

Cisco Packet Tracer - U:\saves\Final Project\OSPF.pkt

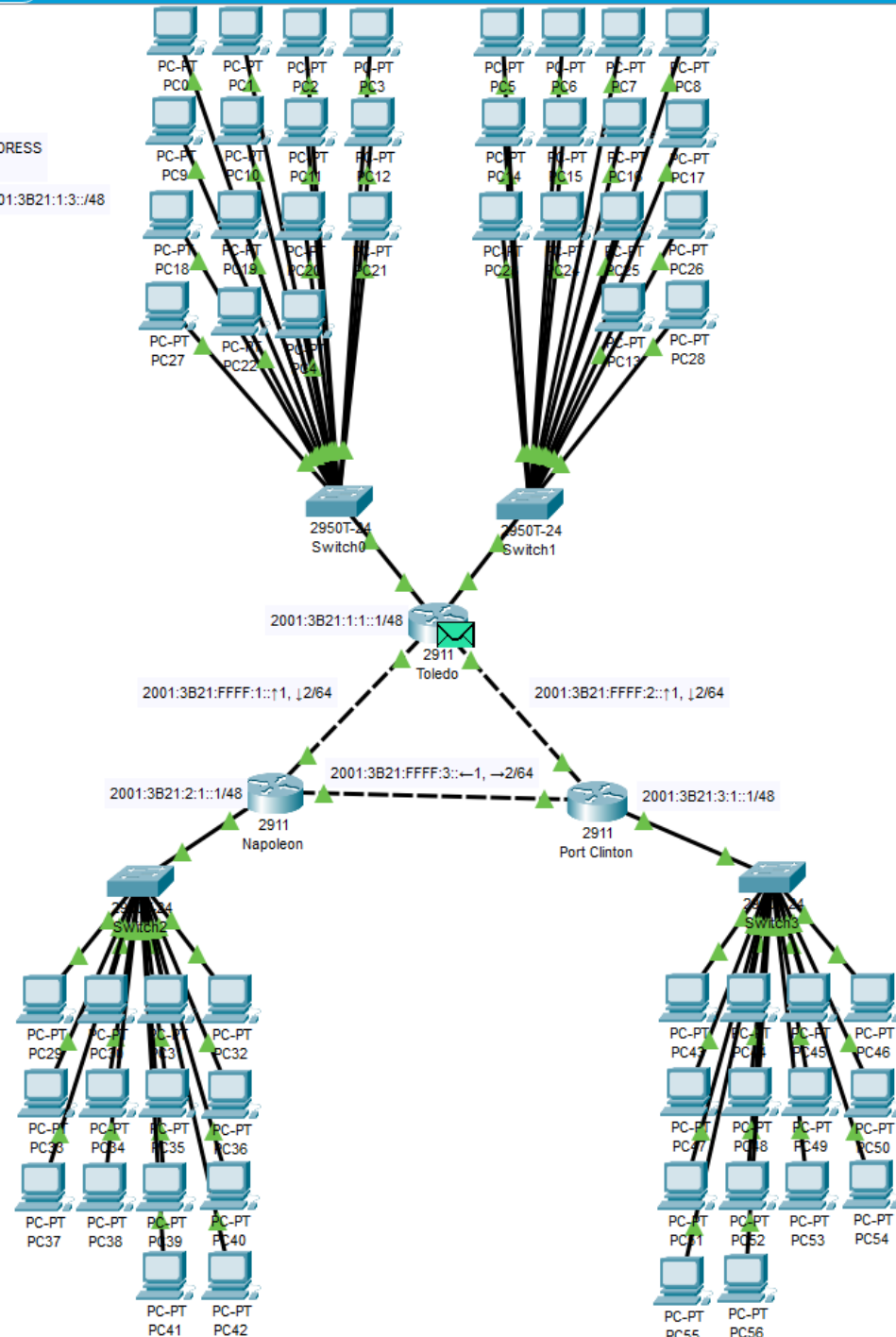
File Edit Options View Tools Extensions Help

File Edit Options View Tools Extensions Help

A toolbar containing icons for various drawing and editing functions: a selection tool (arrow), a magnifying glass (zoom), a delete tool (X), a crop tool (scissors), a list icon, a pencil, a rectangle, an oval, a cloud shape, an envelope with a plus sign, and a folder with a plus sign.

Logical Physical x: 898, y: 370

[Root]      16:28:30



Simulation Panel

Event List

Vis.	Time(sec)	Last Device	At Device	Type
	0.000	--	PC0	ICMPv6
	0.002	PC0	Switch0	ICMPv6
	0.004	Switch0	Toledo	ICMPv6
	0.005	Toledo	Napoleon	ICMPv6
	0.008	Napoleon	Switch2	ICMPv6
	0.010	Switch2	PC35	ICMPv6
	0.013	PC35	Switch2	ICMPv6
	0.015	Switch2	Napoleon	ICMPv6
	0.016	Napoleon	Toledo	ICMPv6
	0.017	Toledo	Switch0	ICMPv6
	0.018	--	Switch0	ICMPv6
	0.020	Switch0	PC0	ICMPv6
	0.331	--	Port Clinton	OSPFv3
	0.332	Port Clinton	Toledo	OSPFv3
	0.334	--	Port Clinton	OSPFv3
	0.335	Port Clinton	Switch3	OSPFv3
	0.335	--	Port Clinton	OSPFv3
	0.337	Switch3	PC43	OSPFv3
	0.337	Switch3	PC44	OSPFv3
	0.337	Switch3	PC45	OSPFv3
	0.337	Switch3	PC46	OSPFv3
	0.337	Switch3	PC47	OSPFv3
	0.337	Switch3	PC48	OSPFv3
	0.337	Switch3	PC49	OSPFv3
	0.337	Switch3	PC50	OSPFv3
	0.337	Switch3	PC51	OSPFv3
	0.337	Switch3	PC52	OSPFv3
	0.337	Switch3	PC53	OSPFv3
	0.337	Switch3	PC54	OSPFv3
	0.337	Switch3	PC55	OSPFv3
	0.337	Switch3	PC56	OSPFv3
	0.338	Port Clinton	Napoleon	OSPFv3
	0.967	--	Napoleon	OSPFv3
	0.970	Napoleon	Port Clinton	OSPFv3
	1.020	--	PC0	ICMPv6
	1.023	PC0	Switch0	ICMPv6
	1.025	Switch0	Toledo	ICMPv6
	1.028	Toledo	Napoleon	ICMPv6
	1.031	Napoleon	Switch2	ICMPv6

Reset Simulation

☐ Constant Delay

Captured to:
7.006 s

Play Controls

Event List Filters - Visible Events

Edit Filters

[Show All/None](#)

Physical Config Desktop Programming Attributes

Command Prompt

```
Pinging 2001:3B21:2:3::7 with 32 bytes of data:
```

```
Reply from 2001:3B21:2:3::7: bytes=32 time<1ms TTL=126
Reply from 2001:3B21:2:3::7: bytes=32 time=1ms TTL=126
Reply from 2001:3B21:2:3::7: bytes=32 time=23ms TTL=126
Reply from 2001:3B21:2:3::7: bytes=32 time=22ms TTL=126
```

```
Ping statistics for 2001:3B21:2:3::7:
```

```

Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 23ms, Average = 11ms

```

```
C:\>ping 2001:3B21:2:3::7
```

```
Pinging 2001:3B21:2:3::7 with 32 bytes of data:
```

```
Reply from 2001:3B21:2:3::7: bytes=32 time=20ms TTL=126
Reply from 2001:3B21:2:3::7: bytes=32 time=24ms TTL=126
Reply from 2001:3B21:2:3::7: bytes=32 time=19ms TTL=126
Reply from 2001:3B21:2:3::7: bytes=32 time=20ms TTL=126
```

```
Ping statistics for 2001:3B21:2:3::7:
```

```

Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 19ms, Maximum = 24ms, Average = 20ms

```

```
C:\>ping 2001:3B21:3:3::C
```

```
Pinging 2001:3B21:3:3::C with 32 bytes of data:
```

```
Reply from 2001:3B21:3:3::C: bytes=32 time=28ms TTL=126
```

Top

Shows the ping requests between the Toledo PC to a random Napoleon and Port Clinton PC. Two screenshots show the pings and requests in the simulation panel.

Cisco Packet Tracer - U:\saves\Final Project\OSPF.plt

File Edit Options View Tools Extensions Help

Logical Physical x: 898, y: 370 [Root] 16:54:00

ASSIGNED IPv6 ADDRESS
2001:3B21::32
2001:3B21:1:3::/48

2001:3B21:1:1::1/48

2001:3B21:FFF:1::1, 1/2/64

2001:3B21:FFF:2::1, 1/2/64

2001:3B21:2:1::1/48

2001:3B21:FFF:3::1, 1/2/64

2001:3B21:3:1::1/48

2001:3B21:2:3::/48

2001:3B21:3:3::/4

Simulation Panel

Event List

Vis.	Time(sec)	Last Device	At Device	Type
	5.979	Switch2	PC40	OSPFv3
	5.979	Switch2	PC41	OSPFv3
	5.979	Switch2	PC42	OSPFv3
	5.980	Port Clinton	Switch3	NDP
	5.982	Switch3	PC43	NDP
	5.982	Switch3	PC44	NDP
	5.982	Switch3	PC45	NDP
	5.982	Switch3	PC46	NDP
	5.982	Switch3	PC47	NDP
	5.982	Switch3	PC48	NDP
	5.982	Switch3	PC49	NDP
	5.982	Switch3	PC50	NDP
	5.982	Switch3	PC51	NDP
	5.982	Switch3	PC52	NDP
	5.982	Switch3	PC53	NDP
	5.982	Switch3	PC54	NDP
	5.982	Switch3	PC55	NDP
	5.982	Switch3	PC56	NDP
	5.983	PC54	Switch3	NDP
	5.985	Switch3	Port Clinton	NDP
	5.985	--	Port Clinton	ICMPv6
	5.988	Port Clinton	Switch3	ICMPv6
	5.990	Switch3	PC54	ICMPv6
	5.992	PC54	Switch3	ICMPv6
	5.994	Switch3	Port Clinton	ICMPv6
	5.996	Port Clinton	Toledo	ICMPv6
	5.997	Toledo	Switch0	ICMPv6
	5.999	Switch0	PC0	ICMPv6
	7.002	--	PC0	ICMPv6
	7.004	PC0	Switch0	ICMPv6
	7.006	Switch0	Toledo	ICMPv6
	7.007	Toledo	Port Clinton	ICMPv6
	7.009	Port Clinton	Switch3	ICMPv6
	7.011	Switch3	PC54	ICMPv6
	7.014	PC54	Switch3	ICMPv6
	7.016	Switch3	Port Clinton	ICMPv6
	7.019	Port Clinton	Toledo	ICMPv6
	7.022	Toledo	Switch0	ICMPv6
	7.024	Switch0	PC0	ICMPv6

Reset Simulation ☐ Constant Delay Captured to: 7.024 s

Play Controls

Event List Filters - Visible Events
ICMPv6, NDP, OSPFv6, RIPv6

Edit Filters Show All/None

PC0

Physical Config Desktop Programming Attributes

Command Prompt

```
Pinging 2001:3B21:2:3::7 with 32 bytes of data:  
  
Reply from 2001:3B21:2:3::7: bytes=32 time<1ms TTL=126  
Reply from 2001:3B21:2:3::7: bytes=32 time=1ms TTL=126  
Reply from 2001:3B21:2:3::7: bytes=32 time=23ms TTL=126  
Reply from 2001:3B21:2:3::7: bytes=32 time=22ms TTL=126  
  
Ping statistics for 2001:3B21:2:3::7:  
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),  
    Approximate round trip times in milli-seconds:  
        Minimum = 0ms, Maximum = 23ms, Average = 11ms  
  
C:\>ping 2001:3B21:2:3::7  
  
Pinging 2001:3B21:2:3::7 with 32 bytes of data:  
  
Reply from 2001:3B21:2:3::7: bytes=32 time=20ms TTL=126  
Reply from 2001:3B21:2:3::7: bytes=32 time=24ms TTL=126  
Reply from 2001:3B21:2:3::7: bytes=32 time=19ms TTL=126  
Reply from 2001:3B21:2:3::7: bytes=32 time=20ms TTL=126  
  
Ping statistics for 2001:3B21:2:3::7:  
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),  
    Approximate round trip times in milli-seconds:  
        Minimum = 19ms, Maximum = 24ms, Average = 20ms  
  
C:\>ping 2001:3B21:3:3::C  
  
Pinging 2001:3B21:3:3::C with 32 bytes of data:  
  
Reply from 2001:3B21:3:3::C: bytes=32 time=28ms TTL=126  
Reply from 2001:3B21:3:3::C: bytes=32 time=22ms TTL=126
```

Top

```

TOL-RT#show ipv6 route
IPv6 Routing Table - 10 entries
Codes: C - Connected, L - Local, S - Static, R - RIP, B - BGP
       U - Per-user Static route, M - MIPv6
       I1 - ISIS L1, I2 - ISIS L2, IA - ISIS interarea, IS - ISIS summary
       O - OSPF intra, OI - OSPF inter, OE1 - OSPF ext 1, OE2 - OSPF ext 2
       ON1 - OSPF NSSA ext 1, ON2 - OSPF NSSA ext 2
       D - EIGRP, EX - EIGRP external
C  2001:3B21:1::/48 [0/0]
    via Vlan1, directly connected
L  2001:3B21:1:1::1/128 [0/0]
    via Vlan1, receive
O  2001:3B21:2::/48 [110/2]
    via FE80::2D0:FFFF:FEE2:A402, GigabitEthernet0/1
O  2001:3B21:3::/48 [110/2]
    via FE80::260:70FF:FE4E:DE02, GigabitEthernet0/2
C  2001:3B21:FFFF:1::/64 [0/0]
    via GigabitEthernet0/1, directly connected
L  2001:3B21:FFFF:1::1/128 [0/0]
    via GigabitEthernet0/1, receive
C  2001:3B21:FFFF:2::/64 [0/0]
    via GigabitEthernet0/2, directly connected
L  2001:3B21:FFFF:2::1/128 [0/0]
    via GigabitEthernet0/2, receive
O  2001:3B21:FFFF:3::/64 [110/2]
    via FE80::2D0:FFFF:FEE2:A402, GigabitEthernet0/1
    via FE80::260:70FF:FE4E:DE02, GigabitEthernet0/2
L  FF00::/8 [0/0]
    via Null0, receive

```

```

PTC-RT#show ipv6 route
IPv6 Routing Table - 10 entries
Codes: C - Connected, L - Local, S - Static, R - RIP, B - BGP
       U - Per-user Static route, M - MIPv6
       I1 - ISIS L1, I2 - ISIS L2, IA - ISIS interarea, IS - ISIS summary
       O - OSPF intra, OI - OSPF inter, OE1 - OSPF ext 1, OE2 - OSPF ext 2
       ON1 - OSPF NSSA ext 1, ON2 - OSPF NSSA ext 2
       D - EIGRP, EX - EIGRP external
O  2001:3B21:1::/48 [110/2]
    via FE80::20C:FFFF:FE27:8203, GigabitEthernet0/1
O  2001:3B21:2::/48 [110/2]
    via FE80::2D0:FFFF:FEE2:A403, GigabitEthernet0/2
C  2001:3B21:3::/48 [0/0]
    via Vlan1, directly connected
L  2001:3B21:3:1::1/128 [0/0]
    via Vlan1, receive
O  2001:3B21:FFFF:1::/64 [110/2]
    via FE80::20C:FFFF:FE27:8203, GigabitEthernet0/1
    via FE80::2D0:FFFF:FEE2:A403, GigabitEthernet0/2
C  2001:3B21:FFFF:2::/64 [0/0]
    via GigabitEthernet0/1, directly connected
L  2001:3B21:FFFF:2::2/128 [0/0]
    via GigabitEthernet0/1, receive
C  2001:3B21:FFFF:3::/64 [0/0]
    via GigabitEthernet0/2, directly connected
L  2001:3B21:FFFF:3::2/128 [0/0]
    via GigabitEthernet0/2, receive
L  FF00::/8 [0/0]
    via Null0, receive

```

```

NAP-RT#show ipv6 route
IPv6 Routing Table - 10 entries
Codes: C - Connected, L - Local, S - Static, R - RIP, B - BGP
       U - Per-user Static route, M - MIPv6
       I1 - ISIS L1, I2 - ISIS L2, IA - ISIS interarea, IS - ISIS summary
       O - OSPF intra, OI - OSPF inter, OE1 - OSPF ext 1, OE2 - OSPF ext 2
       ON1 - OSPF NSSA ext 1, ON2 - OSPF NSSA ext 2
       D - EIGRP, EX - EIGRP external
O  2001:3B21:1::/48 [110/2]
    via FE80::20C:FFFF:FE27:8202, GigabitEthernet0/1
C  2001:3B21:2::/48 [0/0]
    via Vlan1, directly connected
L  2001:3B21:2:1::1/128 [0/0]
    via Vlan1, receive
O  2001:3B21:3::/48 [110/2]
    via FE80::260:70FF:FE4E:DE03, GigabitEthernet0/2
C  2001:3B21:FFFF:1::/64 [0/0]
    via GigabitEthernet0/1, directly connected
L  2001:3B21:FFFF:1::2/128 [0/0]
    via GigabitEthernet0/1, receive
O  2001:3B21:FFFF:2::/64 [110/2]
    via FE80::20C:FFFF:FE27:8202, GigabitEthernet0/1
    via FE80::260:70FF:FE4E:DE03, GigabitEthernet0/2
C  2001:3B21:FFFF:3::/64 [0/0]
    via GigabitEthernet0/2, directly connected
L  2001:3B21:FFFF:3::1/128 [0/0]
    via GigabitEthernet0/2, receive
L  FF00::/8 [0/0]
    via Null0, receive

```

TOLEDO ROUTER

```
!  
version 15.1  
no service timestamps log datetime msec  
no service timestamps debug datetime msec  
no service password-encryption  
!  
hostname TOL-RT  
!  
!  
!  
!  
!  
!  
!  
!  
no ip cef  
ipv6 unicast-routing  
!  
no ipv6 cef  
!  
!  
!  
license udi pid CISC02911/K9 sn FTX15248E28-  
!  
!  
!  
!  
!  
!  
!  
!  
!  
!  
spanning-tree mode pvst  
!  
!  
!  
!  
!  
interface GigabitEthernet0/0  
no ip address  
duplex auto  
speed auto  
shutdown  
!  
interface GigabitEthernet0/1  
no ip address  
duplex auto
```

```
speed auto
ipv6 address 2001:3B21:FFFF:1::1/64
ipv6 enable
ipv6 ospf 100 area 0
!
interface GigabitEthernet0/2
no ip address
duplex auto
speed auto
ipv6 address 2001:3B21:FFFF:2::1/64 anycast
ipv6 enable
ipv6 ospf 100 area 0
!
interface FastEthernet0/0/0
switchport mode access
switchport nonegotiate
!
interface FastEthernet0/0/1
switchport mode access
switchport nonegotiate
!
interface FastEthernet0/0/2
switchport mode access
switchport nonegotiate
!
interface FastEthernet0/0/3
switchport mode access
switchport nonegotiate
!
interface Vlan1
description 1
no ip address
ipv6 address 2001:3B21:1:1::1/48
ipv6 enable
ipv6 ospf 100 area 0
!
ipv6 router ospf 100
router-id 0.0.0.1
log-adjacency-changes
!
ip classless
!
ip flow-export version 9
!
!
!
!
!
!
!
line con 0
!
line aux 0
```

```
!  
line vty 0 4  
  login  
!  
!  
!  
end
```

NAPOLEON ROUTER

```
!  
version 15.1  
no service timestamps log datetime msec  
no service timestamps debug datetime msec  
no service password-encryption  
!  
hostname NAP-RT  
!  
!  
!  
!  
!  
!  
!  
!  
no ip cef  
ipv6 unicast-routing  
!  
no ipv6 cef  
!  
!  
!  
!  
license udi pid CISCO2911/K9 sn FTX1524R856-  
!  
!  
!  
!  
!  
!  
!  
!  
!  
!  
spanning-tree mode pvst  
!  
!  
!  
!  
!  
!
```

```
interface GigabitEthernet0/0
  no ip address
  duplex auto
  speed auto
  shutdown
!
interface GigabitEthernet0/1
  no ip address
  duplex auto
  speed auto
  ipv6 address 2001:3B21:FFFF:1::2/64 anycast
  ipv6 enable
  ipv6 ospf 100 area 0
!
interface GigabitEthernet0/2
  no ip address
  duplex auto
  speed auto
  ipv6 address 2001:3B21:FFFF:3::1/64 anycast
  ipv6 enable
  ipv6 ospf 100 area 0
!
interface FastEthernet0/0/0
  switchport mode access
  switchport nonegotiate
!
interface FastEthernet0/0/1
  switchport mode access
  switchport nonegotiate
!
interface FastEthernet0/0/2
  switchport mode access
  switchport nonegotiate
!
interface FastEthernet0/0/3
  switchport mode access
  switchport nonegotiate
!
interface Vlan1
  no ip address
  ipv6 address 2001:3B21:2:1::1/48
  ipv6 enable
  ipv6 ospf 100 area 0
!
ipv6 router ospf 100
  router-id 0.0.0.2
  log-adjacency-changes
!
ip classless
!
ip flow-export version 9
!
!
```

```
no cdp run
!
!
!
!
!
!
line con 0
!
line aux 0
!
line vty 0 4
  login
!
!
!
end
```

PORT CLINTON ROUTER

```
!
version 15.1
no service timestamps log datetime msec
no service timestamps debug datetime msec
no service password-encryption
!
hostname PTC-RT
!
!
!
!
!
!
!
!
no ip cef
ipv6 unicast-routing
!
no ipv6 cef
!
!
!
!
license udi pid CISCO2911/K9 sn FTX15248961-
!
!
!
!
!
!
!
```



```
!  
!  
!  
spanning-tree mode pvst  
!  
!  
!  
!  
!  
!  
interface GigabitEthernet0/0  
  no ip address  
  duplex auto  
  speed auto  
  shutdown  
!  
interface GigabitEthernet0/1  
  no ip address  
  duplex auto  
  speed auto  
  ipv6 address 2001:3B21:FFFF:2::2/64 anycast  
  ipv6 enable  
  ipv6 ospf 100 area 0  
!  
interface GigabitEthernet0/2  
  no ip address  
  duplex auto  
  speed auto  
  ipv6 address 2001:3B21:FFFF:3::2/64 anycast  
  ipv6 enable  
  ipv6 ospf 100 area 0  
!  
interface FastEthernet0/0/0  
  switchport mode access  
  switchport nonegotiate  
!  
interface FastEthernet0/0/1  
  switchport mode access  
  switchport nonegotiate  
!  
interface FastEthernet0/0/2  
  switchport mode access  
  switchport nonegotiate  
!  
interface FastEthernet0/0/3  
  switchport mode access  
  switchport nonegotiate  
!  
interface Vlan1  
  no ip address  
  ipv6 address 2001:3B21:3:1::1/48  
  ipv6 enable  
  ipv6 ospf 100 area 0  
!
```

```
ipv6 router ospf 100
  router-id 0.0.0.3
  log-adjacency-changes
!
ip classless
!
ip flow-export version 9
!
!
!
no cdp run
!
!
!
!
!
!
line con 0
!
line aux 0
!
line vty 0 4
  login
!
!
!
end
```