



Smart Home

PREBARED BY

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- Configuration 2 routers

- Router 0

```
Router>enable
Router#
Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface GigabitEthernet0/0
Router(config-if)#ip address 192.168.1.1 255.255.255.0
Router(config-if)#no shutdown
Router(config)#interface GigabitEthernet0/0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface Serial0/0/0
Router(config-if)#ip address 10.1.1.1 255.255.255.0
Router(config-if)#no shutdown
Router(config-if)#
Router(config-if)#exit
Router(config)#ip route 192.168.0.0 255.255.255.0 10.1.1.1
Router(config)#exit
Router#
Router#copy running-config startup-config
Destination filename [startup-config]?
Building configuration...
[OK]
Router#reload
Proceed with reload? [confirm]
```



- Router 1

```
Router>enable
Router#
Router#configure terminal
Router(config)#interface GigabitEthernet0/1
Router(config-if)#ip address 10.1.1.1 255.255.255.0
Router(config-if)#no shutdown
Router(config-if)#exit
Router(config)#interface Serial0/0/1
Router(config-if)#ip address 10.1.1.2 255.255.255.0
Router(config-if)#exit
Router(config)#ip route 192.168.1.0 255.255.255.0 10.1.1.2
Router(config)#end
Router#copy running-config startup-config
Destination filename [startup-config]?
Building configuration...
[OK]
Router#reload
Proceed with reload? [confirm]
```

- Rename switch

- Switch 0

```
Switch>enable
Switch#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#hostname SW
SW(config)#end
SW#
SW#copy running-config startup-config
Destination filename [startup-config]?
Building configuration...
[OK]
SW#reload
Proceed with reload? [confirm]
```



- Configuration IP phone

- Router2:

```
Router>ena
```

```
Router#config t
```

```
Enter configuration commands, one per line. End with CNTL/Z.
```

```
Router(config)#int fas0/0
```

```
Router(config-if)#ip address 192.168.10.1 255.255.255.0
```

```
Router(config-if)#no shutdown
```

```
Router(config-if)#
```

```
%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up
```

```
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up
```

```
Router(config-if)#exit
```

```
Router(config)#ip dhcp pool phone
```

```
Router(dhcp-config)#network 192.168.10.0 255.255.255.0
```

```
Router(dhcp-config)#option 150 ip 192.168.10.1
```

```
Router(dhcp-config)#exit
```

```
Router(config)#telephony-service
```

```
Router(config-telephony)#max-dn 5
```

```
Router(config-telephony)#max-ephones 5
```

```
Router(config-telephony)#ip source-address 192.168.10.1 port 2000
```

```
Router(config-telephony)#auto assign 4 to 6
```

```
Router(config-telephony)#auto assign 1 to 5
```

```
Router(config-telephony)#exit
```

```
Router(config)#ephone-dn 1
```

```
Router(config-ephone-dn)%%LINK-3-UPDOWN: Interface ephone_dsp DN 1.1, changed state to up
```

```
Router(config-ephone-dn)#number 45001
```

```
Router(config-ephone-dn)#exit
```

```
Router(config)#ephone-dn 2
```

```
Router(config-ephone-dn)%%LINK-3-UPDOWN: Interface ephone_dsp DN 2.1, changed state to up
```

```
Router(config-ephone-dn)#number 45002
```

```
Router(config-ephone-dn)#exit
```

```
Router(config)#ephone-dn 3
```

```
Router(config-ephone-dn)%%LINK-3-UPDOWN: Interface ephone_dsp DN 3.1, changed state to up
```

```
Router(config-ephone-dn)#number 45003
```

Router(config-ephone-dn)#exit

Router(config)#%DHCPD-4-PING_CONFLICT: DHCP address conflict: server pinged 192.168.10.1.

%IPPHONE-6-REGISTER: ephone-1 IP:192.168.10.2 Socket:2 DeviceType:Phone has registered.

%IPPHONE-6-REGISTER: ephone-2 IP:192.168.10.3 Socket:2 DeviceType:Phone has registered.

%IPPHONE-6-REGISTER: ephone-3 IP:192.168.10.5 Socket:2 DeviceType:Phone has registered.

Router#

%SYS-5-CONFIG_I: Configured from console by console

- Switch1:

Switch>ena

Switch#config t

Enter configuration commands, one per line. End with CNTL/Z.

Switch(config)#interface range fa0/1-24

Switch(config-if-range)#switchport mode access

Switch(config-if-range)#switchport voice vlan 1

Switch(config-if-range)#exit

Switch(config)#exit

Switch#

- Configuration the router

• Router 3

Router>ena

Router#config t

Enter configuration commands, one per line. End with CNTL/Z.

Router(config)#int fas0/0

Router(config-if)#ip address 192.168.1.1 255.255.255.0

Router(config-if)#no shutdown

Router(config-if)#end

Router#copy running-config startup-config

Destination filename [startup-config]?

Building configuration...

[OK]

Router#reload



- **Ip addresses of the end devices:**

- **Server:**

Ipv4 Address: 192.168.4.2

Subnet Mask: 255.255.255.0

Default Gateway: 192.168.4.1

- **PC1:**

Ipv4 Address: 192.168.4.3

Subnet Mask: 255.255.255.0

Default Gateway: 192.168.4.1

- **PC2:**

Ipv4 Address: 192.168.4.4

Subnet Mask: 255.255.255.0

Default Gateway: 192.168.4.1

- **PC3:**

Ipv4 Address: 192.168.4.5

Subnet Mask: 255.255.255.0

Default Gateway: 192.168.4.1

- **PC4:**

Ipv4 Address: 192.168.4.6

Subnet Mask: 255.255.255.0

Default Gateway: 192.168.4.1

- **PC5:**

Ipv4 Address: 192.168.4.8

Subnet Mask: 255.255.255.0

Default Gateway: 192.168.4.1

- **Laptop1:**

Ipv4 Address: 192.168.4.9

Subnet Mask: 255.255.255.0

Default Gateway: 192.168.4.1

- **Laptop2:**

Ipv4 Address: 192.168.4.10

Subnet Mask: 255.255.255.0

Default Gateway: 192.168.4.1

- **Laptop3:**

Ipv4 Address: 192.168.4.12

Subnet Mask: 255.255.255.0

Default Gateway: 192.168.4.1

- Smart home devices:

• PC0:

Ipv4 Address: 192.168.1.3

Subnet Mask: 255.255.255.0

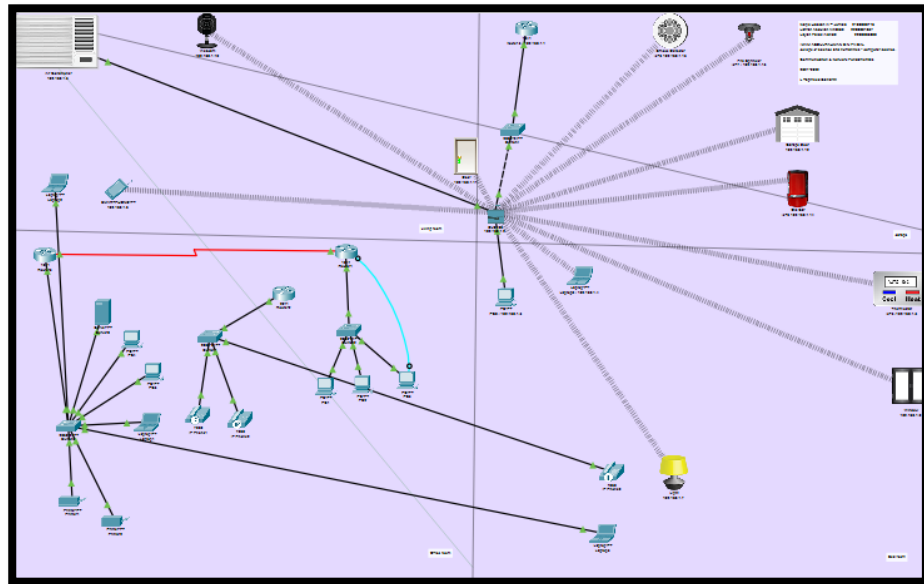
Default Gateway: 192.168.1.1

• Laptop0:

Ipv4 Address: 192.168.1.4

Subnet Mask: 255.255.255.0

Default Gateway: 192.168.1.1



- In PC0:

IoT Server Address: 192.168.25.1

Username: admin

Password: admin

YouTube Link:

<https://youtu.be/fKWFy16dCjA>

L.Taghreed Balharith

