

show vlan brief on office switch

The image displays the Cisco Packet Tracer interface. On the left, a network diagram shows a central '2911 office Switch' connected to an 'Office Router' (2911). The switch is connected to several PCs: 'Admin PC1', 'Admin PC2', 'HR PC1', 'HR PC2', 'IT PC1', and 'IT PC2'. The interface includes a menu bar (File, Edit, Options, View, Tools, Extensions, Window, Help) and a toolbar. The main workspace is divided into 'Logical' and 'Physical' views. The 'Physical' view shows the network topology. The 'Logical' view shows the configuration of the devices. The 'office Switch' window is open, showing the CLI interface. The terminal output displays the command 'show vlan brief' and its results.

Switch con0 is now available.

Press RETURN to get started.

Switch>en
Switch#show vlan brief

VLAN Name	Status	Ports
1 default	active	Fa0/7, Fa0/8, Fa0/9, Fa0/10 Fa0/11, Fa0/12, Fa0/13, Fa0/14 Fa0/15, Fa0/16, Fa0/17, Fa0/18 Fa0/19, Fa0/20, Fa0/21, Fa0/22 Fa0/23, Gig0/1, Gig0/2
10 ADMIN	active	Fa0/1, Fa0/2
20 HR	active	Fa0/3, Fa0/4
30 IT	active	Fa0/5, Fa0/6
1002 fddi-default	active	
1003 token-ring-default	active	
1004 fddinet-default	active	
1005 trnet-default	active	

Switch#

Copy Paste

Top

Time: 02:12:21

78°F Partly sunny

Search

ENG US

7:45 AM 2/10/2026

show ip route on office router

The image displays a Cisco Packet Tracer network simulation. On the left, a network diagram shows a central 2911 Office Router connected to a 2911 ISP Router. The Office Router is also connected to a 2961-NTT office Switch, which in turn connects to several PCs: Admin PC1, Admin PC2, HR PC1, HR PC2, IT PC1, and IT PC2. A Server-PT (ISP Server) is connected to the ISP Router. The right pane shows the CLI of the Office Router with the following commands and output:

```
Router(config-if)#exit
Router(config)#
Router(config)#
Router(config)#exit
Router#
$SYS-6-CONFIG_I: Configured from console by console

Router#show ip interface brief
Interface      IP-Address      OK? Method Status      Protocol
GigabitEthernet0/0    unassigned      YES unset  up          up
GigabitEthernet0/0.10 192.168.50.1    YES manual up          up
GigabitEthernet0/0.20 192.168.50.33   YES manual up          up
GigabitEthernet0/0.30 192.168.50.65   YES manual up          up
GigabitEthernet0/1    200.0.0.2       YES manual up          up
GigabitEthernet0/2    unassigned      YES unset  administratively down down
Vlan1          unassigned      YES unset  administratively down down

Router#show ip route
Codes: L - local, 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, E - EGP
       i - IS-IS, 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 200.0.0.1 to network 0.0.0.0

    192.168.50.0/24 is variably subnetted, 6 subnets, 2 masks
C       192.168.50.0/27 is directly connected, GigabitEthernet0/0.10
L       192.168.50.1/32 is directly connected, GigabitEthernet0/0.10
C       192.168.50.32/27 is directly connected, GigabitEthernet0/0.20
L       192.168.50.33/32 is directly connected, GigabitEthernet0/0.20
C       192.168.50.64/27 is directly connected, GigabitEthernet0/0.30
L       192.168.50.65/32 is directly connected, GigabitEthernet0/0.30
L       200.0.0.0/24 is variably subnetted, 2 subnets, 2 masks
C       200.0.0.0/30 is directly connected, GigabitEthernet0/1
L       200.0.0.2/32 is directly connected, GigabitEthernet0/1
S*     0.0.0.0/0 [1/0] via 200.0.0.1

Router#
```

The bottom of the image shows a Windows taskbar with the date 2/10/2026 and time 7:47 AM.

Show ip dhcp binding

The image displays a Cisco Packet Tracer network diagram and the CLI output of the 'Office Router'.

Network Diagram:

- Central Device:** 2911 Office Router.
- Left Side:** A 2951T-TT office switch connected to the Office Router. This switch is connected to six PCs: PC-PT Admin PC1, PC-PT Admin PC2, PC-PT HR PC1, PC-PT HR PC2, PC-PT IT PC1, and PC-PT IT PC2.
- Right Side:** A 2911 ISP Router connected to the Office Router. This router is connected to a Server-PT ISP Server.

Office Router CLI Output:

```
Router#show ip dhcp binding
```

IP address	Client-ID/ Hardware address	Lease expiration	Type
192.168.50.2	0090.2BA9.1DA6	--	Automatic
192.168.50.3	0060.3ED7.43A6	--	Automatic
192.168.50.34	0010.113C.91DC	--	Automatic
192.168.50.36	00D0.9761.CD9E	--	Automatic
192.168.50.66	00D0.0CB9.86D8	--	Automatic
192.168.50.67	00D0.D361.5623	--	Automatic

Router#

show ip nat translations

The screenshot displays a network simulation environment. On the left, a web browser window shows a document titled "Step 8: Test & Verify" with a list of tasks:

- From each VLAN PC:
 - Ping another PC in a different VLAN (e.g., 192.168.50.10 to 192.168.50.20)
 - Ping R1 interfaces and the ISP router 209.165.200.10.
- On S1, run: `show vlan brief` and `show ip nat translations`
- On R1, run:
 - `show ip interface brief`
 - `show ip route`
 - `show ip dhcp binding`
 - `show ip nat translations`

The main window shows the "Office Router" CLI interface. The configuration includes:

```
Router(config)# ip nat inside source list 1 interface GigabitEthernet0/1 overload
Router(config)# ip route 0.0.0.0 0.0.0.0 200.0.0.1
```

The output of the `show ip nat translations` command is as follows:

IP address	Client-ID/	Hardware address	Lease expiration	Type
192.168.50.2	0090.2BA9.1DAA	--	--	Automatic
192.168.50.3	0060.3ED7.43A6	--	--	Automatic
192.168.50.34	0010.113C.91DC	--	--	Automatic
192.168.50.35	00D0.9761.CD3E	--	--	Automatic
192.168.50.66	00D0.0CB9.85D8	--	--	Automatic
192.168.50.67	00D0.D361.5623	--	--	Automatic

The bottom of the screen shows a Windows taskbar with the date and time: 7:56 AM, 2/10/2026.

show ip nat translations was unsuccessful

Short note

I built a multi-department network using VLANs for segmentation and Router-on-a-Stick to enable inter-VLAN communication. I automated host addressing by configuring DHCP pools and implemented NAT Overload (PAT) to provide shared internet access through a single public IP. This can be verified by pinging the server.