21BDS0340

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Information Security Management

Assignment – IV

Question 1

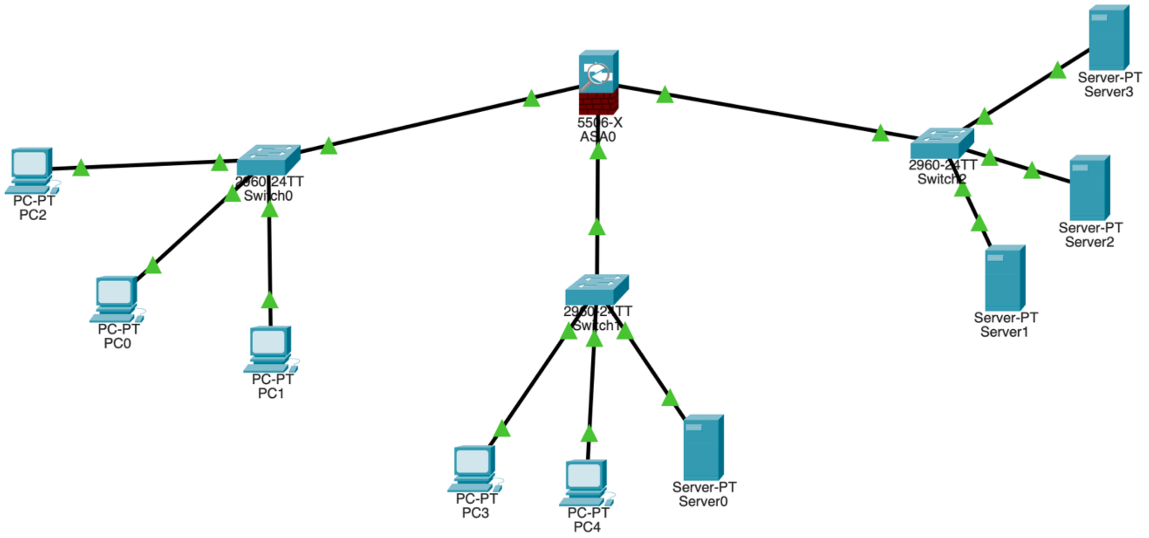
Aim

Configure the Cisco ASA Firewall

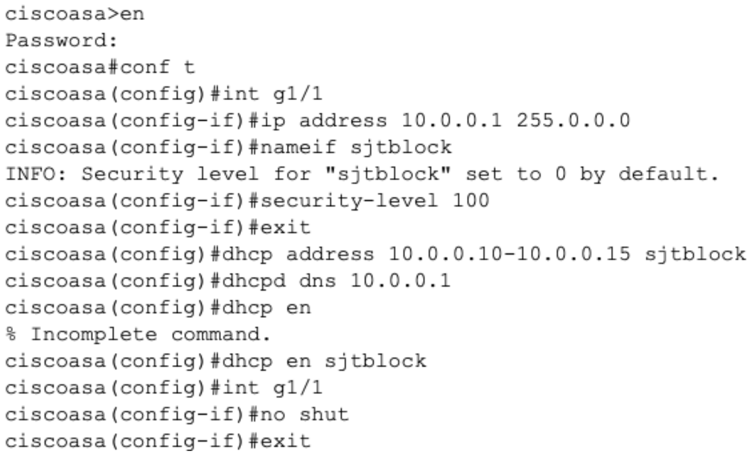
Procedure

1. Add configuration for network 10.0.0.0
2. Add DHCP configuration and apply if to interface gigabitEthernet0/0
3. Add SSH configuration

Screenshots

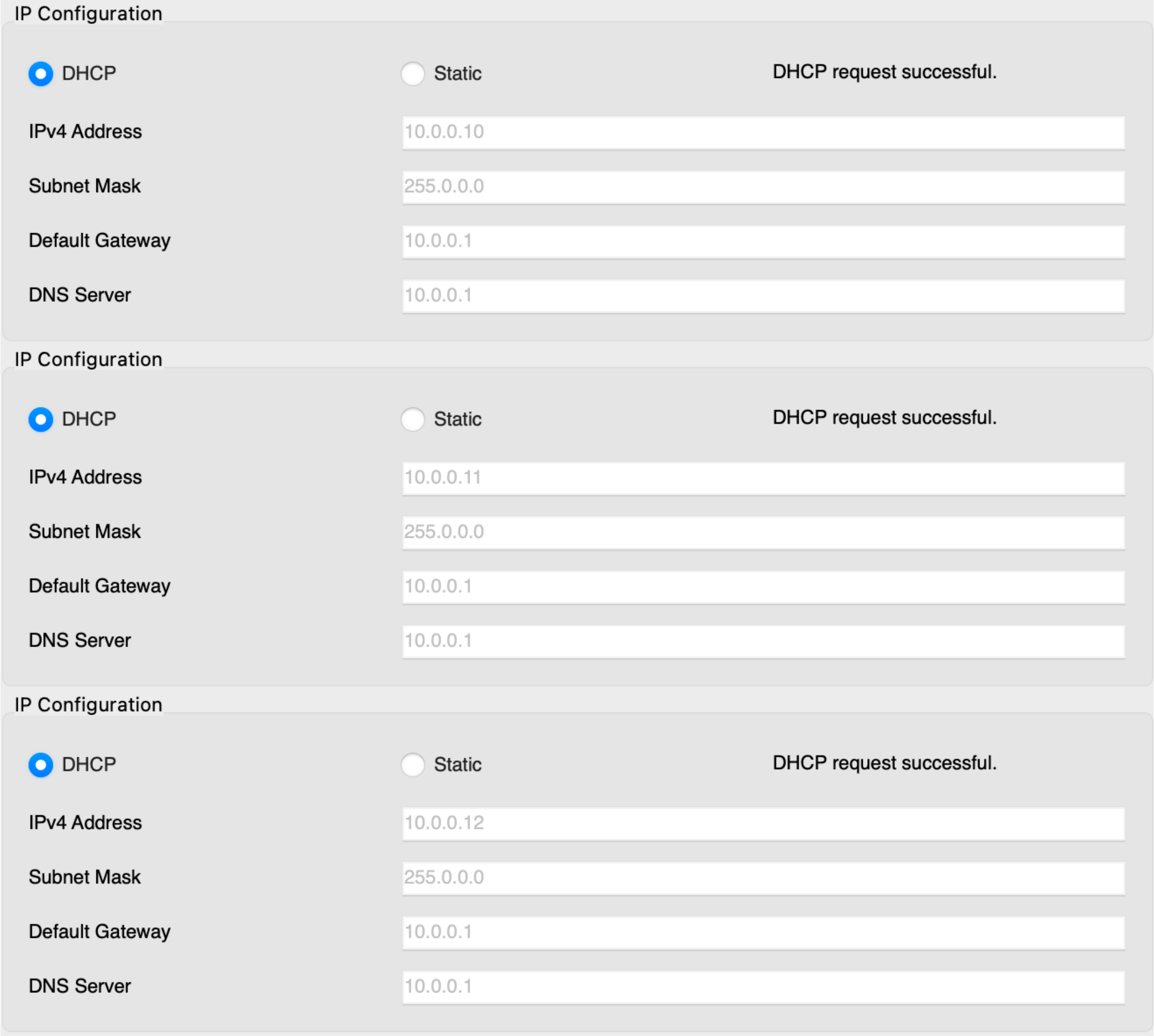


DHCP Configuration



```
ciscoasa>en
Password:
ciscoasa#conf t
ciscoasa(config)#int g1/1
ciscoasa(config-if)#ip address 10.0.0.1 255.0.0.0
ciscoasa(config-if)#nameif sjtblock
INFO: Security level for "sjtblock" set to 0 by default.
ciscoasa(config-if)#security-level 100
ciscoasa(config-if)#exit
ciscoasa(config)#dhcp address 10.0.0.10-10.0.0.15 sjtblock
ciscoasa(config)#dhcpd dns 10.0.0.1
ciscoasa(config)#dhcp en
% Incomplete command.
ciscoasa(config)#dhcp en sjtblock
ciscoasa(config)#int g1/1
ciscoasa(config-if)#no shut
ciscoasa(config-if)#exit
```

After DHCP Configuration



IP Configuration

● DHCP ○ Static DHCP request successful.

IPv4 Address 10.0.0.10

Subnet Mask 255.0.0.0

Default Gateway 10.0.0.1

DNS Server 10.0.0.1

IP Configuration

● DHCP ○ Static DHCP request successful.

IPv4 Address 10.0.0.11

Subnet Mask 255.0.0.0

Default Gateway 10.0.0.1

DNS Server 10.0.0.1

IP Configuration

● DHCP ○ Static DHCP request successful.

IPv4 Address 10.0.0.12

Subnet Mask 255.0.0.0

Default Gateway 10.0.0.1

DNS Server 10.0.0.1

SSH Configuration

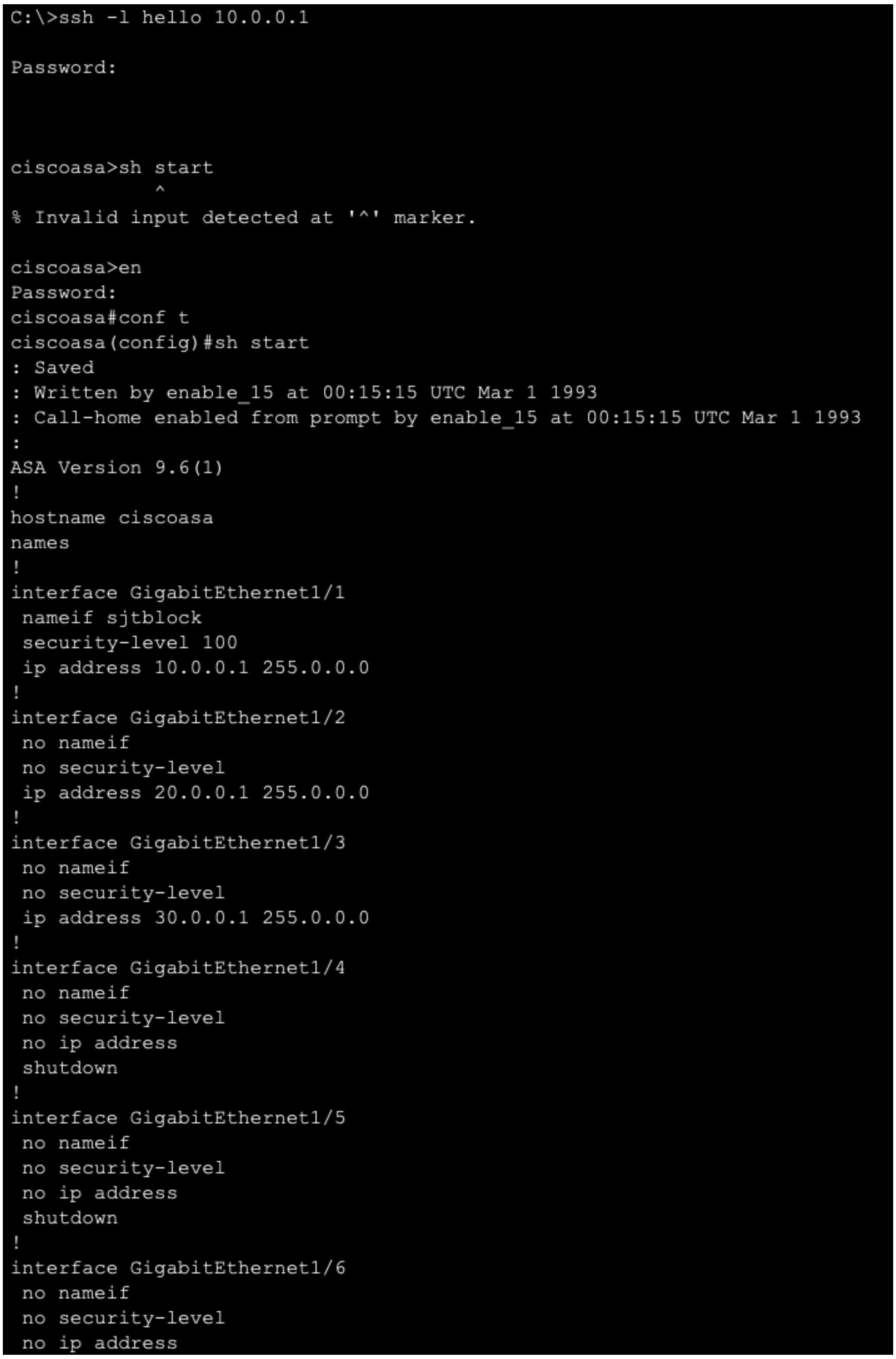
```
ciscoasa(config)#aaa authentication ssh console local
ciscoasa(config)#crypto key generate rsa module 1024
                                              ^
% Invalid input detected at '^' marker.

ciscoasa(config)#crypto key generate rsa modulus 1024
WARNING: You have a RSA keypair already defined named <Default-RSA-Key>.

Do you really want to replace them? [yes/no]: yes
Keypair generation process begin. Please wait...
ciscoasa(config)#ssh 10.0.0.10 255.255.255.0 sjtblock
WARNING: IP address <10.0.0.10> and netmask <255.255.255.0> inconsistent
ciscoasa(config)#ssh 10.0.0.10 255.0.0.0 sjtblock
WARNING: IP address <10.0.0.10> and netmask <255.0.0.0> inconsistent
ciscoasa(config)#ssh timeout 3
ciscoasa(config)#wr mem
Building configuration...
Cryptochecksum: 7def9218 7bfd1ee0 ffffffffdeb77e6b 3faf58d9

1319  bytes copied in 1.246 secs (1058 bytes/sec)
[OK]
```

Results

```
ciscoasa(config)#show start
: Saved
: Written by enable_15 at 00:15:15 UTC Mar 1 1993
: Call-home enabled from prompt by enable_15 at 00:15:15 UTC Mar 1 1993
:
ASA Version 9.6(1)
!
hostname ciscoasa
names
!
interface GigabitEthernet1/1
nameif sjtblock
security-level 100
ip address 10.0.0.1 255.0.0.0
!
interface GigabitEthernet1/2
no nameif
no security-level
ip address 20.0.0.1 255.0.0.0
!
interface GigabitEthernet1/3
no nameif
no security-level
ip address 30.0.0.1 255.0.0.0
!
interface GigabitEthernet1/4
no nameif
no security-level
no ip address
shutdown
!
interface GigabitEthernet1/5
no nameif
no security-level
no ip address
shutdown
!
interface GigabitEthernet1/6
no nameif
no security-level
no ip address
shutdown
!
interface GigabitEthernet1/7
no nameif
no security-level
no ip address
shutdown
!
```

```
interface GigabitEthernet1/8
no nameif
no security-level
no ip address
shutdown
!
interface Management1/1
management-only
no nameif
no security-level
no ip address
shutdown
!
!
!
!
!
aaa authentication ssh console LOCAL
!
!
class-map inspection_default
match default-inspection-traffic
!
policy-map type inspect dns preset_dns_map
parameters
message-length maximum 512
policy-map global_policy
class inspection_default
inspect dns preset_dns_map
inspect ftp
inspect tftp
!
service-policy global_policy global
!
telnet timeout 5
ssh 10.0.0.0 255.255.255.0 sjtblock
ssh 10.0.0.0 255.0.0.0 sjtblock
ssh timeout 3
!
dhcpd dns 10.0.0.1
!
dhcpd address 10.0.0.10-10.0.0.15 sjtblock
dhcpd enable sjtblock
!
!
!
!
```

SSH From PC1



```
C:\>ssh -l hello 10.0.0.1

Password:



ciscoasa>sh start
            ^
% Invalid input detected at '^' marker.

ciscoasa>en
Password:
ciscoasa#conf t
ciscoasa(config)#sh start
: Saved
: Written by enable_15 at 00:15:15 UTC Mar 1 1993
: Call-home enabled from prompt by enable_15 at 00:15:15 UTC Mar 1 1993
:
ASA Version 9.6(1)
!
hostname ciscoasa
names
!
interface GigabitEthernet1/1
 nameif sjtblock
 security-level 100
 ip address 10.0.0.1 255.0.0.0
!
interface GigabitEthernet1/2
 no nameif
 no security-level
 ip address 20.0.0.1 255.0.0.0
!
interface GigabitEthernet1/3
 no nameif
 no security-level
 ip address 30.0.0.1 255.0.0.0
!
interface GigabitEthernet1/4
 no nameif
 no security-level
 no ip address
 shutdown
!
interface GigabitEthernet1/5
 no nameif
 no security-level
 no ip address
 shutdown
!
interface GigabitEthernet1/6
 no nameif
 no security-level
 no ip address
```