     0 watchdog, 4978 multicast, 0 pause input
     O input packets with dribble condition detected
     1190 packets output, 119168 bytes, 0 underruns
     0 output errors, 0 collisions, 1 interface resets
     O babbles, O late collision, O deferred
     O lost carrier, O no carrier, O PAUSE output
     O output buffer failures, O output buffers swapped out
FastEthernet0/18 is up, line protocol is up (connected)
  Hardware is Fast Ethernet, address is 000b.fd20.ba12 (bia
000b.fd20.ba12)
 MTU 1500 bytes, BW 100000 Kbit, DLY 100 usec,
     reliability 255/255, txload 1/255, rxload 1/255
 Encapsulation ARPA, loopback not set
 Keepalive set (10 sec)
  Full-duplex, 100Mb/s, media type is 10/100BaseTX
  input flow-control is off, output flow-control is unsupported
 ARP type: ARPA, ARP Timeout 04:00:00
 Last input 00:00:01, 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
     1176 packets input, 118775 bytes, 0 no buffer
     Received 550 broadcasts (0 multicasts)
     0 runts, 0 giants, 0 throttles
     0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
     0 watchdog, 550 multicast, 0 pause input
     O input packets with dribble condition detected
     4607 packets output, 365000 bytes, 0 underruns
     O output errors, O collisions, 1 interface resets
     O babbles, O late collision, O deferred
     O lost carrier, O no carrier, O PAUSE output
```

```
O output buffer failures, O output buffers swapped out
FastEthernet0/19 is up, line protocol is up (connected)
  Hardware is Fast Ethernet, address is 000b.fd20.ba13 (bia
000b.fd20.ba13)
 MTU 1500 bytes, BW 100000 Kbit, DLY 100 usec,
     reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation ARPA, loopback not set
 Keepalive set (10 sec)
  Full-duplex, 100Mb/s, media type is 10/100BaseTX
  input flow-control is off, output flow-control is unsupported
 ARP type: ARPA, ARP Timeout 04:00:00
 Last input 00:00:04, 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 1000 bits/sec, 2 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
    11499 packets input, 913006 bytes, 0 no buffer
    Received 10786 broadcasts (0 multicasts)
    0 runts, 0 giants, 0 throttles
    0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
    0 watchdog, 10519 multicast, 0 pause input
    O input packets with dribble condition detected
    5156 packets output, 434945 bytes, 0 underruns
    O output errors, O collisions, 1 interface resets
    O babbles, O late collision, O deferred
    O lost carrier, O no carrier, O PAUSE output
    O output buffer failures, O output buffers swapped out
FastEthernet0/20 is up, line protocol is up (connected)
  Hardware is Fast Ethernet, address is 000b.fd20.ba14 (bia
000b.fd20.ba14)
 MTU 1500 bytes, BW 100000 Kbit, DLY 100 usec,
     reliability 255/255, txload 1/255, rxload 1/255
 Encapsulation ARPA, loopback not set
 Keepalive set (10 sec)
 Full-duplex, 100Mb/s, media type is 10/100BaseTX
  input flow-control is off, output flow-control is unsupported
 ARP type: ARPA, ARP Timeout 04:00:00
 Last input 00:00:01, output 00:00:07, output hang never
 Last clearing of "show interface" counters never
 Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
 Queueing strategy: fifo
 Output queue: 0/40 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
    1362 packets input, 143871 bytes, 0 no buffer
    Received 552 broadcasts (0 multicasts)
    0 runts, 0 giants, 0 throttles
    O input errors, O CRC, O frame, O overrun, O ignored
    0 watchdog, 552 multicast, 0 pause input
    O input packets with dribble condition detected
    1297 packets output, 136266 bytes, 0 underruns
    0 output errors, 0 collisions, 1 interface resets
```

```
O babbles, O late collision, O deferred
    O lost carrier, O no carrier, O PAUSE output
    O output buffer failures, O output buffers swapped out
FastEthernet0/21 is up, line protocol is up (connected)
 Hardware is Fast Ethernet, address is 000b.fd20.ba15 (bia
000b.fd20.ba15)
 MTU 1500 bytes, BW 100000 Kbit, DLY 100 usec,
    reliability 255/255, txload 1/255, rxload 1/255
 Encapsulation ARPA, loopback not set
 Keepalive set (10 sec)
 Full-duplex, 100Mb/s, media type is 10/100BaseTX
 input flow-control is off, output flow-control is unsupported
 ARP type: ARPA, ARP Timeout 04:00:00
 Last input 00:00:19, 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
    1178 packets input, 127733 bytes, 0 no buffer
    Received 552 broadcasts (0 multicasts)
    0 runts, 0 giants, 0 throttles
    0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
    0 watchdog, 552 multicast, 0 pause input
    O input packets with dribble condition detected
    1728 packets output, 166566 bytes, 0 underruns
    0 output errors, 0 collisions, 1 interface resets
    O babbles, O late collision, O deferred
    O lost carrier, O no carrier, O PAUSE output
    O output buffer failures, O output buffers swapped out
FastEthernet0/22 is up, line protocol is up (connected)
 Hardware is Fast Ethernet, address is 000b.fd20.ba00 (bia
000b.fd20.ba00)
 MTU 1500 bytes, BW 100000 Kbit, DLY 100 usec,
     reliability 255/255, txload 1/255, rxload 1/255
 Encapsulation ARPA, loopback not set
 Keepalive set (10 sec)
 Full-duplex, 100Mb/s, media type is 10/100BaseTX
  input flow-control is off, output flow-control is unsupported
 ARP type: ARPA, ARP Timeout 04:00:00
 Last input 00:00:40, output 00:00:07, output hang never
 Last clearing of "show interface" counters never
 Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
 Queueing strategy: fifo
 Output queue: 0/40 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
    2805 packets input, 271376 bytes, 0 no buffer
    Received 1856 broadcasts (0 multicasts)
    0 runts, 0 giants, 0 throttles
    0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
    0 watchdog, 1848 multicast, 0 pause input
    O input packets with dribble condition detected
```

```
2801 packets output, 262784 bytes, 0 underruns
     O output errors, O collisions, 3 interface resets
     O babbles, O late collision, O deferred
     O lost carrier, O no carrier, O PAUSE output
     O output buffer failures, O output buffers swapped out
FastEthernet0/23 is up, line protocol is up (connected)
  Hardware is Fast Ethernet, address is 000b.fd20.ba00 (bia
000b.fd20.ba00)
  MTU 1500 bytes, BW 100000 Kbit, DLY 100 usec,
     reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation ARPA, loopback not set
  Keepalive set (10 sec)
  Full-duplex, 100Mb/s, media type is 10/100BaseTX
  input flow-control is off, output flow-control is unsupported
  ARP type: ARPA, ARP Timeout 04:00:00
  Last input 00:00:41, output 00:00:08, output hang never
  Last clearing of "show interface" counters never
  Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
  Queueing strategy: fifo
  Output queue: 0/40 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
     693 packets input, 80971 bytes, 0 no buffer
     Received 119 broadcasts (0 multicasts)
     0 runts, 0 giants, 0 throttles
     0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
     0 watchdog, 119 multicast, 0 pause input
     O input packets with dribble condition detected
     737 packets output, 86144 bytes, 0 underruns
     O output errors, O collisions, 3 interface resets
     O babbles, O late collision, O deferred
     O lost carrier, O no carrier, O PAUSE output
     O output buffer failures, O output buffers swapped out
FastEthernet0/24 is up, line protocol is up (connected)
  Hardware is Fast Ethernet, address is 000b.fd20.ba00 (bia
000b.fd20.ba00)
  MTU 1500 bytes, BW 100000 Kbit, DLY 100 usec,
     reliability 255/255, txload 1/255, rxload 1/255
  Encapsulation ARPA, loopback not set
  Keepalive set (10 sec)
  Full-duplex, 100Mb/s, media type is 10/100BaseTX
  input flow-control is off, output flow-control is unsupported
  ARP type: ARPA, ARP Timeout 04:00:00
  Last input 00:00:43, output 00:00:09, output hang never
  Last clearing of "show interface" counters never
  Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
  Queueing strategy: fifo
  Output queue: 0/40 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
     693 packets input, 80692 bytes, 0 no buffer
     Received 119 broadcasts (0 multicasts)
     0 runts, 0 giants, 0 throttles
     0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
```

```
0 watchdog, 119 multicast, 0 pause input
    O input packets with dribble condition detected
    742 packets output, 86520 bytes, 0 underruns
    O output errors, O collisions, 3 interface resets
    O babbles, O late collision, O deferred
    O lost carrier, O no carrier, O PAUSE output
    O output buffer failures, O output buffers swapped out
GigabitEthernet0/1 is administratively down, line protocol is down
(disabled)
  Hardware is Gigabit Ethernet, address is 000b.fd20.ba19 (bia
000b.fd20.ba19)
 MTU 1500 bytes, BW 10000 Kbit, DLY 1000 usec,
    reliability 255/255, txload 1/255, rxload 1/255
 Encapsulation ARPA, loopback not set
 Keepalive not set
 Auto-duplex, Auto-speed, link type is auto, media type is unknown
  input flow-control is off, output flow-control is off
 ARP type: ARPA, ARP Timeout 04:00:00
 Last input never, output never, output hang never
 Last clearing of "show interface" counters never
 Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
 Queueing strategy: fifo
 Output queue: 0/40 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
    O packets input, O bytes, O 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
    O input packets with dribble condition detected
    O packets output, O bytes, O underruns
    O output errors, O collisions, 1 interface resets
    O babbles, O late collision, O deferred
    O lost carrier, O no carrier, O PAUSE output
    O output buffer failures, O output buffers swapped out
GigabitEthernet0/2 is administratively down, line protocol is down
(disabled)
  Hardware is Gigabit Ethernet, address is 000b.fd20.bala (bia
000b.fd20.ba1a)
 MTU 1500 bytes, BW 10000 Kbit, DLY 1000 usec,
     reliability 255/255, txload 1/255, rxload 1/255
 Encapsulation ARPA, loopback not set
 Keepalive not set
 Auto-duplex, Auto-speed, link type is auto, media type is unknown
  input flow-control is off, output flow-control is off
 ARP type: ARPA, ARP Timeout 04:00:00
 Last input never, output never, output hang never
 Last clearing of "show interface" counters never
 Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
 Queueing strategy: fifo
 Output queue: 0/40 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
```

```
O packets input, O bytes, O 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
    O input packets with dribble condition detected
    O packets output, O bytes, O underruns
    O output errors, O collisions, 1 interface resets
    O babbles, O late collision, O deferred
    O lost carrier, O no carrier, O PAUSE output
    O output buffer failures, O output buffers swapped out
Port-channel12 is up, line protocol is up (connected)
 Hardware is EtherChannel, address is 000b.fd20.ba00 (bia
000b.fd20.ba00)
  Internet address is 10.2.4.14/30
 MTU 1500 bytes, BW 300000 Kbit, DLY 100 usec,
    reliability 255/255, txload 1/255, rxload 1/255
 Encapsulation ARPA, loopback not set
 Keepalive set (10 sec)
 Full-duplex, 100Mb/s, media type is 10/100BaseTX
 input flow-control is off, output flow-control is unsupported
 Members in this channel: Fa0/22 Fa0/23 Fa0/24
 ARP type: ARPA, ARP Timeout 04:00:00
 Last input 00:00:01, output 00:00:01, 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
    4194 packets input, 432992 bytes, 0 no buffer
    Received 2097 broadcasts (1326 IP multicasts)
    0 runts, 0 giants, 0 throttles
    0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
    0 watchdog, 2089 multicast, 0 pause input
    O input packets with dribble condition detected
    4280 packets output, 435462 bytes, 0 underruns
    O output errors, O collisions, 4 interface resets
    O babbles, O late collision, O deferred
    O lost carrier, O no carrier, O PAUSE output
     O output buffer failures, O output buffers swapped out
Port-channel23 is up, line protocol is up (connected)
  Hardware is EtherChannel, address is 000b.fd20.ba13 (bia
000b.fd20.ba13)
 MTU 1500 bytes, BW 300000 Kbit, DLY 100 usec,
     reliability 255/255, txload 1/255, rxload 1/255
 Encapsulation ARPA, loopback not set
 Keepalive set (10 sec)
 Full-duplex, 100Mb/s, media type is 10/100BaseTX
  input flow-control is off, output flow-control is unsupported
 Members in this channel: Fa0/19 Fa0/20 Fa0/21
 ARP type: ARPA, ARP Timeout 04:00:00
 Last input 00:00:01, output 00:46:42, output hang never
 Last clearing of "show interface" counters never
```

```
Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
 Queueing strategy: fifo
  Output queue: 0/40 (size/max)
  5 minute input rate 1000 bits/sec, 2 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
    14042 packets input, 1184358 bytes, 0 no buffer
    Received 11887 broadcasts (0 multicasts)
    0 runts, 0 giants, 0 throttles
    0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored
    0 watchdog, 11620 multicast, 0 pause input
    O input packets with dribble condition detected
    8163 packets output, 735621 bytes, 0 underruns
    O output errors, O collisions, 1 interface resets
    O babbles, O late collision, O deferred
    O lost carrier, O no carrier, O PAUSE output
    O output buffer failures, O output buffers swapped out
Port-channel24 is up, line protocol is up (connected)
 Hardware is EtherChannel, address is 000b.fd20.ba11 (bia
000b.fd20.ba11)
 MTU 1500 bytes, BW 300000 Kbit, DLY 100 usec,
    reliability 255/255, txload 1/255, rxload 1/255
 Encapsulation ARPA, loopback not set
 Keepalive set (10 sec)
 Full-duplex, 100Mb/s, media type is 10/100BaseTX
  input flow-control is off, output flow-control is unsupported
 Members in this channel: Fa0/16 Fa0/17 Fa0/18
 ARP type: ARPA, ARP Timeout 04:00:00
 Last input 00:00:01, output 00:00:00, output hang never
 Last clearing of "show interface" counters never
 Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0
 Queueing strategy: fifo
 Output queue: 0/40 (size/max)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
    8049 packets input, 702922 bytes, 0 no buffer
    Received 6084 broadcasts (0 multicasts)
    0 runts, 0 giants, 0 throttles
    O input errors, O CRC, O frame, O overrun, O ignored
    0 watchdog, 6076 multicast, 0 pause input
    O input packets with dribble condition detected
    8854 packets output, 760514 bytes, 0 underruns
    0 output errors, 0 collisions, 1 interface resets
    O babbles, O late collision, O deferred
     O lost carrier, O no carrier, O PAUSE output
    O output buffer failures, O output buffers swapped out
Tunnel67 is up, line protocol is up
 Hardware is Tunnel
 MTU 1514 bytes, BW 100 Kbit, DLY 50000 usec,
    reliability 255/255, txload 1/255, rxload 1/255
 Encapsulation TUNNEL, loopback not set
 Keepalive not set
 Tunnel source 10.2.4.14, destination 10.2.4.13
  Tunnel protocol/transport GRE/IP, key disabled, sequencing disabled
 Tunnel TTL 255
```

Checksumming of packets disabled Last input 00:00:04, output 00:00:21, output hang never Last clearing of "show interface" counters never Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0 Queueing strategy: fifo Output queue: 0/0 (size/max) 5 minute input rate 0 bits/sec, 0 packets/sec 5 minute output rate 0 bits/sec, 0 packets/sec 243 packets input, 38548 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 239 packets output, 22912 bytes, 0 underruns O output errors, O collisions, O interface resets O output buffer failures, O output buffers swapped out DSW2#

Port	Align-Err	FCS-Er	r Xmit-	Err Roy-	Err Un	derSize	
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 Fa0/13	0		0	0	0	0	
Fa0/13	0		0	0	0	0	
Fa0/14	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	1	0	
Fa0/24	0		0	0	0	0	
Gi0/1	0		0	0	0	0	
Gi0/2	0		0	0	0	0	
Po12	0		0	0	0	0	
Po23	0		0	0	0	0	
Po24	0		U	U	U	U	
Port	Single-Col	Multi-Col	Late-Col	Excess-Col	Carri	-Sen	Runts
Giants							
Fa0/1	0	0	0	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	O	O	U	O		O	O
Fa0/4	0	0	0	0		0	0
0	0	0	· ·	0		Ŭ	Ŭ
Fa0/5	0	0	0	0		0	0
0							
Fa0/6	0	0	0	0		0	0
0							
Fa0/7	0	0	0	0		0	0
0							
Fa0/8	0	0	0	0		0	0
0	_	-	-	-		•	_
Fa0/9	0	0	0	0		0	0
0	^	0	^	^		0	^
Fa0/10 0	0	0	0	0		0	0
U							

Fa0/11	0	0	0	0	0	0
Fa0/12	0	0	0	0	0	0
Fa0/13	0	0	0	0	0	0
0 Fa0/14	0	0	0	0	0	0
0 Fa0/15	0	0	0	0	0	0
0 Fa0/16	0	0	0	0	0	0
0 Fa0/17	0	0	0	0	0	0
0 Fa0/18	0	0	0	0	0	0
0 Fa0/19	0	0	0	0	0	0
0 Fa0/20	0	0	0	0	0	0
0 Fa0/21	0	0	0	0	0	0
0 Fa0/22	0	0	0	0	0	0
0 Fa0/23	0	0	0	0	0	0
0 Fa0/24	0	0	0	0	0	0
0 Gi0/1	0	0	0	0	0	0
0 Gi0/2	0	0	0	0	0	0
0 Po12	0	0	0	0	0	0
0 Po23	0	0	0	0	0	0
0 Po24 0	0	0	0	0	0	0
DSW2#						

DSW2#show cdp neighbors

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

Device ID	Local Intrfce	Holdtme	Capability	Platform	Port
ID R4 0/1	Fas 0/1	123	R S I	1841	Fas
DSW1 0/24	Fas 0/24	174	R S I	WS-C3550-	Fas
DSW1 0/23	Fas 0/23	174	R S I	WS-C3550-	Fas
DSW1	Fas 0/22	174	R S I	WS-C3550-	Fas
0/22 ASW1	Fas 0/21	172	SI	WS-C2950-	Fas
0/18 ASW1	Fas 0/20	172	SI	WS-C2950-	Fas
0/17 ASW1	Fas 0/19	172	SI	WS-C2950-	Fas
0/16 ASW2	Fas 0/18	172	SI	WS-C2950-	Fas
0/21 ASW2	Fas 0/16	172	SI	WS-C2950-	Fas
0/19 ASW2	Fas 0/17	172	SI	WS-C2950-	Fas
0/20 DSW2#					

```
_____
Device ID: R4
Entry address(es):
 IP address: 10.1.4.9
Platform: Cisco 1841, Capabilities: Router Switch IGMP
Interface: FastEthernet0/1, Port ID (outgoing port): FastEthernet0/1
Holdtime : 175 sec
Version :
Cisco IOS Software, 1841 Software (C1841-ADVIPSERVICESK9-M), Version
12.4(25b), RELEASE SOFTWARE (fc1)
Technical Support: http://www.cisco.com/techsupport
Copyright (c) 1986-2009 by Cisco Systems, Inc.
Compiled Wed 12-Aug-09 10:49 by prod rel team
advertisement version: 2
VTP Management Domain: ''
Duplex: full
Management address(es):
_____
Device ID: DSW1
Entry address(es):
```

DSW2#show cdp neighbors detail

IP address: 10.2.4.13 Platform: Cisco WS-C3550-24, Capabilities: Router Switch IGMP Interface: FastEthernet0/24, Port ID (outgoing port): FastEthernet0/24 Holdtime: 165 sec Version: Cisco IOS Software, C3550 Software (C3550-IPSERVICESK9-M), Version 12.2(44)SE6, RELEASE SOFTWARE (fc1) Copyright (c) 1986-2009 by Cisco Systems, Inc. Compiled Mon 09-Mar-09 20:28 by gereddy advertisement version: 2 Protocol Hello: OUI=0x00000C, Protocol ID=0x0112; payload len=27, value=00000000FFFFFFF0102250C00000000000000DBDE36E00FF0000 VTP Management Domain: 'netlearning' Duplex: full Management address(es): IP address: 10.2.4.13 ______ Device ID: DSW1 Entry address(es): IP address: 10.2.4.13 Platform: Cisco WS-C3550-24, Capabilities: Router Switch IGMP Interface: FastEthernet0/23, Port ID (outgoing port): FastEthernet0/23 Holdtime : 164 sec Version: Cisco IOS Software, C3550 Software (C3550-IPSERVICESK9-M), Version 12.2(44)SE6, RELEASE SOFTWARE (fc1) Copyright (c) 1986-2009 by Cisco Systems, Inc. Compiled Mon 09-Mar-09 20:28 by gereddy advertisement version: 2 Protocol Hello: OUI=0x000000C, Protocol ID=0x0112; payload len=27, value=00000000FFFFFFF0102250C00000000000000DBDE36E00FF0000 VTP Management Domain: 'netlearning' Duplex: full Management address(es): IP address: 10.2.4.13 Device ID: DSW1 Entry address(es): IP address: 10.2.4.13 Platform: Cisco WS-C3550-24, Capabilities: Router Switch IGMP Interface: FastEthernet0/22, Port ID (outgoing port): FastEthernet0/22 Holdtime : 164 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 Man 00 Man 00 20.20 by gameddy

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

```
advertisement version: 2
Protocol Hello: OUI=0x00000C, Protocol ID=0x0112; payload len=27,
value=00000000FFFFFFF0102250C00000000000000DBDE36E00FF0000
VTP Management Domain: 'netlearning'
Duplex: full
Management address(es):
  IP address: 10.2.4.13
Device ID: ASW1
Entry address(es):
 IP address: 192.168.1.131
Platform: cisco WS-C2950-24, Capabilities: Switch IGMP
Interface: FastEthernet0/21, Port ID (outgoing port): FastEthernet0/18
Holdtime : 162 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=00000000FFFFFFF0102250200000000000015FAAC46C0FF0000
VTP Management Domain: 'netlearning'
Native VLAN: 1
Duplex: full
Management address(es):
  IP address: 192.168.1.131
_____
Device ID: ASW1
Entry address(es):
 IP address: 192.168.1.131
Platform: cisco WS-C2950-24, Capabilities: Switch IGMP
Interface: FastEthernet0/20, Port ID (outgoing port): FastEthernet0/17
Holdtime: 160 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=0x000000C, Protocol ID=0x0112; payload len=27,
value=00000000FFFFFFFF01022502000000000000015FAAC46C0FF0000
VTP Management Domain: 'netlearning'
Native VLAN: 1
Duplex: full
```

```
Management address(es):
  IP address: 192.168.1.131
______
Device ID: ASW1
Entry address(es):
 IP address: 192.168.1.131
Platform: cisco WS-C2950-24, Capabilities: Switch IGMP
Interface: FastEthernet0/19, Port ID (outgoing port): FastEthernet0/16
Holdtime: 160 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=00000000FFFFFFF01022502000000000000015FAAC46C0FF0000
VTP Management Domain: 'netlearning'
Native VLAN: 1
Duplex: full
Management address(es):
  IP address: 192.168.1.131
_____
Device ID: ASW2
Entry address(es):
 IP address: 192.168.1.132
Platform: cisco WS-C2950-24, Capabilities: Switch IGMP
Interface: FastEthernet0/18, Port ID (outgoing port): FastEthernet0/21
Holdtime: 159 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=0x000000C, Protocol ID=0x0112; payload len=27,
value=00000000FFFFFFF01022501000000000000015FAB82880FF0000
VTP Management Domain: 'netlearning'
Native VLAN: 1
Duplex: full
Management address(es):
  IP address: 192.168.1.132
______
Device ID: ASW2
```

Entry address(es):

```
IP address: 192.168.1.132
Platform: cisco WS-C2950-24, Capabilities: Switch IGMP
Interface: FastEthernet0/16, Port ID (outgoing port): FastEthernet0/19
Holdtime: 158 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=00000000FFFFFFF01022501000000000000015FAB82880FF0000
VTP Management Domain: 'netlearning'
Native VLAN: 1
Duplex: full
Management address(es):
  IP address: 192.168.1.132
_____
Device ID: ASW2
Entry address(es):
  IP address: 192.168.1.132
Platform: cisco WS-C2950-24, Capabilities: Switch IGMP
Interface: FastEthernet0/17, Port ID (outgoing port): FastEthernet0/20
Holdtime: 157 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=00000000FFFFFFF0102250100000000000015FAB82880FF0000
VTP Management Domain: 'netlearning'
Native VLAN: 1
Duplex: full
Management address(es):
  IP address: 192.168.1.132
```

DSW2#

DSW2#show	arp					
Protocol	Address	Age	(min)	Hardware Addr	Type	Interface
Internet	10.2.4.13		47	000d.bde3.6e00	ARPA	Port-
channel12						
Internet	10.2.4.14		_	000b.fd20.ba00	ARPA	Port-
channel12						
Internet	10.1.4.10		_	000b.fd20.ba00	ARPA	
FastEtherr	net0/1					
Internet	10.1.4.9		105	0019.5578.1cb3	ARPA	
FastEtherr	net0/1					
Internet	10.2.1.1		42	000d.bde3.6e00	ARPA	Vlan10
Internet	10.2.2.2		46	000d.bde3.6e00	ARPA	Vlan20
Internet	10.2.2.1		_	000b.fd20.ba00	ARPA	Vlan20
Internet	10.2.1.2		_	000b.fd20.ba00	ARPA	Vlan10
Internet	10.2.1.4		19	001c.238e.dbbc	ARPA	Vlan10
Internet	192.168.1.130		_	000b.fd20.ba00	ARPA	Vlan200
Internet	10.2.1.254		_	0000.0c07.ac0a	ARPA	Vlan10
DSW2#						

DSW2#show	ip arp				
Protocol	Address	Age (min)	Hardware Addr	Type	Interface
Internet	10.2.4.13	47	000d.bde3.6e00	ARPA	Port-
channel12					
Internet	10.2.4.14	_	000b.fd20.ba00	ARPA	Port-
channel12					
Internet	10.1.4.10	_	000b.fd20.ba00	ARPA	
FastEthern	net0/1				
Internet	10.1.4.9	105	0019.5578.1cb3	ARPA	
FastEther					
Internet	'	42	000d.bde3.6e00	ARPA	Vlan10
Internet		46	000d.bde3.6e00	ARPA	Vlan20
Internet		_	000b.fd20.ba00	ARPA	Vlan20
Internet	10.2.1.2	_	000b.fd20.ba00	ARPA	Vlan10
Internet	10.2.1.4	19	001c.238e.dbbc	ARPA	Vlan10
Internet	192.168.1.130	_	000b.fd20.ba00	ARPA	Vlan200
Internet	10.2.1.254	_	0000.0c07.ac0a	ARPA	Vlan10
DSW2#					
222					

```
DSW2#show ip interface
Vlan1 is administratively down, line protocol is down
  Internet protocol processing disabled
Vlan10 is up, line protocol is up
  Internet address is 10.2.1.2/24
  Broadcast address is 255.255.255.255
  Address determined by non-volatile memory
 MTU is 1500 bytes
  Helper address is 10.1.4.9
  Directed broadcast forwarding is disabled
  Multicast reserved groups joined: 224.0.0.1 224.0.0.2 224.0.0.22
224.0.0.13
      224.0.0.10
  Outgoing access list is not set
  Inbound access list is not set
  Proxy ARP is enabled
  Local Proxy ARP is disabled
  Security level is default
  Split horizon is enabled
  ICMP redirects are always sent
  ICMP unreachables are always sent
  ICMP mask replies are never sent
  IP fast switching is enabled
  IP CEF switching is enabled
  IP CEF switching turbo vector
  IP Null turbo vector
```

```
IP multicast fast switching is enabled
  IP multicast distributed fast switching is disabled
  IP route-cache flags are Fast, CEF
  Router Discovery is disabled
  IP output packet accounting is disabled
  IP access violation accounting is disabled
  TCP/IP header compression is disabled
  RTP/IP header compression is disabled
  Probe proxy name replies are disabled
  Policy routing is disabled
  Network address translation is disabled
  BGP Policy Mapping is disabled
  WCCP Redirect outbound is disabled
  WCCP Redirect inbound is disabled
  WCCP Redirect exclude is disabled
Vlan20 is up, line protocol is up
  Internet address is 10.2.2.1/24
  Broadcast address is 255.255.255.255
  Address determined by non-volatile memory
 MTU is 1500 bytes
  Helper address is not set
  Directed broadcast forwarding is disabled
  Multicast reserved groups joined: 224.0.0.1 224.0.0.2 224.0.0.22
224.0.0.13
      224.0.0.10
  Outgoing access list is not set
  Inbound access list is not set
  Proxy ARP is enabled
  Local Proxy ARP is disabled
  Security level is default
  Split horizon is enabled
  ICMP redirects are always sent
  ICMP unreachables are always sent
  ICMP mask replies are never sent
  IP fast switching is enabled
  IP CEF switching is enabled
  IP CEF switching turbo vector
  IP Null turbo vector
  IP multicast fast switching is enabled
  IP multicast distributed fast switching is disabled
  IP route-cache flags are Fast, CEF
  Router Discovery is disabled
  IP output packet accounting is disabled
  IP access violation accounting is disabled
  TCP/IP header compression is disabled
  RTP/IP header compression is disabled
  Probe proxy name replies are disabled
  Policy routing is disabled
 Network address translation is disabled
  BGP Policy Mapping is disabled
  WCCP Redirect outbound is disabled
  WCCP Redirect inbound is disabled
  WCCP Redirect exclude is disabled
Vlan200 is up, line protocol is up
```

```
Internet address is 192.168.1.130/27
  Broadcast address is 255.255.255.255
  Address determined by non-volatile memory
  MTU is 1500 bytes
  Helper address is not set
  Directed broadcast forwarding is disabled
  Outgoing access list is not set
  Inbound access list is not set
  Proxy ARP is enabled
  Local Proxy ARP is disabled
  Security level is default
  Split horizon is enabled
  ICMP redirects are always sent
  ICMP unreachables are always sent
  ICMP mask replies are never sent
  IP fast switching is enabled
  IP CEF switching is enabled
  IP CEF switching turbo vector
  IP Null turbo vector
  IP multicast fast switching is enabled
  IP multicast distributed fast switching is disabled
  IP route-cache flags are Fast, CEF
  Router Discovery is disabled
  IP output packet accounting is disabled
  IP access violation accounting is disabled
  TCP/IP header compression is disabled
  RTP/IP header compression is disabled
  Probe proxy name replies are disabled
  Policy routing is disabled
  Network address translation is disabled
  BGP Policy Mapping is disabled
  WCCP Redirect outbound is disabled
  WCCP Redirect inbound is disabled
  WCCP Redirect exclude is disabled
FastEthernet0/1 is up, line protocol is up
  Internet address is 10.1.4.10/30
  Broadcast address is 255.255.255.255
  Address determined by non-volatile memory
  MTU is 1500 bytes
  Helper address is not set
  Directed broadcast forwarding is disabled
  Multicast reserved groups joined: 224.0.0.1 224.0.0.2 224.0.0.22
224.0.0.13
      224.0.0.10
  Outgoing access list is not set
  Inbound access list is not set
  Proxy ARP is enabled
  Local Proxy ARP is disabled
  Security level is default
  Split horizon is enabled
  ICMP redirects are always sent
  ICMP unreachables are always sent
  ICMP mask replies are never sent
  IP fast switching is enabled
```

```
IP CEF switching is enabled
  IP CEF switching turbo vector
  IP Null turbo vector
  IP multicast fast switching is enabled
  IP multicast distributed fast switching is disabled
  IP route-cache flags are Fast, CEF
  Router Discovery is disabled
  IP output packet accounting is disabled
  IP access violation accounting is disabled
  TCP/IP header compression is disabled
  RTP/IP header compression is disabled
  Probe proxy name replies are disabled
  Policy routing is disabled
  Network address translation is disabled
  BGP Policy Mapping is disabled
  WCCP Redirect outbound is disabled
  WCCP Redirect inbound is disabled
  WCCP Redirect exclude is disabled
FastEthernet0/2 is administratively down, line protocol is down
  Inbound access list is not set
FastEthernet0/3 is down, line protocol is down
  Inbound access list is not set
FastEthernet0/4 is administratively down, line protocol is down
  Inbound access list is not set
FastEthernet0/5 is administratively down, line protocol is down
  Inbound access list is not set
FastEthernet0/6 is administratively down, line protocol is down
  Inbound access list is not set
FastEthernet0/7 is administratively down, line protocol is down
  Inbound access list is not set
FastEthernet0/8 is administratively down, line protocol is down
  Inbound access list is not set
FastEthernet0/9 is administratively down, line protocol is down
  Inbound access list is not set
FastEthernet0/10 is administratively down, line protocol is down
  Inbound access list is not set
FastEthernet0/11 is administratively down, line protocol is down
  Inbound access list is not set
FastEthernet0/12 is administratively down, line protocol is down
  Inbound access list is not set
FastEthernet0/13 is administratively down, line protocol is down
  Inbound access list is not set
FastEthernet0/14 is administratively down, line protocol is down
  Inbound access list is not set
FastEthernet0/15 is down, line protocol is down
  Inbound access list is not set
FastEthernet0/16 is up, line protocol is up
  Inbound access list is not set
FastEthernet0/17 is up, line protocol is up
  Inbound access list is not set
FastEthernet0/18 is up, line protocol is up
  Inbound access list is not set
FastEthernet0/19 is up, line protocol is up
  Inbound access list is not set
```

```
FastEthernet0/20 is up, line protocol is up
  Inbound access list is not set
FastEthernet0/21 is up, line protocol is up
  Inbound access list is not set
FastEthernet0/22 is up, line protocol is up
  Internet protocol processing disabled
FastEthernet0/23 is up, line protocol is up
  Internet protocol processing disabled
FastEthernet0/24 is up, line protocol is up
  Internet protocol processing disabled
GigabitEthernet0/1 is administratively down, line protocol is down
  Inbound access list is not set
GigabitEthernet0/2 is administratively down, line protocol is down
  Inbound access list is not set
Port-channel12 is up, line protocol is up
  Internet address is 10.2.4.14/30
  Broadcast address is 255.255.255.255
  Address determined by non-volatile memory
  MTU is 1500 bytes
  Helper address is not set
  Directed broadcast forwarding is disabled
  Multicast reserved groups joined: 224.0.0.1 224.0.0.2 224.0.0.22
224.0.0.13
      224.0.0.10
  Outgoing access list is not set
  Inbound access list is not set
  Proxy ARP is enabled
  Local Proxy ARP is disabled
  Security level is default
  Split horizon is enabled
  ICMP redirects are always sent
  ICMP unreachables are always sent
  ICMP mask replies are never sent
  IP fast switching is enabled
  IP CEF switching is enabled
  IP CEF switching turbo vector
  IP Null turbo vector
  IP multicast fast switching is enabled
  IP multicast distributed fast switching is disabled
  IP route-cache flags are Fast, CEF
  Router Discovery is disabled
  IP output packet accounting is disabled
  IP access violation accounting is disabled
  TCP/IP header compression is disabled
  RTP/IP header compression is disabled
  Probe proxy name replies are disabled
  Policy routing is disabled
  Network address translation is disabled
  BGP Policy Mapping is disabled
  WCCP Redirect outbound is disabled
  WCCP Redirect inbound is disabled
  WCCP Redirect exclude is disabled
Port-channel23 is up, line protocol is up
Port-channel24 is up, line protocol is up
```

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

DSW2#show ip cef		
Prefix	Next Hop	Interface
0.0.0.0/0	10.1.4.9	FastEthernet0/1
0.0.0.0/32	receive	
10.1.1.8/30	10.1.4.9	FastEthernet0/1
10.1.4.4/30	10.2.1.1	Vlan10
	10.2.2.2	Vlan20
10.1.4.8/30	attached	FastEthernet0/1
10.1.4.8/32	receive	FastEthernet0/1
10.1.4.9/32	attached	FastEthernet0/1
10.1.4.10/32	receive	FastEthernet0/1
10.1.4.11/32	receive	FastEthernet0/1
10.2.1.0/24	attached	Vlan10
10.2.1.0/32	receive	Vlan10
10.2.1.1/32	attached	Vlan10

10 0 1 0 /00		
10.2.1.2/32	receive	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	receive	Vlan20
10.2.2.2/32	attached	Vlan20
10.2.2.255/32	receive	Vlan20
10.2.4.12/30	attached	Port-channel12
10.2.4.12/32	receive	Port-channel12
10.2.4.13/32	attached	Port-channel12
10.2.4.14/32	receive	Port-channel12
10.2.4.15/32	receive	Port-channel12
192.168.1.128/27	attached	Vlan200
192.168.1.128/32	receive	Vlan200
192.168.1.130/32	receive	Vlan200
192.168.1.159/32	receive	Vlan200
224.0.0.0/4	multicast	
224.0.0.0/24	receive	
240.0.0.0/4	drop	
255.255.255.255/32	receive	
DSW2#		

```
DSW2#show tcp statistics
Rcvd: 0 Total, 0 no port
      O checksum error, O bad offset, O too short
      0 packets (0 bytes) in sequence
      0 dup packets (0 bytes)
      0 partially dup packets (0 bytes)
      0 out-of-order packets (0 bytes)
      O packets (O 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)
      O data packets (O bytes) retransmitted
      0 data packets (0 bytes) fastretransmitted
      0 ack only packets (0 delayed)
      0 window probe packets, 0 window update packets
O Connections initiated, O connections accepted, O connections
established
O Connections closed (including O dropped, O embryonic dropped)
O Total rxmt timeout, O connections dropped in rxmt timeout
O Keepalive timeout, O keepalive probe, O Connections dropped in
keepalive
```

DSW2#

```
DSW2#show ip protocols
*** IP Routing is NSF aware ***
Routing Protocol is "eigrp 10"
  Outgoing update filter list for all interfaces is not set
  Incoming update filter list for all interfaces is not set
  Default networks flagged in outgoing updates
  Default networks accepted from incoming updates
  Redistributing: eigrp 10
Address Family Protocol EIGRP-IPv4: (10)
  EIGRP metric weight K1=1, K2=0, K3=1, K4=0, K5=0
  EIGRP maximum hopcount 100
  EIGRP maximum metric variance 1
  EIGRP NSF-aware route hold timer is 240
  Topologies : 0 (base)
  Automatic network summarization is not in effect
 Maximum path: 4
  Routing for Networks:
    10.1.4.10/32
    10.2.1.2/32
   10.2.2.1/32
    10.2.4.14/32
  Routing Information Sources:
   Gateway Distance Last Update
    10.2.4.13
                         90
                                00:47:28
    10.1.4.9
                          90
                                 00:47:28
    10.2.1.1
                          90
                                 00:47:28
    10.2.2.2
                          90
                                 00:47:28
  Distance: internal 90 external 170
```

DSW2#

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

DSW2#show ip eigrp neighbors EIGRP-IPv4:(10) neighbors for process 10 Address Interface Hold Uptime SRTT RTO Q Seq (sec) (ms) Cnt Num 13 00:47:52 816 4896 0 3 10.2.1.1 V110 40 10.2.2.2 V120 12 00:47:56 2 200 0 39 10.2.4.13 11 00:48:24 0 Po12 200 0 1 38 1 10.1.4.9 Fa0/1 12 01:46:15 1 200 0 155

DSW2#

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

		Xmit Queue	Mean	Pacing Time	Multicast
Pending Interface Routes	Peers	Un/Reliable	SRTT	Un/Reliable	Flow Timer
Fa0/1	1	0/0	1	0/1	50
0					
V110	1	0/0	816	0/1	5108
0 V120	1	0/0	2	0/1	50
0	_	0,0	2	0/1	30
Po12	1	0/0	1	0/1	50
0					
DSW2#					

DSW2#show vlan

VLAN	Name					tus 1	Ports			
 1 Fa0/	 defaul 5	lt			act	ive 1	Fa0/2, I	Fa0/3, Fa	0/4,	
Fa0/	9]	Fa0/6, I	Fa0/7, Fa	0/8,	
Fa0/	13]	Fa0/10,	Fa0/11,	Fa0/12,	
						1	Fa0/14,	Fa0/15,	Gi0/1,	
20 200 1002 1003 1004	VLANOO VLANOO VLANOO fddi-o trcrf- fddinoo	020			act act	ive				
VLAN Tran		SAID	MTU	Parent	RingNo	Bridgel	No Stp	BrdgMode	Trans1	
										_
10 20 200 1002 1003 1004	enet enet enet fddi trcrf fdnet	100001 100010 100020 100200 101002 101003 101004 101005	1500 1500 1500 1500 4472 1500		- - - - 3276	- - - -	- - - - ieee ibm	- - srb	0 0 0 0 0 0	0 0 0 0 0 0
VLAN	AREHO	ps STEHops	Backup	CRF						
1003	7	7	off							
Remo	te SPA1	N VLANS								
Prim	ary Sed	condary Typ	e		Ports					
	_									

DSW2#

DSW2#show spanning-tree

VLAN0010

Spanning tree enabled protocol ieee

Root ID Priority 4106 Address 000d.bde3.6e00

Cost 18
Port 66 (Port-channel23)

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

Bridge ID Priority 8202 (priority 8192 sys-id-ext 10)

Address 000b.fd20.ba00

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

Aging Time 300

Role Sts Cost Prio.Nbr Type

Root FWD 9 128.66 P2p Po23

VLAN0020

Spanning tree enabled protocol ieee

Root ID Priority 4116
Address 000b.fd20.ba00 This bridge is the root

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

Bridge ID Priority 4116 (priority 4096 sys-id-ext 20) Address 000b.fd20.ba00

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

Aging Time 300

Role Sts Cost Prio.Nbr Type Interface

Po24 Desg FWD 9 128.67 P2p

VLAN0200

Spanning tree enabled protocol ieee

Root ID Priority 4296

Address 000d.bde3.6e00

18 Cost

Port 66 (Port-channel23)

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

Bridge ID Priority 8392 (priority 8192 sys-id-ext 200) Address 000b.fd20.ba00

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

Aging Time 300

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

DSW2#

DSW2#show interfaces status

Port Name Fa0/1 10/100BaseTX	Status connected	Vlan routed	Duplex a-full	
Fa0/2	disabled	1	auto	auto
10/100BaseTX Fa0/3 10/100BaseTX	notconnect	1	auto	auto
Fa0/4	disabled	1	auto	auto
10/100BaseTX Fa0/5 10/100BaseTX	disabled	1	auto	auto
Fa0/6	disabled	1	auto	auto
10/100BaseTX Fa0/7 10/100BaseTX	disabled	1	auto	auto
Fa0/8	disabled	1	auto	auto
10/100BaseTX Fa0/9 10/100BaseTX	disabled	1	auto	auto
Fa0/10	disabled	1	auto	auto
10/100BaseTX Fa0/11 10/100BaseTX	disabled	1	auto	auto
Fa0/12	disabled	1	auto	auto
10/100BaseTX Fa0/13 10/100BaseTX	disabled	1	auto	auto
Fa0/14 10/100BaseTX	disabled	1	auto	auto

Fa0/15 10/100BaseTX	notconnect	1	auto	auto
Fa0/16	connected	trunk	a-full	a-100
10/100BaseTX	. 1		6 11	100
Fa0/17 10/100BaseTX	connected	trunk	a-full	a-100
Fa0/18	connected	trunk	a-full	a-100
10/100BaseTX				
Fa0/19	connected	trunk	a-full	a-100
10/100BaseTX Fa0/20	aannaa+ad	+ 2012 to 12	o f11	- 100
10/100BaseTX	connected	trunk	a-full	a-100
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	connected	Toucea	a rurr	a 100
Gi0/1	disabled	1	auto	auto
unknown				
Gi0/2	disabled	1	auto	auto
unknown				100
Po12	connected	routed	a-full	
Po23	connected	trunk	a-full	
P024	connected	trunk	a-full	a-100
DSW2#				

DSW2#show interfaces switchport

Name: Fa0/2

Switchport: Enabled

Administrative Mode: static access

Operational Mode: down

Administrative Trunking Encapsulation: negotiate

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

Trunking Native Mode VLAN: 1 (default)

Administrative Native VLAN tagging: enabled

Voice VLAN: none

Administrative private-vlan host-association: none

Administrative private-vlan mapping: none

Administrative private-vlan trunk native VLAN: none

Administrative private-vlan trunk Native VLAN tagging: enabled

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

Administrative private-vlan trunk mappings: none

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

Capture Mode Disabled

Capture VLANs Allowed: ALL

Protected: false

Unknown unicast blocked: disabled Unknown multicast blocked: disabled

Appliance trust: none

Name: Fa0/3

Switchport: Enabled

Administrative Mode: static access

Operational Mode: down

Administrative Trunking Encapsulation: negotiate

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

Trunking Native Mode VLAN: 1 (default)

Administrative Native VLAN tagging: enabled

Voice VLAN: none

Administrative private-vlan host-association: none

Administrative private-vlan mapping: none

Administrative private-vlan trunk native VLAN: none

Administrative private-vlan trunk Native VLAN tagging: enabled

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

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

Capture Mode Disabled
Capture VLANs Allowed: ALL

Protected: false

Unknown unicast blocked: disabled Unknown multicast blocked: disabled

Appliance trust: none

Name: Fa0/4

Switchport: Enabled

Administrative Mode: static access

Operational Mode: down

Administrative Trunking Encapsulation: negotiate

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

Trunking Native Mode VLAN: 1 (default)

Administrative Native VLAN tagging: enabled

Voice VLAN: none

Administrative private-vlan host-association: none

Administrative private-vlan mapping: none

Administrative private-vlan trunk native VLAN: none

Administrative private-vlan trunk Native VLAN tagging: enabled

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

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

Capture Mode Disabled

Capture VLANs Allowed: ALL

Protected: false

Unknown unicast blocked: disabled Unknown multicast blocked: disabled

Appliance trust: none

Name: Fa0/5

Switchport: Enabled

Administrative Mode: static access

Operational Mode: down

Administrative Trunking Encapsulation: negotiate

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

Trunking Native Mode VLAN: 1 (default)

Administrative Native VLAN tagging: enabled

Voice VLAN: none

Administrative private-vlan host-association: none

Administrative private-vlan mapping: none

Administrative private-vlan trunk native VLAN: none

Administrative private-vlan trunk Native VLAN tagging: enabled

Administrative private-vlan trunk encapsulation: dotlq Administrative private-vlan trunk normal VLANs: none Administrative private-vlan trunk associations: none Administrative private-vlan trunk mappings: none

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

Capture Mode Disabled

Capture VLANs Allowed: ALL

Protected: false

Unknown unicast blocked: disabled Unknown multicast blocked: disabled

Appliance trust: none

Name: Fa0/6

Switchport: Enabled

Administrative Mode: static access

Operational Mode: down

Administrative Trunking Encapsulation: negotiate

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

Trunking Native Mode VLAN: 1 (default)
Administrative Native VLAN tagging: enabled

Voice VLAN: none

Administrative private-vlan host-association: none

Administrative private-vlan mapping: none

Administrative private-vlan trunk native VLAN: none

Administrative private-vlan trunk Native VLAN tagging: enabled

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

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

Capture Mode Disabled

Capture VLANs Allowed: ALL

Protected: false

Unknown unicast blocked: disabled Unknown multicast blocked: disabled

Appliance trust: none

Name: Fa0/7

Switchport: Enabled

Administrative Mode: static access

Operational Mode: down

Administrative Trunking Encapsulation: negotiate

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

Trunking Native Mode VLAN: 1 (default)

Administrative Native VLAN tagging: enabled

Voice VLAN: none

Administrative private-vlan host-association: none

Administrative private-vlan mapping: none

Administrative private-vlan trunk native VLAN: none

Administrative private-vlan trunk Native VLAN tagging: enabled

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

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

Capture Mode Disabled Capture VLANs Allowed: ALL

Protected: false

Unknown unicast blocked: disabled Unknown multicast blocked: disabled

Appliance trust: none

Name: Fa0/8

Switchport: Enabled

Administrative Mode: static access

Operational Mode: down

Administrative Trunking Encapsulation: negotiate

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

Trunking Native Mode VLAN: 1 (default)

Administrative Native VLAN tagging: enabled

Voice VLAN: none

Administrative private-vlan host-association: none

Administrative private-vlan mapping: none

Administrative private-vlan trunk native VLAN: none

Administrative private-vlan trunk Native VLAN tagging: enabled

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

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

Capture Mode Disabled Capture VLANs Allowed: ALL

Protected: false

Unknown unicast blocked: disabled Unknown multicast blocked: disabled

Appliance trust: none

Name: Fa0/9

Switchport: Enabled

Administrative Mode: static access

Operational Mode: down

Administrative Trunking Encapsulation: negotiate

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

Trunking Native Mode VLAN: 1 (default)
Administrative Native VLAN tagging: enabled

Voice VLAN: none

Administrative private-vlan host-association: none

Administrative private-vlan mapping: none

Administrative private-vlan trunk native VLAN: none

Administrative private-vlan trunk Native VLAN tagging: enabled

Administrative private-vlan trunk encapsulation: dotlq Administrative private-vlan trunk normal VLANs: none Administrative private-vlan trunk associations: none Administrative private-vlan trunk mappings: none

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

Capture Mode Disabled Capture VLANs Allowed: ALL

Protected: false

Unknown unicast blocked: disabled Unknown multicast blocked: disabled

Appliance trust: none

Name: Fa0/10

Switchport: Enabled

Administrative Mode: static access

Operational Mode: down

Administrative Trunking Encapsulation: negotiate

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

Trunking Native Mode VLAN: 1 (default)
Administrative Native VLAN tagging: enabled

Voice VLAN: none

Administrative private-vlan host-association: none

Administrative private-vlan mapping: none

Administrative private-vlan trunk native VLAN: none

Administrative private-vlan trunk Native VLAN tagging: enabled

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

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

Capture Mode Disabled Capture VLANs Allowed: ALL

Protected: false

Unknown unicast blocked: disabled

Unknown multicast blocked: disabled

Appliance trust: none

Name: Fa0/11

Switchport: Enabled

Administrative Mode: static access

Operational Mode: down

Administrative Trunking Encapsulation: negotiate

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

Trunking Native Mode VLAN: 1 (default)

Administrative Native VLAN tagging: enabled

Voice VLAN: none

Administrative private-vlan host-association: none

Administrative private-vlan mapping: none

Administrative private-vlan trunk native VLAN: none

Administrative private-vlan trunk Native VLAN tagging: enabled

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

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

Capture Mode Disabled
Capture VLANs Allowed: ALL

Protected: false

Unknown unicast blocked: disabled Unknown multicast blocked: disabled

Appliance trust: none

Name: Fa0/12

Switchport: Enabled

Administrative Mode: static access

Operational Mode: down

Administrative Trunking Encapsulation: negotiate

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

Trunking Native Mode VLAN: 1 (default)

Administrative Native VLAN tagging: enabled

Voice VLAN: none

Administrative private-vlan host-association: none

Administrative private-vlan mapping: none

Administrative private-vlan trunk native VLAN: none

Administrative private-vlan trunk Native VLAN tagging: enabled

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

Operational private-vlan: none

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

Capture Mode Disabled

Capture VLANs Allowed: ALL

Protected: false

Unknown unicast blocked: disabled Unknown multicast blocked: disabled

Appliance trust: none

Name: Fa0/13

Switchport: Enabled

Administrative Mode: static access

Operational Mode: down

Administrative Trunking Encapsulation: negotiate

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

Trunking Native Mode VLAN: 1 (default)
Administrative Native VLAN tagging: enabled

Voice VLAN: none

Administrative private-vlan host-association: none

Administrative private-vlan mapping: none

Administrative private-vlan trunk native VLAN: none

Administrative private-vlan trunk Native VLAN tagging: enabled

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

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

Capture Mode Disabled Capture VLANs Allowed: ALL

Protected: false

Unknown unicast blocked: disabled Unknown multicast blocked: disabled

Appliance trust: none

Name: Fa0/14

Switchport: Enabled

Administrative Mode: static access

Operational Mode: down

Administrative Trunking Encapsulation: negotiate

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

Trunking Native Mode VLAN: 1 (default)

Administrative Native VLAN tagging: enabled

Voice VLAN: none

Administrative private-vlan host-association: none

Administrative private-vlan mapping: none

Administrative private-vlan trunk native VLAN: none

Administrative private-vlan trunk Native VLAN tagging: enabled

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

Administrative private-vlan trunk mappings: none

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

Capture Mode Disabled Capture VLANs Allowed: ALL

Protected: false

Unknown unicast blocked: disabled Unknown multicast blocked: disabled

Appliance trust: none

Name: Fa0/15

Switchport: Enabled

Administrative Mode: static access

Operational Mode: down

Administrative Trunking Encapsulation: negotiate

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

Trunking Native Mode VLAN: 1 (default)

Administrative Native VLAN tagging: enabled

Voice VLAN: none

Administrative private-vlan host-association: none

Administrative private-vlan mapping: none

Administrative private-vlan trunk native VLAN: none

Administrative private-vlan trunk Native VLAN tagging: enabled

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

Operational private-vlan: none

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

Capture Mode Disabled

Capture VLANs Allowed: ALL

Protected: false

Unknown unicast blocked: disabled Unknown multicast blocked: disabled

Appliance trust: none

Name: Fa0/16

Switchport: Enabled

Administrative Mode: trunk

Operational Mode: trunk (member of bundle Po24) Administrative Trunking Encapsulation: dot1q Operational Trunking Encapsulation: dot1q

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

Trunking Native Mode VLAN: 1 (default)
Administrative Native VLAN tagging: enabled

Voice VLAN: none

Administrative private-vlan host-association: none

Administrative private-vlan mapping: none

Administrative private-vlan trunk native VLAN: none

Administrative private-vlan trunk Native VLAN tagging: enabled

Administrative private-vlan trunk encapsulation: dotlq Administrative private-vlan trunk normal VLANs: none Administrative private-vlan trunk associations: none Administrative private-vlan trunk mappings: none

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

Capture Mode Disabled Capture VLANs Allowed: ALL

Protected: false

Unknown unicast blocked: disabled Unknown multicast blocked: disabled

Appliance trust: none

Name: Fa0/17

Switchport: Enabled

Administrative Mode: trunk

Operational Mode: trunk (member of bundle Po24) Administrative Trunking Encapsulation: dot1q Operational Trunking Encapsulation: dot1q

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

Trunking Native Mode VLAN: 1 (default)

Administrative Native VLAN tagging: enabled

Voice VLAN: none

Administrative private-vlan host-association: none

Administrative private-vlan mapping: none

Administrative private-vlan trunk native VLAN: none

Administrative private-vlan trunk Native VLAN tagging: enabled

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

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

Capture Mode Disabled
Capture VLANs Allowed: ALL

Protected: false

Unknown unicast blocked: disabled Unknown multicast blocked: disabled

Appliance trust: none

Name: Fa0/18

Switchport: Enabled

Administrative Mode: trunk

Operational Mode: trunk (member of bundle Po24) Administrative Trunking Encapsulation: dot1q Operational Trunking Encapsulation: dot1q

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

Trunking Native Mode VLAN: 1 (default)

Administrative Native VLAN tagging: enabled

Voice VLAN: none

Administrative private-vlan host-association: none

Administrative private-vlan mapping: none

Administrative private-vlan trunk native VLAN: none

Administrative private-vlan trunk Native VLAN tagging: enabled

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

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

Capture Mode Disabled Capture VLANs Allowed: ALL

Protected: false

Unknown unicast blocked: disabled Unknown multicast blocked: disabled

Appliance trust: none

Name: Fa0/19

Switchport: Enabled

Administrative Mode: trunk

Operational Mode: trunk (member of bundle Po23) Administrative Trunking Encapsulation: dot1q Operational Trunking Encapsulation: dot1q

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

Trunking Native Mode VLAN: 1 (default)
Administrative Native VLAN tagging: enabled

Voice VLAN: none

Administrative private-vlan host-association: none

Administrative private-vlan mapping: none

Administrative private-vlan trunk native VLAN: none

Administrative private-vlan trunk Native VLAN tagging: enabled

Administrative private-vlan trunk encapsulation: dotlq Administrative private-vlan trunk normal VLANs: none Administrative private-vlan trunk associations: none Administrative private-vlan trunk mappings: none

Operational private-vlan: none Trunking VLANs Enabled: 10,200 Pruning VLANs Enabled: 2-1001

Capture Mode Disabled Capture VLANs Allowed: ALL

Protected: false

Unknown unicast blocked: disabled Unknown multicast blocked: disabled

Appliance trust: none

Name: Fa0/20

Switchport: Enabled

Administrative Mode: trunk

Operational Mode: trunk (member of bundle Po23) Administrative Trunking Encapsulation: dot1q Operational Trunking Encapsulation: dot1q

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

Trunking Native Mode VLAN: 1 (default)
Administrative Native VLAN tagging: enabled

Voice VLAN: none

Administrative private-vlan host-association: none

Administrative private-vlan mapping: none

Administrative private-vlan trunk native VLAN: none

Administrative private-vlan trunk Native VLAN tagging: enabled

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

Operational private-vlan: none Trunking VLANs Enabled: 10,200 Pruning VLANs Enabled: 2-1001

Capture Mode Disabled
Capture VLANs Allowed: ALL

Protected: false

Unknown unicast blocked: disabled Unknown multicast blocked: disabled

Appliance trust: none

Name: Fa0/21

Switchport: Enabled

Administrative Mode: trunk

Operational Mode: trunk (member of bundle Po23) Administrative Trunking Encapsulation: dot1q Operational Trunking Encapsulation: dot1q

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

Trunking Native Mode VLAN: 1 (default)
Administrative Native VLAN tagging: enabled

Voice VLAN: none

Administrative private-vlan host-association: none

Administrative private-vlan mapping: none

Administrative private-vlan trunk native VLAN: none

Administrative private-vlan trunk Native VLAN tagging: enabled

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

Operational private-vlan: none Trunking VLANs Enabled: 10,200 Pruning VLANs Enabled: 2-1001

Capture Mode Disabled

Capture VLANs Allowed: ALL

Protected: false

Unknown unicast blocked: disabled Unknown multicast blocked: disabled

Appliance trust: none

Name: Gi0/1

Switchport: Enabled

Administrative Mode: dynamic desirable

Operational Mode: down

Administrative Trunking Encapsulation: negotiate

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

Trunking Native Mode VLAN: 1 (default)

Administrative Native VLAN tagging: enabled

Voice VLAN: none

Administrative private-vlan host-association: none

Administrative private-vlan mapping: none

Administrative private-vlan trunk native VLAN: none

Administrative private-vlan trunk Native VLAN tagging: enabled

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

Administrative private-vlan trunk mappings: none

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

Capture Mode Disabled
Capture VLANs Allowed: ALL

Protected: false

Unknown unicast blocked: disabled Unknown multicast blocked: disabled

Appliance trust: none

Name: Gi0/2

Switchport: Enabled

Administrative Mode: dynamic desirable

Operational Mode: down

Administrative Trunking Encapsulation: negotiate

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

Trunking Native Mode VLAN: 1 (default)

Administrative Native VLAN tagging: enabled

Voice VLAN: none

Administrative private-vlan host-association: none

Administrative private-vlan mapping: none

Administrative private-vlan trunk native VLAN: none

Administrative private-vlan trunk Native VLAN tagging: enabled

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

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

Protected: false

Unknown unicast blocked: disabled Unknown multicast blocked: disabled

Appliance trust: none

Name: Po23

Switchport: Enabled

Administrative Mode: trunk Operational Mode: trunk

Administrative Trunking Encapsulation: dot1q Operational Trunking Encapsulation: dot1q

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

Trunking Native Mode VLAN: 1 (default)

Administrative Native VLAN tagging: enabled

Voice VLAN: none

Administrative private-vlan host-association: none

Administrative private-vlan mapping: none

Administrative private-vlan trunk native VLAN: none

Administrative private-vlan trunk Native VLAN tagging: enabled

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

Operational private-vlan: none Trunking VLANs Enabled: 10,200

Pruning VLANs Enabled: 2-1001

Protected: false

Unknown unicast blocked: disabled Unknown multicast blocked: disabled

Appliance trust: none

Name: Po24

Switchport: Enabled

Administrative Mode: trunk Operational Mode: trunk

Administrative Trunking Encapsulation: dot1q Operational Trunking Encapsulation: dot1q

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

Trunking Native Mode VLAN: 1 (default)

Administrative Native VLAN tagging: enabled

Voice VLAN: none

Administrative private-vlan host-association: none

Administrative private-vlan mapping: none

Administrative private-vlan trunk native VLAN: none

Administrative private-vlan trunk Native VLAN tagging: enabled

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

Administrative private-vlan trunk mappings: none

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

Protected: false

Unknown unicast blocked: disabled Unknown multicast blocked: disabled

Appliance trust: none

DSW2#

DSW2#show interfaces trunk

Port	Mode	Encapsulation	Status	Native vlan
Po23	on	802.1q	trunking	1
Po24	on	802.1q	trunking	1
Port Po23	Vlans allowed on 10,200	trunk		

Po24	20,200
Port Po23 Po24	Vlans allowed and active in management domain 10,200 20,200
Port Po23 Po24 DSW2#	Vlans in spanning tree forwarding state and not pruned 10,200 20

DSW2#show vtp status

VTP Version : running VTP2
Configuration Revision : 0 Maximum VLANs supported locally : 1005

Number of existing VLANs : 8

VTP Operating Mode : Transparent

VTP Domain Name : netlearning

VTP Pruning Mode : Disabled

VTP V2 Mode : Enabled

VTP Traps Generation : Disabled

MD5 digest : 0x99 0xF7 0xCE 0x74 0x55 0xA6 0x6A 0xC7

Configuration last modified by 0.0.0.0 at 0-0-00 00:00:00

DSW2#show vtp password VTP Password: ciscol DSW2#

DSW2#show etherchannel detail Channel-group listing:

Group: 12 _____

Group state = L3

Ports: 3 Maxports = 8

Port-channels: 1 Max Port-channels = 1

Protocol:

Minimum Links: 0

Ports in the group:

Port: Fa0/22 _____

Port state = Up Mstr In-Bndl

Gcchange = -

Channel group = 12 Mode = On Port-channel = Po12 GC = -Pseudo port-channel =

Po12

Port index = 0Load = 0x00Protocol = -

Age of the port in the current state: 0d:00h:54m:25s

Port: Fa0/23 _____

Port state = Up Mstr In-Bndl

Channel group = 12 Mode = On Port-channel = Po12 GC = -Gcchange = -

Pseudo port-channel =

Po12

Port index = 0 Load = 0×00 Protocol = -

Age of the port in the current state: 0d:00h:54m:25s

Port: Fa0/24 _____

Port state = Up Mstr In-Bndl

Gcchange = -

Channel group = 12 Mode = On Port-channel = Po12 GC = -Port-channel = Po12 Pseudo port-channel =

Po12

Port index = 0Load = 0x00Protocol =

Age of the port in the current state: 0d:00h:54m:25s

Port-channels in the group: ______

Port-channel: Po12

Age of the Port-channel = 0d:01h:52m:18s

Logical slot/port = 1/0 Number of ports = 3 GC = 0×00000000 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:

			EC state	No of bits
0	00	Fa0/22		0
0	00	Fa0/23	On	0
0	00	Fa0/24	On	0

Time since last port bundled: 0d:00h:54m:26s Fa0/24 Time since last port Un-bundled: 0d:00h:54m:41s Fa0/24

Group: 23 _____

Group state = L2

Ports: 3 Maxports = 16

Port-channels: 1 Max Port-channels = 1

Protocol: LACP Minimum Links: 0

Ports in the group:

Port: Fa0/19 _____

Port state = Up Mstr Assoc In-Bndl

Mode = Active Channel group = 23Gcchange = -

Port-channel = Po23 GC = -Pseudo port-channel =

Port index = 0Load = 0x00Protocol = 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:

nocai ini		1 •	LACP port	Admin	Oper	Port
Port Port	Flags	State	Priority	Key	Key	Number
State Fa0/19	SA	bndl	32768	0x17	0x17	0x10
0x3D						

Partner's information:

		LACP port			Admin	Oper	Port
Port Port State	Flags	Priority	Dev ID	Age	key	Key	Number
Fa0/19 0x3D	SA	32768	0015.faac.46c0	7s	0x0	0x2	0x10

Age of the port in the current state: 0d:01h:52m:07s

Port: Fa0/20

Port state = Up Mstr Assoc In-Bndl

Channel group = 23 Mode = Active Port-channel = Po23 GC = -Gcchange = -

Pseudo port-channel =

Po23

Port index = 0Load = 0x00Protocol = LACP

Flags: S - Device is sending Slow LACPDUs F - Device is sending fast

LACPDUs.

A - Device is in active mode. P - Device is in passive

mode.

Local information:

			LACP port	Admin	Oper	Port
Port						
Port	Flags	State	Priority	Key	Key	Number
State						
Fa0/20	SA	bndl	32768	0x17	0x17	0x11
0×3D						

Partner's information:

		LACP port			Admin	Oper	Port
Port Port	Flags	Priority	Dev ID	Age	key	Key	Number
State Fa0/20 0x3D	SA	32768	0015.faac.46c0	28s	0x0	0x2	0x11

Age of the port in the current state: 0d:01h:52m:07s

Port: Fa0/21 _____

Port state = Up Mstr Assoc In-Bndl

Channel group = 23 Mode = Active Port-channel = Po23 GC = -Gcchange = -

Pseudo port-channel =

Port index = 0Load = 0x00Protocol = 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	0.7	111	20760	0 17	0 17	0 10
Fa0/21 0×3D	SA	bndl	32768	0x17	0x17	0x12

Partner's information:

		LACP port			Admin	Oper	Port
Port Port	Flags	Priority	Dev ID	Age	key	Key	Number
State Fa0/21 0x3D	SA	32768	0015.faac.46c0	16s	0x0	0x2	0x12

Age of the port in the current state: 0d:01h:52m:08s

Port-channels in the group:

Port-channel: Po23 (Primary Aggregator)

Age of the Port-channel = 0d:01h:52m:23s

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

HotStandBy port = null

= Port-channel Ag-Inuse Port state

 $\begin{array}{lll} {\tt Protocol} & = & {\tt LACP} \\ {\tt Port security} & = & {\tt Disabled} \end{array}$

Ports in the Port-channel:

	Load		EC state	No of bits
0	00	Fa0/19		0
0	00	Fa0/20	Active	0
0	00	Fa0/21	Active	0

Time since last port bundled: 0d:01h:52m:09s Fa0/21

Group: 24 _____

Group state = L2

Ports: 3 Maxports = 8

Port-channels: 1 Max Port-channels = 1

Protocol: PAqP Minimum Links: 0

> Ports in the group: _____

Port: Fa0/16 _____

Port state = Up Mstr In-Bndl

Po24

Port index = 0Load = 0x00Protocol = PAqP

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

state.

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

port.

d - PAqP is down.

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

running.

Local information:

				Hello	Partner	PAgP	Learning	
Group								
Port	Flags	State	Timers	Interval	Count	Priority	Method	
Ifindex								
Fa0/16	SC	U6/S7	Н	30s	1	128	Anv	32

Partner's information:

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

0015.fab8.2880 Fa0/19 8s SC Fa0/16 ASW2

10001

Age of the port in the current state: 0d:01h:52m:12s

Port: Fa0/17

Port state = Up Mstr In-Bndl

Po24

Port index = 0 Load = 0×00 Protocol = PAqP

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

state.

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

port.

d - PAgP is down.

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

running.

Local information:

Hello Partner PAgP Learning

Group

Port Flags State Timers Interval Count Priority Method

Ifindex

Fa0/17 SC U6/S7 H 30s 1 128 Any 32

Partner's information:

Partner Partner Partner Partner

Group

Port Device ID Port Age Flags Name

Cap.

Fa0/17 ASW2 0015.fab8.2880 Fa0/20 21s SC

10001

Age of the port in the current state: 0d:01h:52m:13s

Port: Fa0/18

Port state = Up Mstr In-Bndl

Channel group = 24 Mode = Desirable-Sl Gcchange = 0 Port-channel = Po24 GC = 0×00180001 Pseudo port-channel =

Po24

Port index = 0Load = 0x00Protocol = PAqP

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

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

port.

d - PAgP is down.

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

running.

Local information:

Hello Partner PAgP Learning Group Port Flags State Timers Interval Count Priority Method Ifindex Fa0/18 SC U6/S7 H 30s 1 128 Any 32

Partner's information:

Partner Partner Partner Partner Group Name Port Device ID Port Age Flags Cap. Fa0/18 ASW2 0015.fab8.2880 Fa0/21 10s SC 10001

Age of the port in the current state: 0d:01h:52m:14s

Port-channels in the group:

Port-channel: Po24

Age of the Port-channel = 0d:01h:52m:28s

Logical slot/port = 1/2 Number of ports = 3

GC = 0x00180001 HotStandBy port = null
Port state = Port-channel Ag-Inuse
Protocol = PAgP

Port security = Disabled

Ports in the Port-channel:

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

Time since last port bundled: 0d:01h:52m:16s Fa0/18

DSW2#

```
DSW2#show standby
Vlan10 - Group 10
State is Active
11 state changes, last state change 00:56:50
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 0.288 secs
Preemption disabled
Active router is local
Standby router is 10.2.1.1, priority 110 (expires in 8.548 sec)
Priority 20 (configured 20)
IP redundancy name is "hsrp-Vl10-10" (default)
DSW2#
```

DSW2#show standby brief

P indicates configured to preempt.

Interface Grp Prio P State Active Standby Virtual ΙP 10 20 Active local 10.2.1.1 V110 10.2.1.254

DSW2#

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

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

DSW2#show spanning-tree inconsistentports

Name Interface Inconsistency

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

DSW2#

DSW2#show spanning-tree summary Switch is in pvst mode

Root bridge for: VLAN0020

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

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

DSW2#show udld

Interface Fa0/1

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

Interface Fa0/2

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

Interface Fa0/3

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

Interface Fa0/4

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

Interface Fa0/5

Port enable administrative configuration setting: Disabled Port enable operational state: Disabled

Current bidirectional state: Unknown

Interface Fa0/6

Port enable administrative configuration setting: Disabled

Port enable operational state: Disabled Current bidirectional state: Unknown

Interface Fa0/7

Port enable administrative configuration setting: Disabled

Port enable operational state: Disabled Current bidirectional state: Unknown

Interface Fa0/8

Port enable administrative configuration setting: Disabled

Port enable operational state: Disabled Current bidirectional state: Unknown

Interface Fa0/9

Port enable administrative configuration setting: Disabled

Port enable operational state: Disabled Current bidirectional state: Unknown

Interface Fa0/10

Port enable administrative configuration setting: Disabled

Port enable operational state: Disabled Current bidirectional state: Unknown

Interface Fa0/11

Port enable administrative configuration setting: Disabled

Port enable operational state: Disabled Current bidirectional state: Unknown

Interface Fa0/12

Port enable administrative configuration setting: Disabled

Port enable operational state: Disabled Current bidirectional state: Unknown

Interface Fa0/13

Port enable administrative configuration setting: Disabled

Port enable operational state: Disabled Current bidirectional state: Unknown

Interface Fa0/14

Port enable administrative configuration setting: Disabled

Port enable operational state: Disabled Current bidirectional state: Unknown

Interface Fa0/15

Port enable administrative configuration setting: Disabled

Port enable operational state: Disabled Current bidirectional state: Unknown

Interface Fa0/16

Port enable administrative configuration setting: Disabled

Port enable operational state: Disabled Current bidirectional state: Unknown

Interface Fa0/17

__-

Port enable administrative configuration setting: Disabled

Port enable operational state: Disabled Current bidirectional state: Unknown

Interface Fa0/18

Port enable administrative configuration setting: Disabled

Port enable operational state: Disabled Current bidirectional state: Unknown

Interface Fa0/19

Port enable administrative configuration setting: Disabled

Port enable operational state: Disabled Current bidirectional state: Unknown

Interface Fa0/20

Port enable administrative configuration setting: Disabled

Port enable operational state: Disabled Current bidirectional state: Unknown

Interface Fa0/21

Port enable administrative configuration setting: Disabled

Port enable operational state: Disabled Current bidirectional state: Unknown

Interface Fa0/22

Port enable administrative configuration setting: Disabled

Port enable operational state: Disabled Current bidirectional state: Unknown

Interface Fa0/23

Port enable administrative configuration setting: Disabled

Port enable operational state: Disabled Current bidirectional state: Unknown

Interface Fa0/24

Port enable administrative configuration setting: Disabled

Port enable operational state: Disabled Current bidirectional state: Unknown

Interface Gi0/1

Port enable administrative configuration setting: Disabled

Port enable operational state: Disabled Current bidirectional state: Unknown

Interface Gi0/2

Port enable administrative configuration setting: Disabled

Port enable operational state: Disabled Current bidirectional state: Unknown

DSW2#show etherchannel summary

Flags: D - down P - bundled in port-channel

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

-	Port-channel		Ports			_
	_	1	1			
12	Po12(RU)	-	Fa0/22(P)	Fa0/23(P)	Fa0/24(P)	
23	Po23(SU)	LACP	Fa0/19(P)	Fa0/20(P)	Fa0/21(P)	
24	Po24(SU)	PAgP	Fa0/16(P)	Fa0/17(P)	Fa0/18(P)	

DSW2#show etherchannel protocol Channel-group listing:

Group: 12

Protocol: - (Mode ON)

Group: 23

Protocol: LACP

Group: 24

Protocol: PAgP

DSW2#show etherchannel port

Channel-group listing:

Group: 12 _____

Ports in the group:

Port: Fa0/22 _____

Port state = Up Mstr In-Bndl

Mode = On GC = -Channel group = 12 Gcchange = -

Port-channel = Po12 Pseudo port-channel =

Po12

Port index = 0Load = 0x00Protocol = -

Age of the port in the current state: 0d:00h:55m:55s

Port: Fa0/23 _____

Port state = Up Mstr In-Bndl

Gcchange = -

Channel group = 12 Mode = On Port-channel = Po12 GC = -Pseudo port-channel =

Po12

Port index = 0Load = 0x00Protocol = -

Age of the port in the current state: 0d:00h:55m:55s

Port: Fa0/24 _____

Port state = Up Mstr In-Bndl

Channel group = 12 Mode = On Port-channel = Po12 GC = -Gcchange = -

Pseudo port-channel =

Po12

Port index = 0 Load = 0×00 Protocol = -

Age of the port in the current state: 0d:00h:55m:56s

Group: 23 _____

> Ports in the group: -----

Port: Fa0/19 _____

Port state = Up Mstr Assoc In-Bndl

Gcchange = -

Pseudo port-channel =

Port index = 0Load = 0x00Protocol = 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:

nocai ini	Olmacion	•	LACP port	Admin	Oper	Port
Port			-		-	
Port	Flags	State	Priority	Key	Key	Number
State	0.7	la .a al 1	20760	017	017	010
Fa0/19 0x3D	SA	bndl	32768	0x17	0x17	0x10

Partner's information:

		LACP port			Admin	Oper	Port
Port Port	Flags	Priority	Dev ID	Age	key	Key	Number
State Fa0/19 0x3D	SA	32768	0015.faac.46c0	17s	0x0	0x2	0x10

Age of the port in the current state: 0d:01h:53m:36s

Port: Fa0/20

Port state = Up Mstr Assoc In-Bndl

Gcchange = -

Port-channel = Po23 Pseudo port-channel =

Po23

Port index = 0Load = 0×00 Protocol = LACP

Flags: S - Device is sending Slow LACPDUs F - Device is sending fast

LACPDUs.

A - Device is in active mode. P - Device is in passive

mode.

Local information:

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

Partner's information:

		LACP port			Admin	Oper	Port
Port Port	Flags	Priority	Dev ID	Age	key	Key	Number
State Fa0/20 0x3D	SA	32768	0015.faac.46c0	4s	0x0	0x2	0x11

Age of the port in the current state: 0d:01h:53m:36s

Port: Fa0/21 _____

Port state = Up Mstr Assoc In-Bndl

Gcchange = -Channel group = 23 Mode = Active Port-channel = Po23 GC = -

Pseudo port-channel =

Port index = 0Load = 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	Kev	Kev	Number
State	riays	State	FITOLICY	кеу	кеу	Number
Fa0/21 0×3D	SA	bndl	32768	0x17	0x17	0x12

Partner's information:

		LACP port			Admin	Oper	Port
Port Port	Flags	Priority	Dev ID	Age	key	Key	Number
State Fa0/21 0x3D	SA	32768	0015.faac.46c0	20s	0x0	0x2	0x12

Age of the port in the current state: 0d:01h:53m:37s

Group: 24 _____

> Ports in the group: _____

Port: Fa0/16 _____

Port state = Up Mstr In-Bndl

Channel group = 24 Mode = Desirable-Sl Gcchange = 0

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

Po24

Port index = 0Load = 0x00Protocol = PAqP

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

state.

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

port.

d - PAqP is down.

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

running.

Local information:

Hello Partner PAgP Learning Group Flags State Timers Interval Count Priority Method Port Ifindex Fa0/16 SC U6/S7 H 30s 1 128 Any 32

Partner's information:

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

Age of the port in the current state: 0d:01h:53m:40s

Port: Fa0/17 _____

Port state = Up Mstr In-Bndl

Channel group = 24 Mode = Desirable-Sl Gcchange = 0 Port-channel = Po24 GC = 0x00180001 Pseudo port-c Pseudo port-channel =

Po24

Load = 0x00Port index = 0Protocol = PAgP

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

state.

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

port.

d - PAgP is down.

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

running.

Local information:

Hello Partner PAgP Learning

Group

Port. Flags State Timers Interval Count Priority Method

Ifindex

Fa0/17	SC	U6/S7	Н	30s	1	128	Any	32
--------	----	-------	---	-----	---	-----	-----	----

Partner's information:

Partner Partner Partner Partner Group Port Name Device ID Port Age Flags Cap. Fa0/17 ASW2 0015.fab8.2880 Fa0/20 24s SC 10001

Age of the port in the current state: 0d:01h:53m:41s

Port: Fa0/18

Port state = Up Mstr In-Bndl

Channel group = 24

Channel group = 24 Mode = Desirable-Sl Gcchange = 0 Port-channel = Po24 GC = 0×00180001 Pseudo port-channel =

Po24

Port index = 0Load = 0x00Protocol = PAqP

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

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

port.

d - PAgP is down.

 $\begin{array}{lll} \mbox{H - Hello timer is running.} & \mbox{Q - Quit timer is running.} \\ \mbox{S - Switching timer is running.} & \mbox{I - Interface timer is} \end{array}$ Timers: H - Hello timer is running.

running.

Local information:

Hello Partner PAgP Learning Group Port Flags State Timers Interval Count Priority Method Ifindex Fa0/18 SC U6/S7 H 30s 1 128 Any 32

Partner's information:

Partner Partner Partner Partner Group Port Name Device ID Port Age Flags Cap. Fa0/18 ASW2 0015.fab8.2880 Fa0/21 16s SC 10001

Age of the port in the current state: 0d:01h:53m:43s

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

EtherChannel Load-Balancing Addresses Used Per-Protocol:

Non-IP: Source MAC address
IPv4: Source MAC address

DSW2#show etherchannel port-channel

Channel-group listing: ______

Group: 12 _____

Port-channels in the group:

Port-channel: Po12

Age of the Port-channel = 0d:01h:54m:09s

Logical slot/port = 1/0 Number of ports = 3 GC = 0×00000000 HotStandBy port = null

Passive port list = Fa0/22 Fa0/23 Fa0/24

Port state = Port-channel L3-Ag Ag-Inuse Protocol = -

Protocol

Port security = Disabled

Ports in the Port-channel:

			EC state	No of bits
	00	Fa0/22		0
0	00	Fa0/23	On	0
0	00	Fa0/24	On	0

Time since last port bundled: 0d:00h:56m:17s Fa0/24 Time since last port Un-bundled: 0d:00h:56m:32s Fa0/24

Group: 23

Port-channels in the group: _____

Port-channel: Po23 (Primary Aggregator)

Age of the Port-channel = 0d:01h:54m:10s

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:

			EC state	No of bits
0	00		Active	0
0	00	Fa0/20	Active	0
0	00	Fa0/21	Active	0

Time since last port bundled: 0d:01h:53m:56s Fa0/21

Group: 24 _____

Port-channels in the group:

Port-channel: Po24

Age of the Port-channel = 0d:01h:54m:11s

Logical slot/port = 1/2 Number of ports = 3
GC = 0x00180001 HotStandBy port = null
Port state = Port-channel Ag-Inuse
Protocol = PAgP

Port security = Disabled

Ports in the Port-channel:

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

Time since last port bundled: 0d:01h:53m:59s Fa0/18

DSW2#show pagp neighbor

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

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

Channel group 24 neighbors

	Partner	Partner	Partner	Partner
Group				
Port	Name	Device ID	Port	Age Flags
Cap.				
Fa0/16	ASW2	0015.fab8.2880	Fa0/19	13s SC
10001				
Fa0/17	ASW2	0015.fab8.2880	Fa0/20	23s SC
10001				
Fa0/18	ASW2	0015.fab8.2880	Fa0/21	14s SC
10001				
DSW2#				

DSW2#show lacp neighbor

Flags: S - Device is requesting Slow LACPDUs
F - Device is requesting Fast LACPDUs

A - Device is in Active mode P - Device is in Passive mode

Channel group 23 neighbors

Partner's information:

	LACP port				Admin	Oper	Port
Port Port State	Flags	Priority	Dev ID	Age	key	Key	Number
Fa0/19 0x3D	SA	32768	0015.faac.46c0	0s	0x0	0x2	0x10
Fa0/20 0x3D	SA	32768	0015.faac.46c0	16s	0x0	0x2	0x11
Fa0/21 0x3D DSW2#	SA	32768	0015.faac.46c0	2s	0x0	0x2	0x12

DSW2#show port-security										
Secure Action		MaxSecureAddr	CurrentAddr	SecurityViolation	Security					
		(Count)	(Count)	(Count)						
$T \cap + 1$	7 44 200	sos in System /	lovaludina ono	mag nor nortl	. 0					

Total Addresses in System (excluding one mac per port) : 0
Max Addresses limit in System (excluding one mac per port) : 5120
DSW2#

DSW2#show port-security address
Secure Mac Address Table

Vlan Mac Address Type Ports Remaining Age (mins)

Total Addresses in System (excluding one mac per port) : 0 Max Addresses limit in System (excluding one mac per port) : 5120 DSW2#

DSW2#show ntp status Clock is synchronized, stratum 6, reference is 10.1.1.1 nominal freq is 250.0000 Hz, actual freq is 249.9999 Hz, precision is 2**18 reference time is CFB0E75E.5291E20D (14:21:18.322 UTC Wed Jun 2 2010) clock offset is 0.9567 msec, root delay is 154.80 msec root dispersion is 1.92 msec, peer dispersion is 0.61 msec DSW2# DSW2#

DSW2#show ntp associations

```
address ref clock st when poll reach delay offset disp *~10.1.1.1 127.127.1.1 5 14 64 377 154.8 0.96 0.6 * master (synced), # master (unsynced), + selected, - candidate, ~ configured DSW2# DSW2#
```