

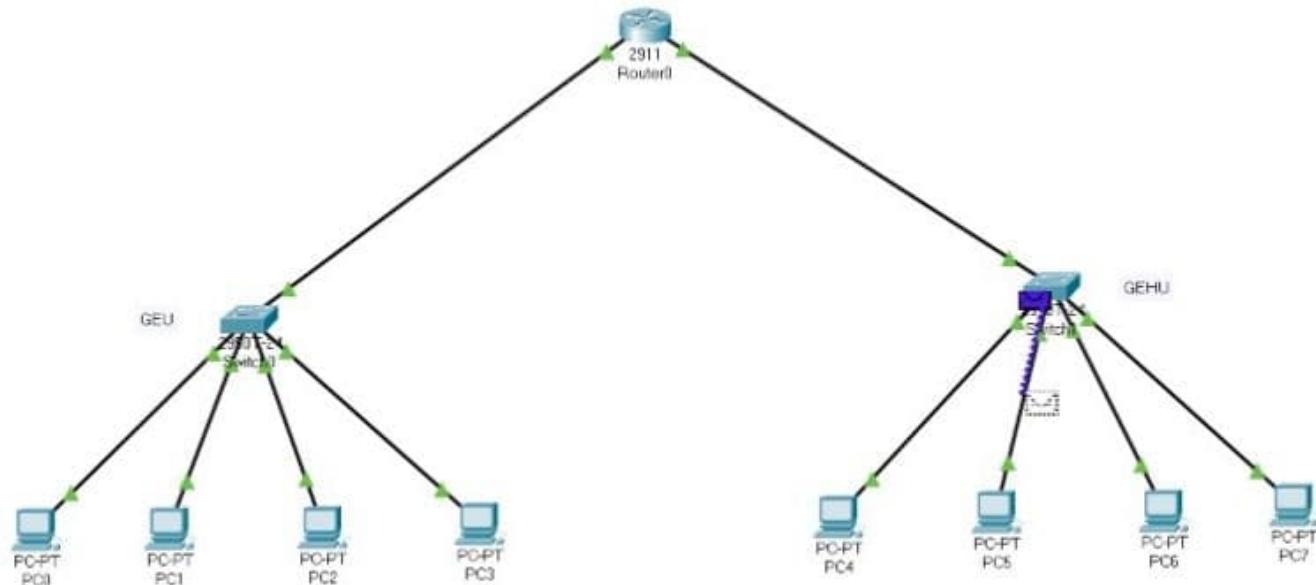
Name - Bhawani Singh BISTT. Subject - Computer
Section - Haldwani network
SUBJECT CODE - PMC-202

① - Problem statement :- There is an organization A with multiple departments. Design a network for the HR department & the size of the department is 10 users. Also the comm b/w user number 1 & user no. 5 of network.

objective → The objective is to establish connection b/w organization with help of wires & networking devices.

- Steps ① • first place PC, routers & switch screen.
- ② • Then connect them using copper wire.
 - ③ • Connect switch and router with wires.
 - ④ • Then hard configuring the devices.


Logical Physical x 1549, y 371

[Root] ◀ ▶ Cloud Network User 10:09 30


Simulation Panel				
Event List				
Vis.	Time(sec)	Last Device	At Device	Type
	0.000	-	PC03	
	0.001	PC03	Switch0	
	0.002	Switch0	Router0	
	0.003	Router0	Switch1	
	0.004	Switch1	PC05	
	0.005	PC05	Switch1	
	0.006	Switch1	Router0	
	0.007	Router0	Switch0	
	0.008	Switch0	PC03	
	0.381	-	Switch1	

 Constant Delay Captured to: 0.381 s
Play Controls ◀ ▶ ▶▶

Event List Filters - Visible Events
 ACL Filter, ARP, BGP, Bluetooth, CAPWAP, CDP, DHCP, DHCPv6, DNS, DTP, EAPOL, EIGRP, EIGRPv6, FTP, H.323, HSRP, HSRPv6, HTTP, HTTPS, ICMP, ICMPv6, ISAKMP, IoT, IoT TCP, LACP, LLDP, Meraki, NDP, NETFLOW, NTP, OSPF, OSPFv3, PAgP, POP3, PPP, PPPoE, PTP, RADIUS, REP, RIP, RIPng, RTP, SCP, SMTP, SNMP, SSH, STP, SYSLOG, TACACS, TFTP, Telnet, UDP, USB, VTP

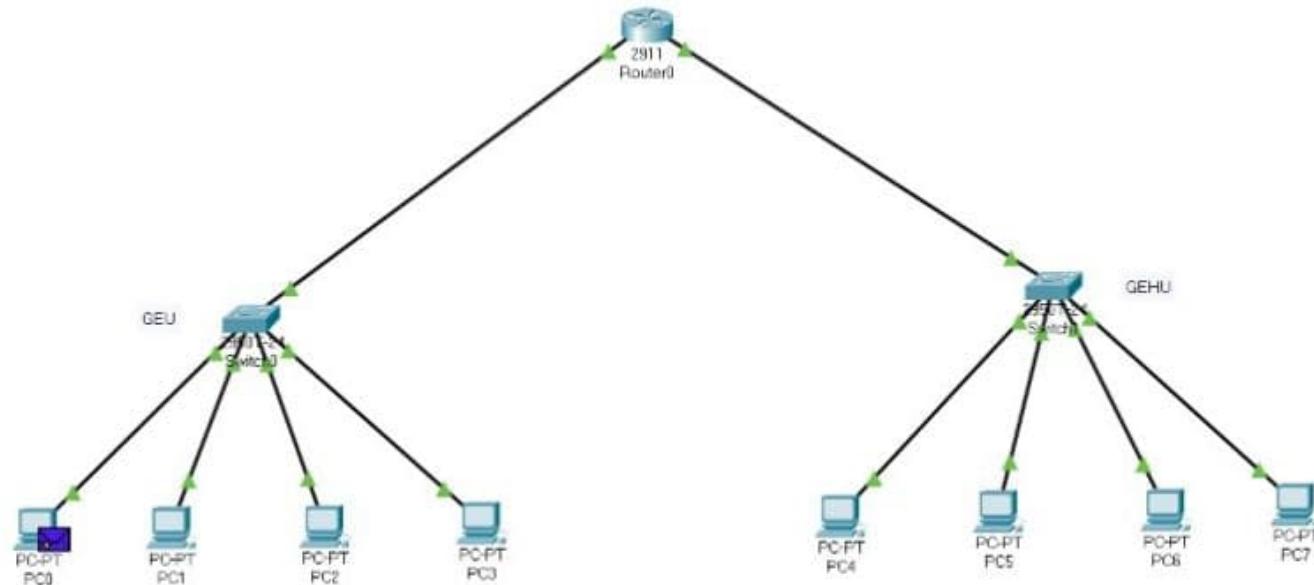
Time: 00:17:46.918 PLAY CONTROLS ◀ ▶ ▶▶

Configure Straight-Through
Scenario 0 New Delete

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
Successful	PC03	PC05	ICMP	Blue	0.000	N	0	(edit)		(delete)

Toggle PDU List Window
Event List Realtime Simulation


Logical Physical x 1553, y 600

[Root] ◀ ▶ Cloud Network User 10:23:00


Simulation Panel

Event List

Via	Time(sec)	Last Device	At Device	Type
	0.000	-	PC0	
	0.001	PC0	Switch0	
	0.002	Switch0	Router0	
	0.003	Router0	Switch1	
	0.004	Switch1	PC5	
	0.005	PC5	Switch1	
	0.006	Switch1	Router0	
	0.007	Router0	Switch0	
	0.008	Switch0	PC0	ICMP
	0.381	-	Switch1	

Reset Simulation Constant Delay Captured to: 0.381 s

Play Controls



Event List Filters - Visible Events

ADL Filter, ARP, BGP, Bluetooth, CAPWAP, CDP, DHCP, DHCPv6, DNS, DTP, EAPOL, EIGRP, EIGRPv6, FTP, H.323, HSRP, HSRPv6, HTTP, HTTPS, ICMP, ICMPv6, ISAKMP, IoT, IoT-TOP, LACP, LLDP, Meraki, NDP, NETFLOW, NTP, OSPF, OSPFv6, FAgP, POP3, PPP, PPPoED, PTP, RADIUS, REP, RIP, RIPng, RTP, SCP, SMTP, SNMP, SSH, STP, SYSLOG, TACACS, TFTP, Telnet, UDP, USB, VTP

Edit Filters Show All/None


Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
Successful		PC0	PC5	ICMP	Blue	0.000	N	0	(edit)	(delete)

Toggle PDU List Window
Event List Realtime Simulation



Logical Physical x 1560, y 377

[Root] 09:21:30

PC4

-
-
- ×

Physical Config Desktop Programming Attributes

IP Configuration

Interface: FastEthernet0

IP Configuration

DHCP Static

IPv4 Address: 192.168.1.1

Subnet Mask: 255.255.255.0

Default Gateway: 192.168.1.5

DNS Server: 0.0.0.0

IPv6 Configuration

Automatic Static

IPv6 Address: [] / []

Link Local Address: FE80::2021:FF:FEA2:C3DB

Default Gateway:

DNS Server:

802.1X

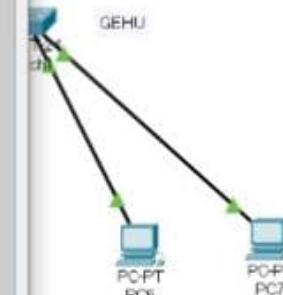
Use 802.1X Security

Authentication: MD5

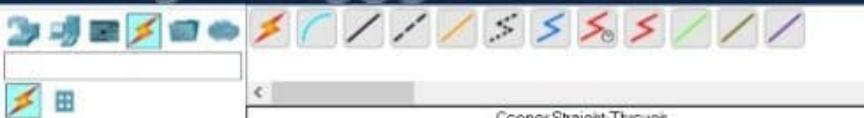
Username: []

Password: []

Top



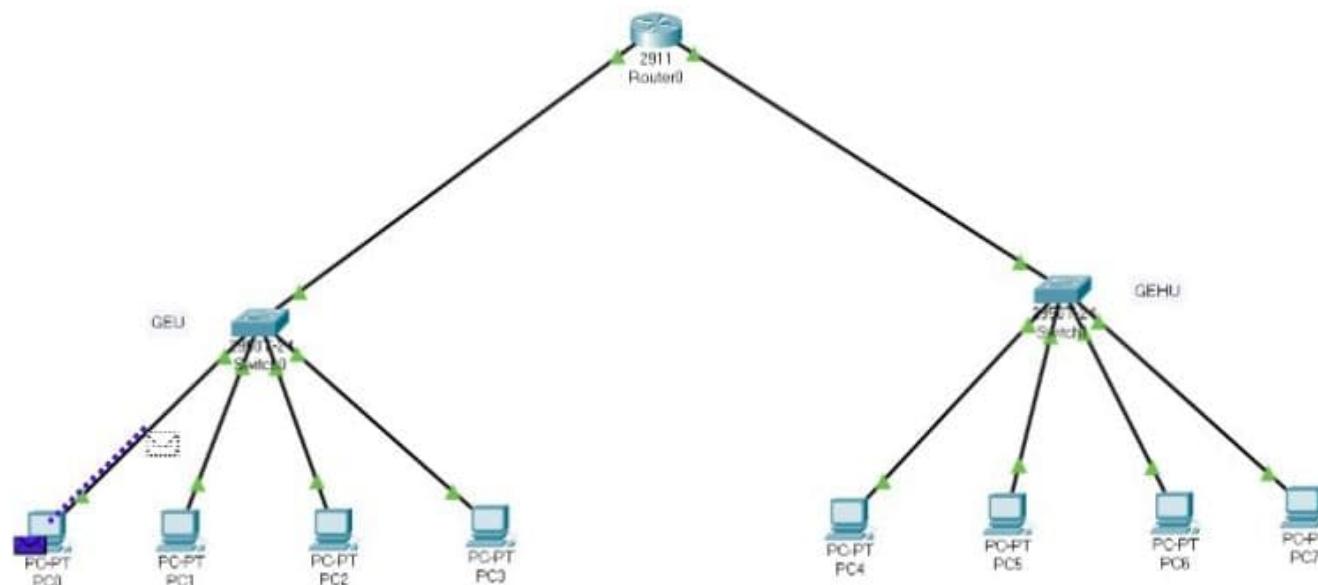
Time: 00:17:45.635 PLAY CONTROLS (◀ ▶ ▶)



Event List Realtime Simulation

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
New	Delete	Toggle PDU List Window								


Logical Physical x 1398, y 707

[Root] ? 09:39:30


Simulation Panel

Event List

Via	Time(sec)	Last Device	At Device
	0.000	-	PC3
	0.001	PC3	Switch0

Play Controls

Event List Filters - Visible Events

ACL, ARP, BGP, Bluetooth, CAPWAP, CDP, DHCP, DHCPv6, DNS, DTP, EAPOL, EIGRP, EIGRPv6, FTP, H.323, HSRP, HSRPv6, HTTP, HTTPS, ICMP, ICMPv6, IPSec, ISANMP, IoT, IoT TCP, LACP, LLDP, Miereki, NDP, NETFLOW, NTP, OSPF, OSPFv6, PAgP, POP3, PPP, PPPoED, PTP, RADIUS, REP, RIP, RIPv2, RTP, SCP, SMTP, SNMP, SSH, STP, SYSLOG, TACACS, TFTP, Telnet, UDP, USB, VTP

Edit Filters **Show All/None**



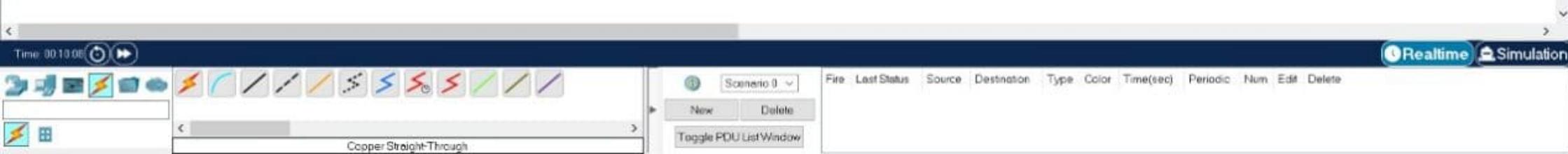
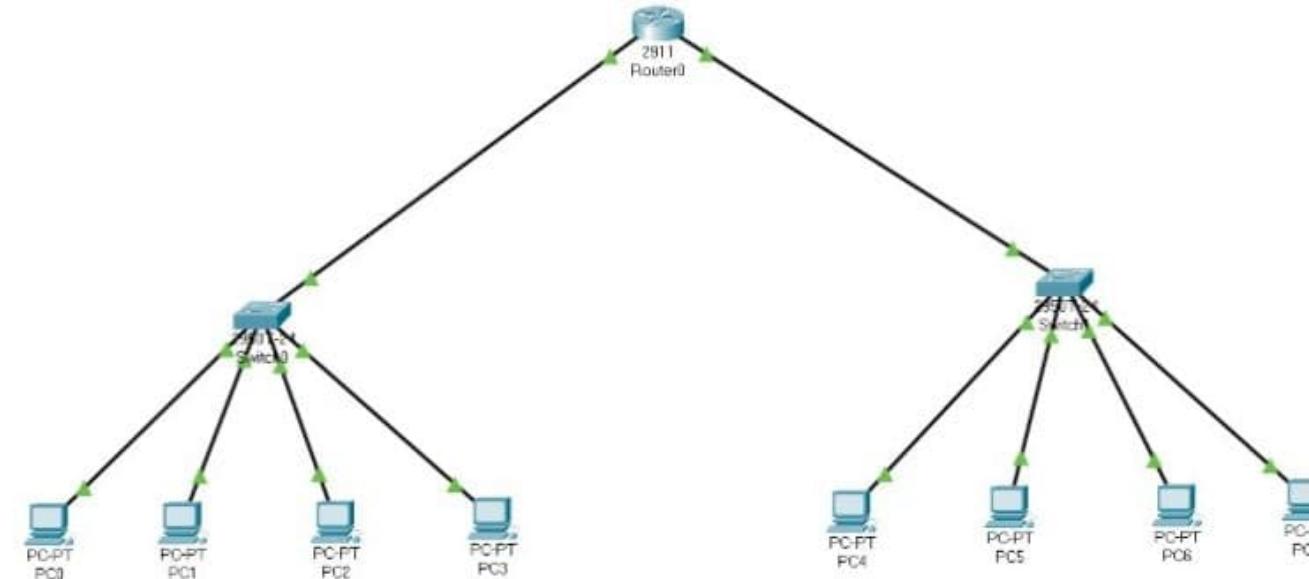
Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
<input checked="" type="radio"/>	In Progress	PC0	PC5	ICMP	<input checked="" type="checkbox"/>	0.000	N	0	(edit)	(delete)

Toggle PDU List Window



Logical Physical x 1529, y 376

[Root] 05.11.30





Logical Physical x 539 y 494

[Root] 09:00:30

PC0

-
-
- ×

Physical Config Desktop Programming Attributes

IP Configuration

Interface: FastEthernet0

IP Configuration

DHCP Static

IPv4 Address: 10.0.0.1

Subnet Mask: 255.0.0.0

Default Gateway: 10.0.0.5

DNS Server: 0.0.0.0

IPv6 Configuration

Automatic Static

IPv6 Address: [] / []

Link Local Address: FE80:2E0:A3FF:FE11:85AE

Default Gateway:

DNS Server:

802.1X

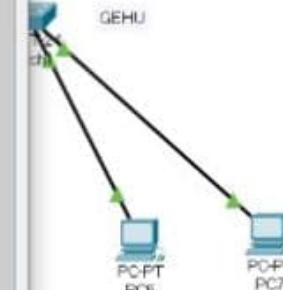
Use 802.1X Security

Authentication: MD5

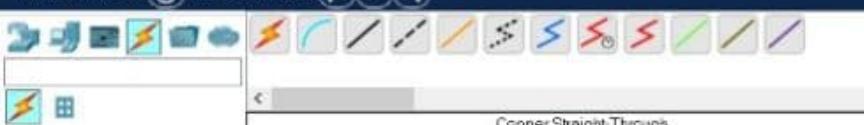
Username: []

Password: []

Top



Time: 00:17:35.635 PLAY CONTROLS (◀ ▶ ▶)



Event List Realtime Simulation

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
New	Delete	Toggle PDU List Window								

② Problem statement :- There are two organisation in a city named GREU and GEHU design a network b/w the SOC department of GREU, and GEHU. Also show the communication b/w user number 1 of GREU and user number 2 of GEHU.

Objective :- We will create a virtual LAN environment in cisco packet tracer that will connect 2 user of different departments & connection will be established.

Steps to perform :-

1) We will place nodes first :-

- 2 organizations named GREU and GEHU.
- SOC Departments.
- User 1 & User 2

2) We will place 2 router and 2 switches

Router 0, Router 1

Switch 0, Switch 1

3) - Connect both routers with Serial DTE wire.

4) Connect switch & router with normal wire.

5) Add 2 System or 2 users in each organisation named user no. 1 & user no. 2.

- ⑥ - Assign IP address to all 4 Systems in both departments.
- ⑦ - We had assigned following IP addresses to 2 system.

IP of G/EU user 1 :- 192.168.10.2

IP of G/EU user 2 :- 192.168.20.3

- ⑧ Now again there a 2 ways to verify communication b/w 2 users
- Pinging other user IP
 - Sending PDU packet from user 1 to user 2

We can see now user 1 & user 2 connected.

We are able to communicate b/w them via various methods.

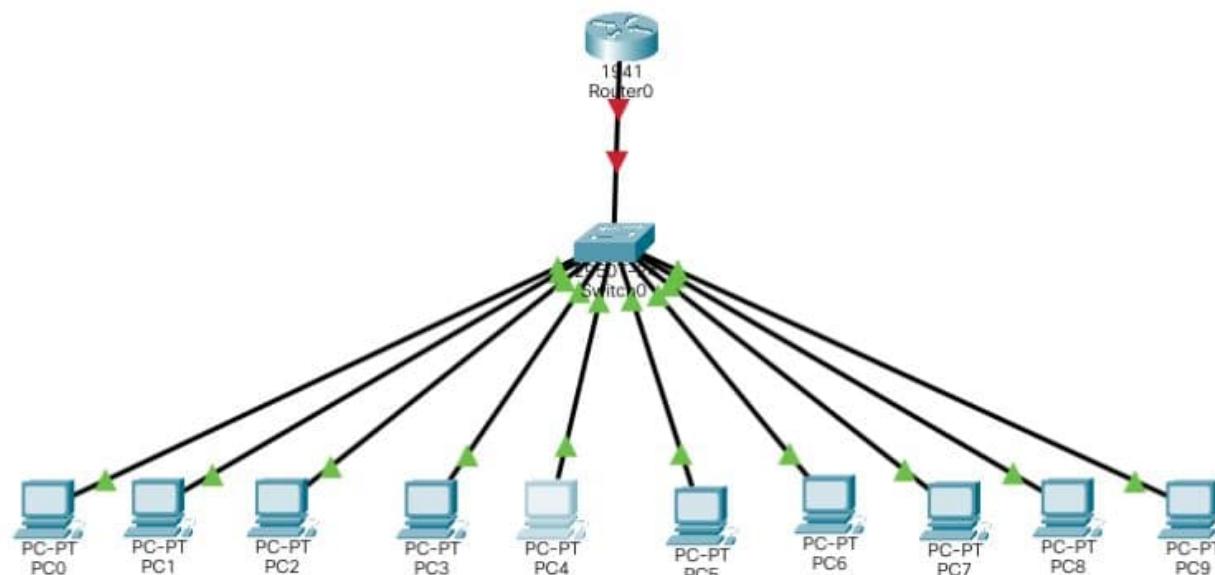
Cisco Packet Tracer

File Edit Options View Tools Extensions Window Help



Logical Physical

[Root] 05:04:30



Time: 00:09:52

Realtime Simulation



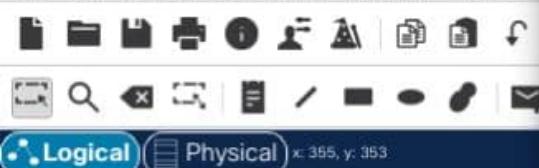
Scenario 0 ▾

Fire	Last Status	Source	Destination	Type	Color	Time(sec)	Periodic	Num	Edit	Delete
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Copper Straight-Through

File Edit Options View Tools Extensions Window



PC0

Physical Config Desktop Programming Attributes

GLOBAL

Settings
Algorithm Settings

INTERFACE

FastEthernet0
Bluetooth

FastEthernet0

Port Status: On (checked)

Bandwidth: 100 Mbps (radio button selected)

Duplex: Full-Duplex (radio button selected)

MAC Address: 0003.E47C.ACA0

IP Configuration: Static (radio button selected)

IPv4 Address: 192.168.1.1

Subnet Mask:

IPv6 Configuration: Static (radio button selected)

IPv6 Address:

Link Local Address: FE80::203:E4FF:FE7C:ACA0

Time: 00:08:34

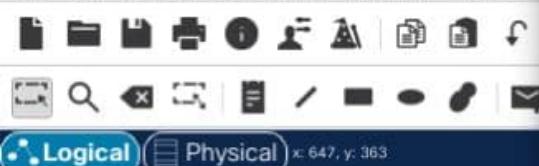
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Copper Straight-Through

Toggle PDU List Window



File Edit Options View Tools Extensions Window



PC4

Physical Config Desktop Programming Attributes

GLOBAL

Settings
Algorithm Settings

INTERFACE

FastEthernet0
Bluetooth

FastEthernet0

Port Status: On (checked)

Bandwidth: 100 Mbps (radio button selected)

Duplex: Half-Duplex (radio button selected)

MAC Address: 0009.7C76.71E4

IP Configuration: Static (radio button selected)

IPv4 Address: 192.168.1.5

Subnet Mask: 255.255.255.0

IPv6 Configuration: Static (radio button selected)

IPv6 Address: FE80::209:7CFF:FE76:71E4

Link Local Address: FE80::209:7CFF:FE76:71E4

Time: 00:09:47

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Copper Straight-Through

Toggle PDU List Window

