Final Project Documentation Package

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Subnetting Scheme

Subnetting Scheme

Original Network address:

172.16.1.0/24

LANs		Network	Subnet Mask	
Tampa		172.16.1.192	255.255.255.240	
Atlanta		172.16.1.0	255.255.255.128	
Boston	LAN 1	172.16.1.128	255.255.255.224	
	LAN 2	172.16.1.160	255.255.255.224	

WANs	Network	Subnet Mask
Tampa-to-Atlanta	172.16.1.208	255.255.255.252
Atlanta-to-Boston	172.16.1.212	255.255.255.252

Device	Interface	IP Address	Subnet Mask	Default Gateway
Tampa-RT	S0/0/0	172.16.1.209	/30	n/a
	G0/0	172.16.1.193	/28	n/a
Atlanta-RT	S0/0/0	172.16.1.213	/30	n/a
	S0/0/1	172.16.1.210	/30	n/a
	G0/0	172.16.1.1	/25	n/a
Boston-RT	S0/0/1	172.16.1.214	/30	n/a
	G0/0	172.16.1.129	/27	n/a
	G0/1	172.16.1.161	/27	n/a
S1(Tampa)	VLAN 1	172.16.1.195	/28	n/a
S2(Atlanta)	VLAN 1	172.16.1.3	/25	n/a
S3(Boston)	VLAN 1	172.16.1.131	/27	n/a
S4(Boston)	VLAN 1	172.16.1.163	/27	n/a
Tampa Host	F0/0	172.16.1.194	/28	172.16.1.193
Atlanta Host	F0/0	172.16.1.2	/25	172.16.1.1
Boston Host 1	F0/0	172.16.1.130	/27	172.16.1.129
Boston Host 2	F0/0	172.16.1.162	/27	172.16.1.161

Tampa Router Configuration

Current configuration: 989 bytes

version 15.1

no service timestamps log datetime msec no service timestamps debug datetime msec

service password-encryption

hostname Tampa enable secret 5

\$1\$mERr\$9cTjUIEqNGurQiFU.ZeCi1

no ip cef no ipv6 cef

license udi pid CISCO1941/K9 sn FTX15245M5Y

spanning-tree mode pvst interface GigabitEthernet0/0

ip address 172.16.1.193 255.255.255.240

duplex auto speed auto

interface GigabitEthernet0/1

no ip address duplex auto speed auto shutdown

interface Serial0/0/0

ip address 172.16.1.209 255.255.255.252

clock rate 128000 interface Serial0/0/1 no ip address clock rate 64000 interface Vlan1 no ip address shutdown router rip version 2

network 172.16.0.0

ip classless

ip flow-export version 9

banner motd ^CUnauthorized access is strictly

prohibited!^C line con 0

password 7 0822455D0A16

login line aux 0 line vty 0

password 7 08235A5A000D

login line vty 1 4 login

Atlanta Router Configuration

Current configuration: 997 bytes

version 15.1

no service timestamps log datetime msec no service timestamps debug datetime msec

service password-encryption

hostname Atlanta enable secret 5

\$1\$mERr\$9cTjUIEqNGurQiFU.ZeCi1

no ip cef no ipv6 cef

license udi pid CISCO1941/K9 sn FTX1524813N

spanning-tree mode pvst interface GigabitEthernet0/0

ip address 172.16.1.1 255.255.255.128

duplex auto speed auto

interface GigabitEthernet0/1

no ip address duplex auto speed auto shutdown

interface Serial0/0/0

ip address 172.16.1.213 255.255.255.252

clock rate 128000 interface Serial0/0/1

ip address 172.16.1.210 255.255.255.252

interface Vlan1 no ip address shutdown router rip version 2

network 172.16.0.0

ip classless

ip flow-export version 9

banner motd ^CUnauthorized access is strictly

prohibited!^C line con 0

password 7 0822455D0A16

login line aux 0 line vty 0

password 7 08235A5A000D

login line vty 1 4 login

Boston Router Configuration

Current configuration: 997 bytes

version 15.1

no service timestamps log datetime msec no service timestamps debug datetime msec

service password-encryption

hostname Boston enable secret 5

\$1\$mERr\$9cTjUIEqNGurQiFU.ZeCi1

no ip cef no ipv6 cef

license udi pid CISCO1941/K9 sn FTX15246NIR

spanning-tree mode pvst interface GigabitEthernet0/0

ip address 172.16.1.129 255.255.255.224

duplex auto speed auto

interface GigabitEthernet0/1

ip address 172.16.1.161 255.255.255.224

duplex auto speed auto

interface Serial0/0/0 no ip address clock rate 64000 shutdown

interface Serial0/0/1

ip address 172.16.1.214 255.255.255.252

interface Vlan1 no ip address shutdown router rip version 2

network 172.16.0.0

ip classless

ip flow-export version 9

banner motd ^CUnauthorized access is strictly

prohibited!^C line con 0

password 7 0822455D0A16

login line aux 0 line vty 0

password 7 08235A5A000D

login line vty 1 4 login

Typical Switch Configuration

Current configuration: 1209 bytes

version 12.2

no service timestamps log datetime msec no service timestamps debug datetime msec

service password-encryption

hostname S1 enable secret 5

\$1\$mERr\$9cTjUIEqNGurQiFU.ZeCi1

spanning-tree mode pvst spanning-tree extend system-id interface FastEthernet0/1 interface FastEthernet0/2 interface FastEthernet0/3 interface FastEthernet0/4 interface FastEthernet0/5

interface FastEthernet0/4 interface FastEthernet0/5 interface FastEthernet0/6 interface FastEthernet0/7 interface FastEthernet0/8 interface FastEthernet0/9 interface FastEthernet0/10 interface FastEthernet0/11 interface FastEthernet0/12 interface FastEthernet0/13 interface FastEthernet0/14 interface FastEthernet0/14

interface FastEthernet0/16 interface FastEthernet0/17 interface FastEthernet0/18 interface FastEthernet0/19 interface FastEthernet0/20 interface FastEthernet0/21 interface FastEthernet0/22 interface FastEthernet0/23 interface FastEthernet0/24 interface GigabitEthernet0/1 interface GigabitEthernet0/2

interface Vlan1

ip address 172.16.1.195 255.255.255.240

line con 0

password 7 0822455D0A16

login line vty 0

password 7 08235A5A000D

login line vty 1 4 login line vty 5 15 login

Passwords:

Router:

Console: cisco

Telnet: cisco

Secret: class

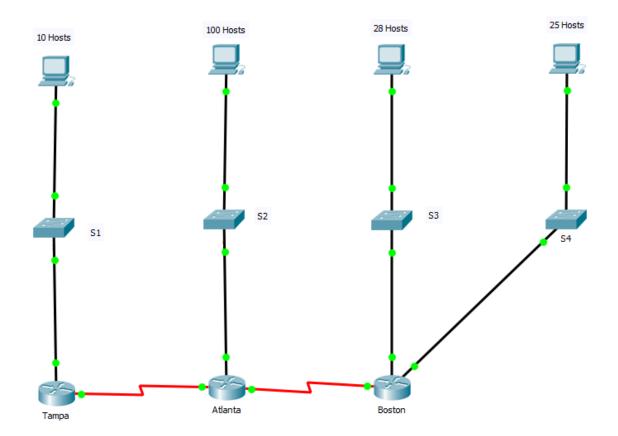
Switch:

Console: cisco

Telnet: cisco

Secret: class

Chris Hollenbeck Cisco Final project 5/17/18 rev E



Verification:

From the Tampa Host to the Atlanta Host:

```
C:\>ping 172.16.1.2 with 32 bytes of data:

Request timed out.

Reply from 172.16.1.2: bytes=32 time=1ms TTL=126

Reply from 172.16.1.2: bytes=32 time=2ms TTL=126

Reply from 172.16.1.2: bytes=32 time=1ms TTL=126

Ping statistics for 172.16.1.2:

Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),

Approximate round trip times in milli-seconds:

Minimum = 1ms, Maximum = 2ms, Average = 1ms

C:\>
```

From the Tampa Host to the Boston Host 1:

```
C:\>ping 172.16.1.130

Pinging 172.16.1.130 with 32 bytes of data:

Request timed out.
Reply from 172.16.1.130: bytes=32 time=3ms TTL=125
Reply from 172.16.1.130: bytes=32 time=4ms TTL=125
Reply from 172.16.1.130: bytes=32 time=2ms TTL=125

Ping statistics for 172.16.1.130:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
    Minimum = 2ms, Maximum = 4ms, Average = 3ms
C:\>
```

From the Tampa Host to the Boston Host 2:

```
C:\>ping 172.16.1.162

Pinging 172.16.1.162 with 32 bytes of data:

Request timed out.
Reply from 172.16.1.162: bytes=32 time=2ms TTL=125
Reply from 172.16.1.162: bytes=32 time=3ms TTL=125
Reply from 172.16.1.162: bytes=32 time=2ms TTL=125

Ping statistics for 172.16.1.162:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
    Minimum = 2ms, Maximum = 3ms, Average = 2ms

C:\>
```