

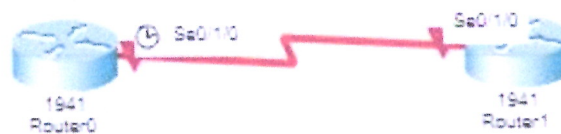
## IFT 266 Introduction to Network Information Communication Technology (ICT)

### Lab 33

#### Using the CLI to Create IPV6 Link-Local, GUA's, Subnets, and Auto Configure their PC's

Co-authored by Paul Polsinelli

Choose from the list of commands from the bottom of the page and put them in the right order by typing them in the proper box.



1. Enable ipv6 unicast-routing and link-local addresses on two router serial connections.

#### Router0

Router>

Router#

Router (config)#

Router (config)#

Router (config-if)#

Router (config-if)#

enable terminal	ipv6 address 2001:DB8:ACAD:A::1/32	ipv6 address FE80::1 local-link
shutdown	change state to up	interface g0/0
interface s0/1/0	enable	configure terminal
begin configure	ipv6 address 2001:DB8:ACAD:B::1/64	ipv6 address FE80::1 link-local
no shutdown	ipv6 unicast-routing	interface fa0/1
		ipv6 address 2001:DB8:ACAD:A::1/64

## Router1

Router> en

Router# conf t

Router (config)# IPv6 unicast-routing

Router (config)# Int S0/1/0

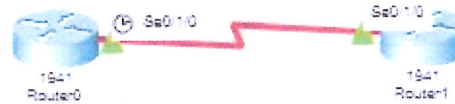
Router (config-if)# IPv6 address FE80::1 link-local

Router (config-if)# No shut

enable terminal	ipv6 address 2001:DB8:ACAD:A::1/32	ipv6 address FE80::1 local-link
shutdown	change state to up	interface g0/0
interface s0/1/0	enable	configure terminal
begin configure	ipv6 address 2001:DB8:ACAD:B::1/64	ipv6 address FE80::1 link-local
no shutdown	ipv6 unicast-routing	interface fa0/1
		ipv6 address 2001:DB8:ACAD:A::1/64

2. Create the topology in packet tracer and input the commands you selected above.

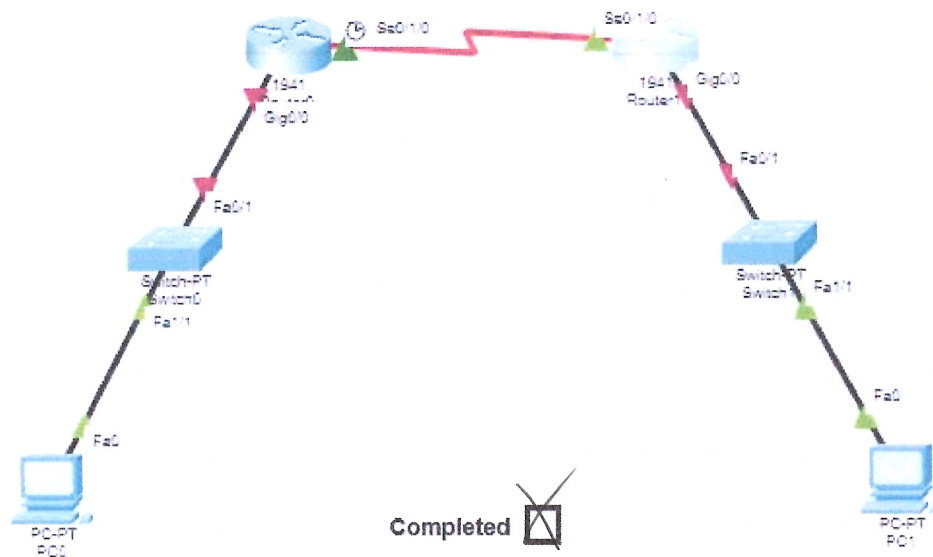
Your topology should now look like the following image



Completed



3. We will now add 2 switches and 2 PCs to our topology.



Completed



4. Enable ipv6 link-local addresses on two router gigabit connections.

### Router0

Router>

en

Router#

conf t

Router (config)#

Int g0/0

Router (config-if)#

IPv6 address fe80::1 link-local

Router (config-if)#

No shut

enable terminal

ipv6 address 2001:DB8:ACAD:A::1/32

ipv6 address FE80::1 local-link

shutdown

change state to up

interface g0/0

create unicast

interface s0/1/0

enable

configure terminal

ipv6 address 2001:DB8:ACAD:A::1/32

begin configure

ipv6 address 2001:DB8:ACAD:B::1/64

ipv6 address FE80::1 link-local

no shutdown

ipv6 unicast-routing

interface fa0/1

ipv6 address 2001:DB8:ACAD:A::1/64

### Router1

Router>

en

Router#

conf t

Router (config)#

g0/0

Router (config-if)#

IPv6 address FE80::1 link-local

Router (config-if)#

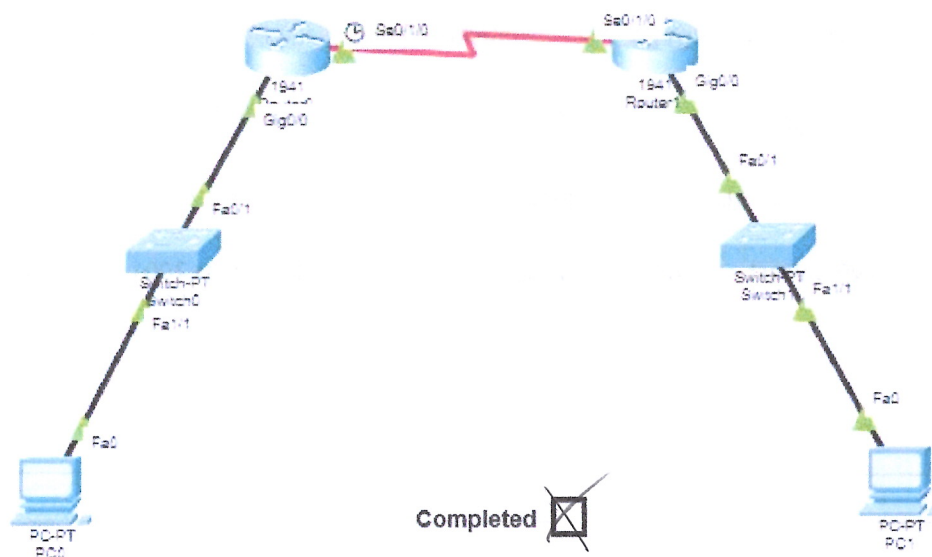
No shut

enable terminal	ipv6 address 2001:DB8:ACAD:A::1/32	ipv6 address FE80::1 local-link
shutdown	change state to up	interface g0/0
interface s0/1/0	enable	configure terminal
begin configure	ipv6 address 2001:DB8:ACAD:B::1/64	ipv6 address FE80::1 link-local
no shutdown	ipv6 unicast-routing	interface fa0/1
		ipv6 address 2001:DB8:ACAD:A::1/64

5. Input the commands in packet tracer.

Completed ☒

6. Your topology should now look like the following image.



Completed ☒



7. Now we will configure the routers with Global Unicast Addresses (GUA)s.

### Router0

Router>

en

Router#

conf t

Router (config)#

Int g0/0

Router (config-if)#

IPv6 address 2001:db8:acad:a::1/64

Router (config-if)#

No shut

enable terminal

ipv6 address 2001:DB8:ACAD:A::1/32

ipv6 address FE80::1 local-link

shutdown

change state to up

interface g0/0

create unicast

interface s0/1/0

enable

configure terminal

ipv6 address 2001:DB8:ACAD:A::1/32

begin configure

ipv6 address 2001:DB8:ACAD:B::1/64

ipv6 address FE80::1 link-local

no shutdown

ipv6 unicast-routing

interface fa0/1

ipv6 address 2001:DB8:ACAD:A::1/64

### Router1

Router>

en

Router#

conf t

Router (config)#

Int g0/0

Router (config-if)#


IPv6 address 2001:db8:acad:b::1/64

Router (config-if)#

No shut

enable terminal	ipv6 address 2001:DB8:ACAD:A::1/32	ipv6 address FE80::1 local-link
shutdown	change state to up	interface g0/0
interface s0/1/0	enable	configure terminal
begin configure	ipv6 address 2001:DB8:ACAD:B::1/64	ipv6 address FE80::1 link-local
no shutdown	ipv6 unicast-routing	interface fa0/1
		ipv6 address 2001:DB8:ACAD:A::1/64

8. Input the commands in packet tracer.

Completed 

9. You should now be able to Auto Config the PC's.

The fields IPv6 Address, Link Local Address, and IPv6 Gateway should automatically populate.

Do this autoconfiguration for PC1, then take a screenshot and insert below.

