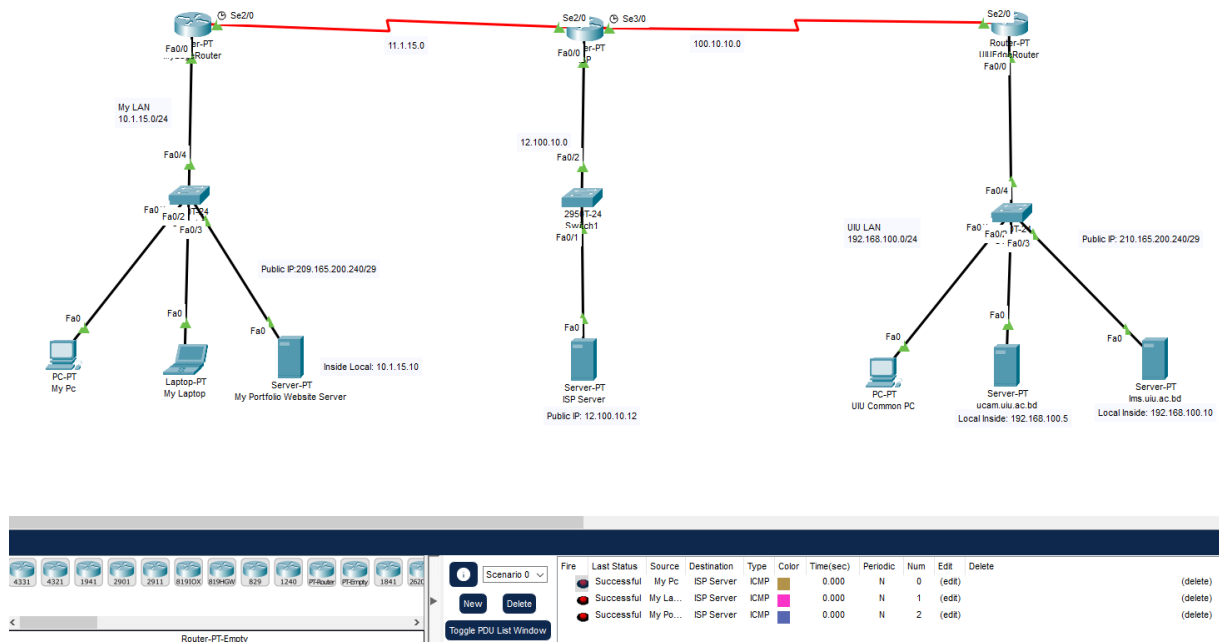# United International University
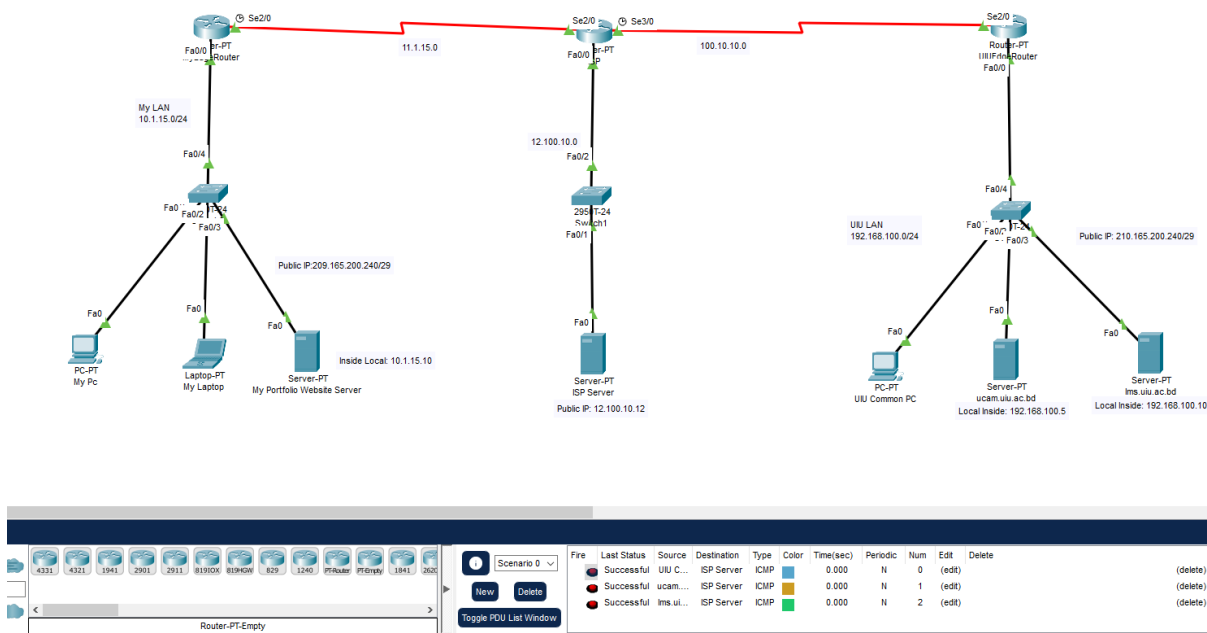## QUEST FOR EXCELLENCE

Project on Cisco Packet Tracer

Submitted to - **Azim Uddin Chowdhury** Project Coordinator & Instructor (CCAI), Cisco Networking Academy & CSE Department, United International University	Submitted by - Name: **Md. Shakhan** ID:**011201301** Section: D Course Code: CSE 324/CSE 3712

Network Diagram Design on PT

Ping UIU Network with ISP:

Code:
1. Hostname Change

MyEdgeRouter:
Router>en
Router#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#hostname MyEdgeRouter
MyEdgeRouter(config)#

ISP:
Router>en
Router#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#hostname ISP
ISP(config)#

UIUEdgeRouter:
Router>en
Router#conf t
Enter configuration commands, one per line. End with CNTL/Z.

Router(config)#hostname UIUEdgeRouter
UIUEdgeRouter(config)#

2. IP Configaration

MyEdgeRouter:
MyEdgeRouter(config)#
MyEdgeRouter(config)#int f0/0
MyEdgeRouter(config-if)#ip add
MyEdgeRouter(config-if)#ip address 10.1.15.1 255.255.255.0
MyEdgeRouter(config-if)#no sh
MyEdgeRouter(config-if)#no shutdown

MyEdgeRouter(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

MyEdgeRouter(config-if)#exit
MyEdgeRouter(config)#
MyEdgeRouter(config)#int se2/0

MyEdgeRouter(config-if)#ip add
MyEdgeRouter(config-if)#ip address 11.1.15.1 255.255.255.0
MyEdgeRouter(config-if)#no sh

%LINK-5-CHANGED: Interface Serial2/0, changed state to down
MyEdgeRouter(config-if)#exit

ISP:
ISP(config)#
ISP(config)#int f0/0
ISP(config-if)#ip add 12.100.10.10 255.255.255.0
ISP(config-if)#no sh

ISP(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

ISP(config-if)#exit
ISP(config)#

ISP(config)#
ISP(config)#int s2/0
ISP(config-if)#ip add 11.1.15.2 255.255.255.0
ISP(config-if)#no sh

ISP(config-if)#
%LINK-5-CHANGED: Interface Serial2/0, changed state to up

ISP(config-if)#exit
ISP(config)#

ISP(config)#
ISP(config)#int s3/0
ISP(config-if)#ip add 100.10.10.1 255.255.255.0
ISP(config-if)#no sh

%LINK-5-CHANGED: Interface Serial3/0, changed state to down
ISP(config-if)#exit

UIUEdgeRouter:
UIUEdgeRouter>en
UIUEdgeRouter#conf t
Enter configuration commands, one per line. End with CNTL/Z.
UIUEdgeRouter(config)#int f0/0
UIUEdgeRouter(config-if)#ip add 192.168.100.1 255.255.255.0
UIUEdgeRouter(config-if)#no sh

UIUEdgeRouter(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

UIUEdgeRouter(config-if)#exit
UIUEdgeRouter(config)#

UIUEdgeRouter(config)#int s2/0
UIUEdgeRouter(config-if)#ip add 100.10.10.2 255.255.255.0
UIUEdgeRouter(config-if)#no sh

UIUEdgeRouter(config-if)#
%LINK-5-CHANGED: Interface Serial2/0, changed state to up

UIUEdgeRouter(config-if)#e

%LINEPROTO-5-UPDOWN: Line protocol on Interface Serial2/0, changed state to up

% Ambiguous command: "e"
UIUEdgeRouter(config-if)#
UIUEdgeRouter(config-if)#exit
UIUEdgeRouter(config)#

3.DHCP Configure

MyEdgeRouter:
MyEdgeRouter>en
MyEdgeRouter#conf t
Enter configuration commands, one per line. End with CNTL/Z.
MyEdgeRouter(config)#ip dhcp pool MyEdgeRouterF0/0
MyEdgeRouter(dhcp-config)#network 10.1.15.0 255.255.255.0
MyEdgeRouter(dhcp-config)#default
MyEdgeRouter(dhcp-config)#default-router 10.1.15.1
MyEdgeRouter(dhcp-config)#dns
MyEdgeRouter(dhcp-config)#dns-server 8.8.8.8
MyEdgeRouter(dhcp-config)#exit
MyEdgeRouter(config)#ip dhcp ex
MyEdgeRouter(config)#ip dhcp excluded-address 10.1.15.1 10.1.15.20
MyEdgeRouter(config)#
MyEdgeRouter(config)#

UIUEdgeRouter:
UIUEdgeRouter>
UIUEdgeRouter>en
UIUEdgeRouter#conf t
Enter configuration commands, one per line. End with CNTL/Z.
UIUEdgeRouter(config)#ip dhcp pool UIUEdgeRouterF0/0
UIUEdgeRouter(dhcp-config)#network 192.168.100.0 255.255.255.0
UIUEdgeRouter(dhcp-config)#default-router 192.168.100.1
UIUEdgeRouter(dhcp-config)#dns-server 8.8.8.8
UIUEdgeRouter(dhcp-config)#exit
UIUEdgeRouter(config)#ip dhcp excluded-address 192.168.100.1 192.168.100.20
UIUEdgeRouter(config)#

4. Configure Routing Protocols
MyEdgeRouter:
MyEdgeRouter>en
MyEdgeRouter#conf t
Enter configuration commands, one per line. End with CNTL/Z.
MyEdgeRouter(config)#router rip
MyEdgeRouter(config-router)#net 10.1.15.0
MyEdgeRouter(config-router)#net 11.1.15.0
MyEdgeRouter(config-router)#exit
MyEdgeRouter(config)#ip route 0.0.0.0 0.0.0.0 11.1.15.2

MyEdgeRouter(config)#router rip
MyEdgeRouter(config-router)# default-information originate

UIUEdgeRouter:
UIUEdgeRouter>en
UIUEdgeRouter#conf t
Enter configuration commands, one per line. End with CNTL/Z.
UIUEdgeRouter(config)#router rip
UIUEdgeRouter(config-router)#net 100.10.10.0
UIUEdgeRouter(config-router)#net 192.168.10.0
UIUEdgeRouter(config-router)#
UIUEdgeRouter(config-router)#ex
UIUEdgeRouter(config)#ip route 0.0.0.0 0.0.0.0 100.10.10.1

UIUEdgeRouter(config)#router rip
UIUEdgeRouter(config-router)# default-information originate

ISP:
ISP>en
ISP#conf t
Enter configuration commands, one per line. End with CNTL/Z.

ISP(config)#ip route 209.165.200.240 255.255.255.248 11.1.15.1
ISP(config)#ip route 210.165.200.240 255.255.255.248 100.10.10.2

5. Configure NAT

MyEdgeRouter:
MyEdgeRouter(config)#
MyEdgeRouter(config)#
MyEdgeRouter(config)#

MyEdgeRouter(config)#ip nat inside source static 10.1.15.10 209.165.200.241
MyEdgeRouter(config)#access-list 1 permit 10.1.15.0 0.0.0.255
MyEdgeRouter(config)#ip nat pool NAT-POOL 209.165.200.242 209.165.200.244 netmask
255.255.255.248
MyEdgeRouter(config)#ip nat inside source list 1 pool NAT-POOL overload
MyEdgeRouter(config)#int s2/0
MyEdgeRouter(config-if)#ip nat outside
MyEdgeRouter(config-if)#exit
MyEdgeRouter(config)#int f0/0
MyEdgeRouter(config-if)#ip nat inside
MyEdgeRouter(config-if)#exit
MyEdgeRouter(config)#
MyEdgeRouter(config)#

UIUEdgeRouter:
UIUEdgeRouter(config)#
UIUEdgeRouter(config)#ip nat inside source static 192.168.100.5 210.165.200.241
UIUEdgeRouter(config)#ip nat inside source static 192.168.100.10 210.165.200.242
UIUEdgeRouter(config)#access-list 2 permit 192.168.100.0 0.0.0.255
UIUEdgeRouter(config)#ip nat pool NAT-POOL 210.165.200.243 210.165.200.244 netmask
255.255.255.248
UIUEdgeRouter(config)#ip nat inside source list 2 pool NAT-POOL overload
UIUEdgeRouter(config)#int s2/0
UIUEdgeRouter(config-if)#ip nat outside
UIUEdgeRouter(config-if)#exit
UIUEdgeRouter(config)#int f0/0
UIUEdgeRouter(config-if)#ip nat inside
UIUEdgeRouter(config-if)#exit
UIUEdgeRouter(config)#