**NAT**

**Part 1: Build the Network**

* + 1. Create a local user named **webuser** with an encrypted password of **webpass**.

ISP(config)# **username webuser privilege 15 secret webpass**

* + 1. Enable the HTTP server service on ISP.

ISP(config)# **ip http server**

* + 1. Configure the HTTP service to use the local user database.

ISP(config)# **ip http authentication local**

* + 1. Create a static route from the ISP router to the Gateway router using the assigned public network address range 209.165.200.224/27.

ISP(config)# **ip route 209.165.200.224 255.255.255.224 209.165.201.18**

* + 1. Create a default route from the Gateway router to the ISP router.

Gateway(config)# **ip route 0.0.0.0 0.0.0.0 209.165.201.17**

**Part 2: Configure and Verify Static NAT**

1. **Configure a static mapping**

A static map is configured to tell the router to translate between the private inside server address 192.168.1.20 and the public address 209.165.200.225. This allows a user from the Internet to access PC-A. PC-A is simulating a server or device with a constant address that can be accessed from the Internet.

Gateway(config)# **ip nat inside source static 192.168.1.20 209.165.200.225**

1. **Specify the interfaces**

Gateway(config)# **interface g0/1**

Gateway(config-if)# **ip nat inside**

Gateway(config-if)# **interface s0/0/1**

Gateway(config-if)# **ip nat outside**

1. **Test the configuration**

Gateway# **show ip nat translations**

Gateway# **show ip nat statistics**

**Part 3: Configure and Verify Dynamic NAT**

1. **Clear NATs**

Gateway# **clear ip nat translation \***

Gateway# **clear ip nat statistics**

1. **Define an access control list (ACL) that matches the LAN private IP address range**

ACL 1 is used to allow 192.168.1.0/24 network to be translated.

Gateway(config)# **access-list 1 permit 192.168.1.0 0.0.0.255**

1. **Verify that the NAT interface configurations are still valid.**

Gateway# **show ip nat statistics**

1. **Define the pool of usable public IP addresses.**

Gateway(config)# **ip nat pool public\_access 209.165.200.242 209.165.200.254 netmask 255.255.255.224**

1. **Define the NAT from the inside source list to the outside pool**

Gateway(config)# **ip nat inside source list 1 pool public\_access**

1. **Test the configuration**

Gateway# **show ip nat translations**

Gateway# **show ip nat statistics**

1. **Remove the static NAT entry**

Gateway(config)# **no ip nat inside source static 192.168.1.20 209.165.200.225**

Static entry in use, do you want to delete child entries? [no]: **yes**