



PAF-Karachi Institute of Economics and Technology
College of Computing and Information Sciences - North Campus
~~Internet & Intranet Architecture~~

Assignment – 2

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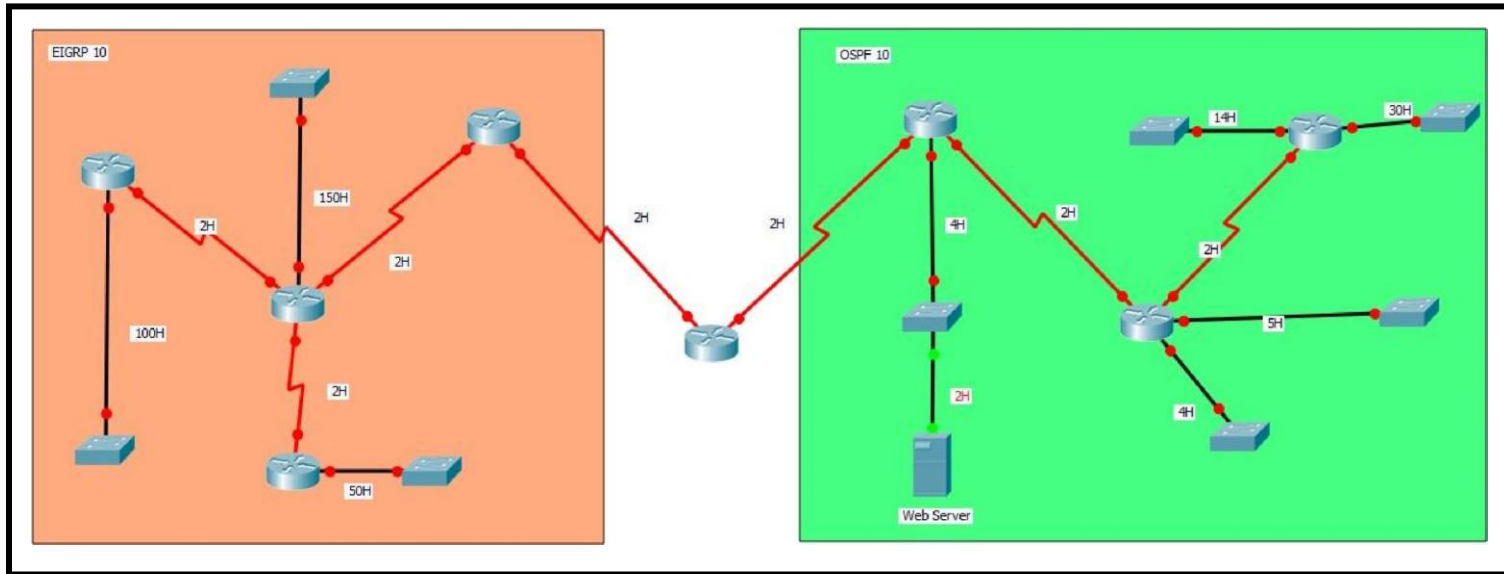
S.ID: 11070

C.ID: 109138

Instructions (READ AND FOLLOW INSTRUCTIONS CAREFULLY):

- In case of **CHEATING, COPIED** material or any unfair means would result in **ZERO** marks.
- Mention your name and ID above and write solution in this file and then submit in word or PDF format.
- **Submissions will only acceptable in hardcopies**
- Late submission will result in mark deduction

Submission Deadline: 12-05-2022

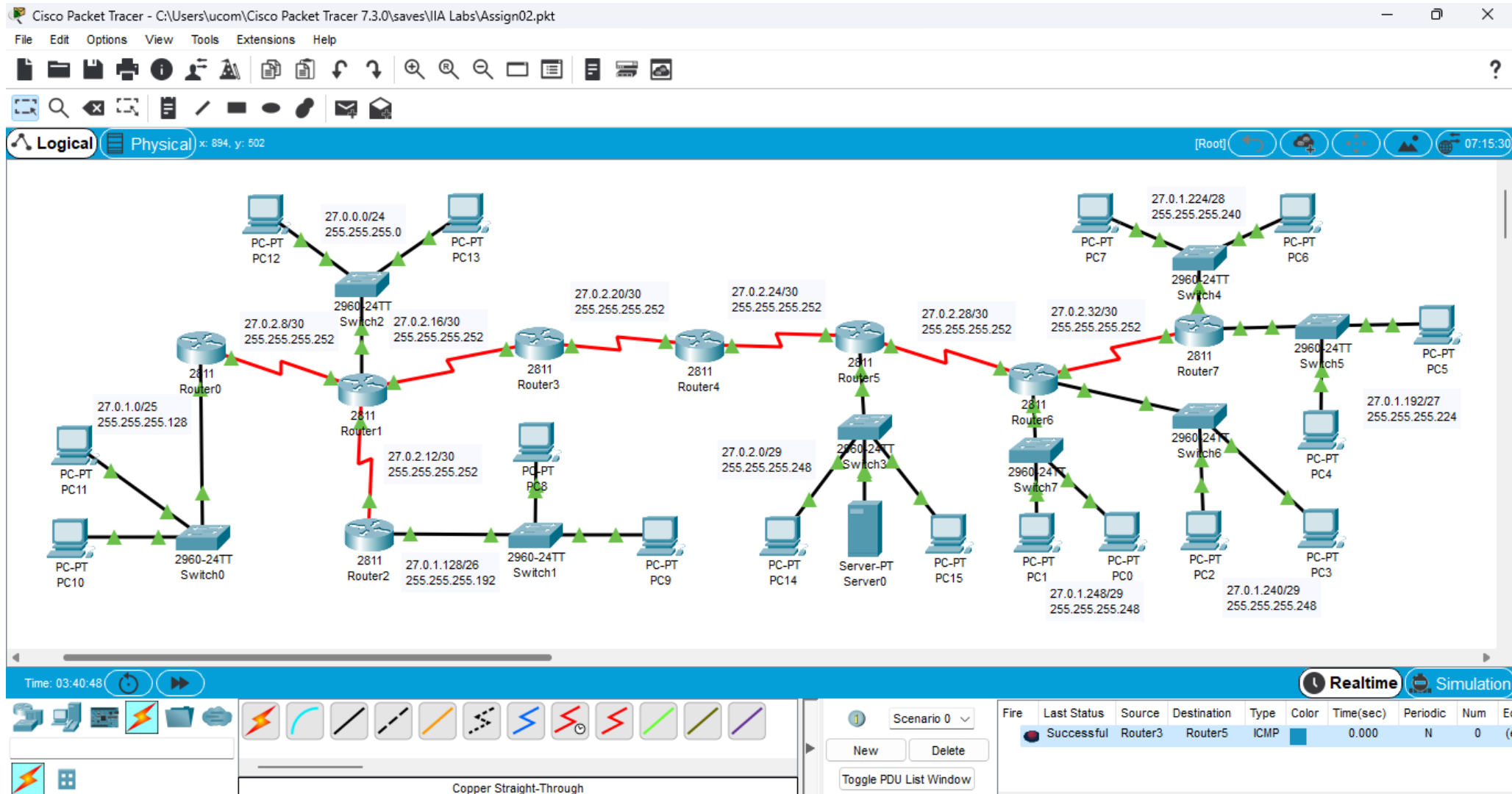


Instructions (for Topology Configuration)

- Change all router hostname with your name
- Use major network which is assigned to you only
- Configure EIGRP 10 on left side.
- Configure Route Redistribution
- Configure the OSPF 10 on right side.
- Connect at least 2 PC with each switch.
- All end devices should communicate with each other.
- All end devices should communicate web server but only OSPF side end devices should access website.
- Submit screenshot of topology with network labels
- Submit screenshots of routing table of all routers
- Submit screenshot of ACL configuration
- Submit screenshot of web server
- Submit screenshot of 1 PC accessing website and 1 PC from EIGRP that is not allowed to access website

If anyone failed to follow any instruction I will deduct 1 marks for each instruction.

[Solution]



TOPOLOGY

Cisco Packet Tracer - C:\Users\ucom\Cisco Packet Tracer 7.3.0\saves\IIA Labs\Assign02.pkt

File Edit Options View Tools Extensions Help

Router0

Physical Config CLI Attributes

IOS Command Line Interface

```
D 27.0.0.0/24 [90/2172416] via 27.0.2.10, 00:34:05, Serial0/3/0
C 27.0.1.0/25 is directly connected, FastEthernet0/0
D 27.0.1.128/26 [90/2684416] via 27.0.2.10, 00:32:46,
Serial0/3/0
D EX 27.0.1.192/27 [170/27136256] via 27.0.2.10, 00:25:50,
Serial0/3/0
D EX 27.0.1.224/28 [170/27136256] via 27.0.2.10, 00:25:50,
Serial0/3/0
D EX 27.0.1.240/29 [170/27136256] via 27.0.2.10, 00:25:50,
Serial0/3/0
D EX 27.0.1.248/29 [170/27136256] via 27.0.2.10, 00:25:50,
Serial0/3/0
D EX 27.0.2.0/29 [170/27136256] via 27.0.2.10, 00:25:50,
Serial0/3/0
C 27.0.2.8/30 is directly connected, Serial0/3/0
D 27.0.2.12/30 [90/2681856] via 27.0.2.10, 00:34:05,
Serial0/3/0
D 27.0.2.16/30 [90/2681856] via 27.0.2.10, 00:34:05,
Serial0/3/0
D 27.0.2.20/30 [90/3193856] via 27.0.2.10, 00:34:05,
Serial0/3/0
D EX 27.0.2.24/30 [170/27136256] via 27.0.2.10, 00:26:05,
Serial0/3/0
D EX 27.0.2.28/30 [170/27136256] via 27.0.2.10, 00:25:50,
Serial0/3/0
D EX 27.0.2.32/30 [170/27136256] via 27.0.2.10, 00:25:50,
Serial0/3/0
Kamisha#
```

Ctrl+F6 to exit CLI focus

Copy Paste

Router1

Physical Config CLI Attributes

IOS Command Line Interface

```
27.0.0.0/8 is variably subnetted, 15 subnets, 7 masks
C 27.0.0.0/24 is directly connected, FastEthernet0/0
D 27.0.1.0/25 [90/2172416] via 27.0.2.9, 00:34:38, Serial0/3/0
D 27.0.1.128/26 [90/2172416] via 27.0.2.14, 00:33:19,
Serial0/3/1
D EX 27.0.1.192/27 [170/26624256] via 27.0.2.18, 00:26:23,
Serial0/2/0
D EX 27.0.1.224/28 [170/26624256] via 27.0.2.18, 00:26:23,
Serial0/2/0
D EX 27.0.1.240/29 [170/26624256] via 27.0.2.18, 00:26:23,
Serial0/2/0
D EX 27.0.1.248/29 [170/26624256] via 27.0.2.18, 00:26:23,
Serial0/2/0
D EX 27.0.2.0/29 [170/26624256] via 27.0.2.18, 00:26:23,
Serial0/2/0
C 27.0.2.8/30 is directly connected, Serial0/3/0
C 27.0.2.12/30 is directly connected, Serial0/3/1
C 27.0.2.16/30 is directly connected, Serial0/2/0
D 27.0.2.20/30 [90/2681856] via 27.0.2.18, 00:36:59,
Serial0/2/0
D EX 27.0.2.24/30 [170/26624256] via 27.0.2.18, 00:26:38,
Serial0/2/0
D EX 27.0.2.28/30 [170/26624256] via 27.0.2.18, 00:26:23,
Serial0/2/0
D EX 27.0.2.32/30 [170/26624256] via 27.0.2.18, 00:26:23,
Serial0/2/0
Kamisha#
Kamisha#
```

Ctrl+F6 to exit CLI focus

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PC-PT PC5

27.0.1.192/27
255.255.255.224

Time: 03:36

Scenario 0

New Delete

Toggle PDU List Window

Copper Straight-Through

Simulation

ROUTING TABLES

Cisco Packet Tracer - C:\Users\ucom\Cisco Packet Tracer 7.3.0\saves\IIA Labs\Assign02.pkt

File Edit Options View Tools Extensions Help

Router2

Physical Config CLI Attributes

IOS Command Line Interface

```
D 27.0.0.0/24 [90/2172416] via 27.0.2.13, 00:34:37, Serial0/3/0
D 27.0.1.0/25 [90/2684416] via 27.0.2.13, 00:34:37, Serial0/3/0
C 27.0.1.128/26 is directly connected, FastEthernet0/0
D EX 27.0.1.192/27 [170/27136256] via 27.0.2.13, 00:27:17,
Serial0/3/0
D EX 27.0.1.224/28 [170/27136256] via 27.0.2.13, 00:27:17,
Serial0/3/0
D EX 27.0.1.240/29 [170/27136256] via 27.0.2.13, 00:27:17,
Serial0/3/0
D EX 27.0.1.248/29 [170/27136256] via 27.0.2.13, 00:27:17,
Serial0/3/0
D EX 27.0.2.0/29 [170/27136256] via 27.0.2.13, 00:27:17,
Serial0/3/0
D 27.0.2.8/30 [90/2681856] via 27.0.2.13, 00:34:37, Serial0/3/0
C 27.0.2.12/30 is directly connected, Serial0/3/0
D 27.0.2.16/30 [90/2681856] via 27.0.2.13, 00:34:37,
Serial0/3/0
D 27.0.2.20/30 [90/3193856] via 27.0.2.13, 00:34:37,
Serial0/3/0
D EX 27.0.2.24/30 [170/27136256] via 27.0.2.13, 00:27:32,
Serial0/3/0
D EX 27.0.2.28/30 [170/27136256] via 27.0.2.13, 00:27:17,
Serial0/3/0
D EX 27.0.2.32/30 [170/27136256] via 27.0.2.13, 00:27:17,
Serial0/3/0
Kamisha#
Kamisha#
```

Ctrl+F6 to exit CLI focus

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Router3

Physical Config CLI Attributes

IOS Command Line Interface

```
27.0.0.0/8 is variably subnetted, 15 subnets, 7 masks
D 27.0.0.0/24 [90/2172416] via 27.0.2.17, 00:37:22, Serial0/3/0
D 27.0.1.0/25 [90/2684416] via 27.0.2.17, 00:35:54, Serial0/3/0
D 27.0.1.128/26 [90/2684416] via 27.0.2.17, 00:34:35,
Serial0/3/0
D EX 27.0.1.192/27 [170/26112256] via 27.0.2.22, 00:27:39,
Serial0/3/1
D EX 27.0.1.224/28 [170/26112256] via 27.0.2.22, 00:27:39,
Serial0/3/1
D EX 27.0.1.240/29 [170/26112256] via 27.0.2.22, 00:27:39,
Serial0/3/1
D EX 27.0.1.248/29 [170/26112256] via 27.0.2.22, 00:27:39,
Serial0/3/1
D EX 27.0.2.0/29 [170/26112256] via 27.0.2.22, 00:27:39,
Serial0/3/1
D 27.0.2.8/30 [90/2681856] via 27.0.2.17, 00:37:35, Serial0/3/0
D 27.0.2.12/30 [90/2681856] via 27.0.2.17, 00:38:15,
Serial0/3/0
C 27.0.2.16/30 is directly connected, Serial0/3/0
C 27.0.2.20/30 is directly connected, Serial0/3/1
D EX 27.0.2.24/30 [170/26112256] via 27.0.2.22, 00:27:54,
Serial0/3/1
D EX 27.0.2.28/30 [170/26112256] via 27.0.2.22, 00:27:39,
Serial0/3/1
D EX 27.0.2.32/30 [170/26112256] via 27.0.2.22, 00:27:39,
Serial0/3/1
Kamisha#
```

Ctrl+F6 to exit CLI focus

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Time: 03:36

Simulation

Scenario 0

New Delete

Toggle PDU List Window

Fire Last Status Source Destination Type Color Time(sec) Periodic Num Ed

Copper Straight-Through

ROUTING TABLES

Cisco Packet Tracer - C:\Users\ucom\Cisco Packet Tracer 7.3.0\saves\IIA Labs\Assign02.pkt

File Edit Options View Tools Extensions Help

Logical Physical x: 730, y: 267

Router4

Physical Config CLI Attributes

IOS Command Line Interface

P - periodic downloaded static route

Gateway of last resort is not set

27.0.0.0/8 is variably subnetted, 15 subnets, 7 masks

```
D 27.0.0.0/24 [90/2684416] via 27.0.2.21, 00:30:02, Serial0/3/0
D 27.0.1.0/25 [90/3196416] via 27.0.2.21, 00:30:02, Serial0/3/0
D 27.0.1.128/26 [90/3196416] via 27.0.2.21, 00:30:02,
Serial0/3/0
O 27.0.1.192/27 [110/193] via 27.0.2.26, 00:29:22, Serial0/3/1
O 27.0.1.224/28 [110/193] via 27.0.2.26, 00:29:22, Serial0/3/1
O 27.0.1.240/29 [110/129] via 27.0.2.26, 00:29:22, Serial0/3/1
O 27.0.1.248/29 [110/129] via 27.0.2.26, 00:29:22, Serial0/3/1
O 27.0.2.0/29 [110/65] via 27.0.2.26, 00:29:22, Serial0/3/1
D 27.0.2.8/30 [90/3193856] via 27.0.2.21, 00:30:02, Serial0/3/0
D 27.0.2.12/30 [90/3193856] via 27.0.2.21, 00:30:02,
Serial0/3/0
D 27.0.2.16/30 [90/2681856] via 27.0.2.21, 00:30:02,
Serial0/3/0
C 27.0.2.20/30 is directly connected, Serial0/3/0
C 27.0.2.24/30 is directly connected, Serial0/3/1
O 27.0.2.28/30 [110/128] via 27.0.2.26, 00:29:22, Serial0/3/1
O 27.0.2.32/30 [110/192] via 27.0.2.26, 00:29:22, Serial0/3/1
```

Kamisha#

Ctrl+F6 to exit CLI focus

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Top

Time: 03:37:06

Realtime Simulation

Scenario 0

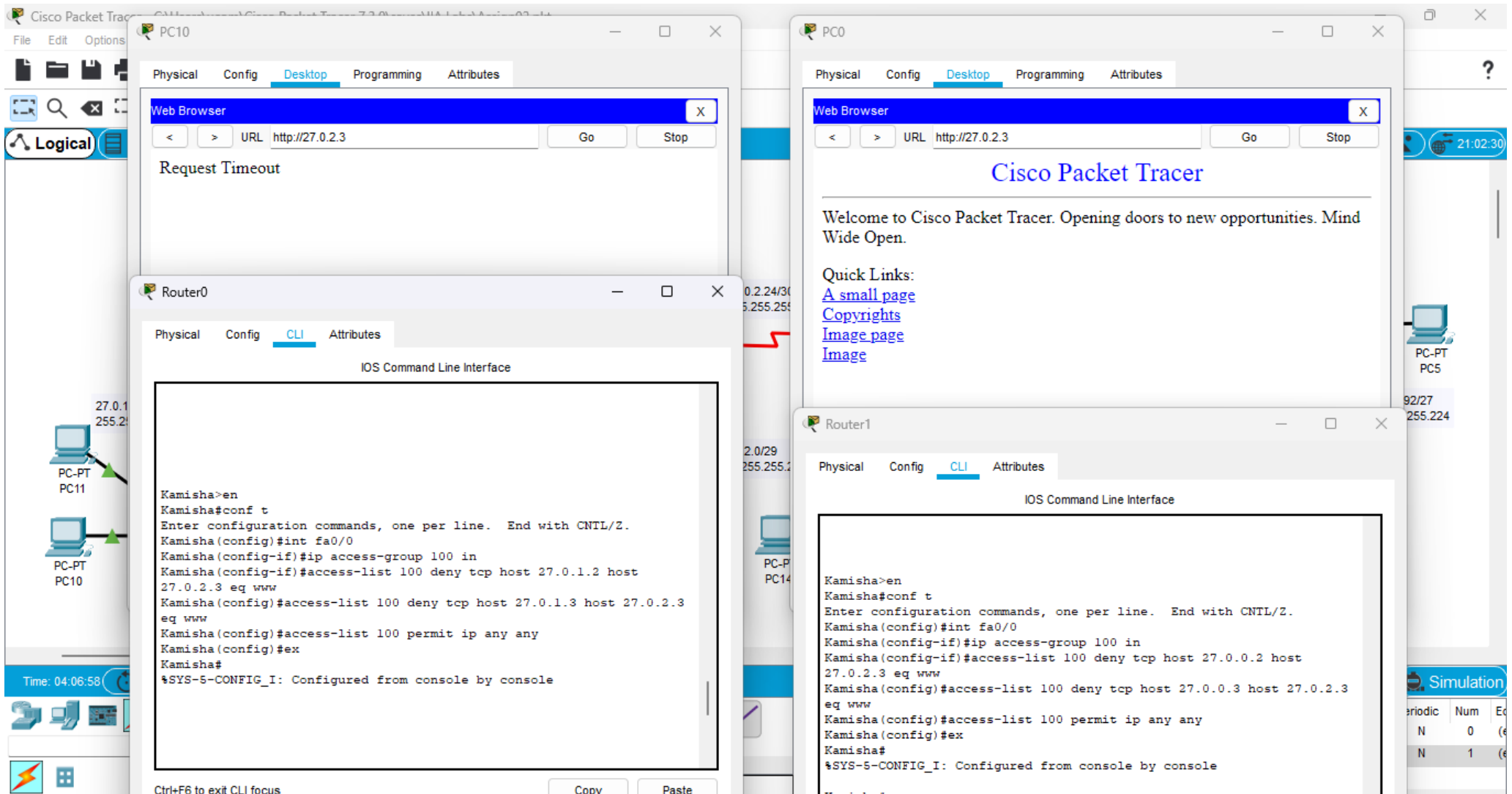
New Delete

Toggle PDU List Window

Fire Last Status Source Destination Type Color Time(sec) Periodic Num Ed

The network diagram shows a complex topology with multiple routers (Router0, Router1, Router2, Router4, Router7) and switches (Switch0, Switch2, Switch4, Switch5, Switch6). PCs are connected to these devices. The CLI window for Router4 shows a routing table with various static and dynamic routes, including a summary for 27.0.0.0/8.

ROUTE REDISTRIBUTION



ACL