

LAB TASK EIGRP

Usama Rehman

9894

Screenshots :-

The top screenshot shows a network topology in Cisco Packet Tracer. The network consists of several routers and switches connected in a mesh-like structure. The routers are labeled with IP addresses and interface names. The switches are labeled with names like Switch0, Switch1, Switch2, and Switch5. The network is configured with EIGRP, and the output of the 'show ip protocol' command is visible in the bottom right corner.

The bottom screenshot shows the same network topology, but with a CLI window open on the router Usama0. The CLI window displays the output of the 'show ip protocol' command, which shows the EIGRP configuration for the network. The output includes the following information:

```
Usama0#show ip protocol
Routing Protocol is "eigrp 9894"
  Outgoing update filter list for all interfaces is not set
  Incoming update filter list for all interfaces is not set
  Default networks flagged in outgoing updates
  Default networks accepted from incoming updates
  EIGRP metric weight K1=1, K2=0, K3=1, K4=0, K5=0
  EIGRP maximum hopcount 100
  EIGRP maximum metric variance 1
  Redistribution: eigrp 9894
  Automatic network summarization is not in effect
  Maximum path: 4
  Routing for Networks:
    20.100.0.0/29
    70.100.0.0/29
    10.100.0.0/29
  Routing Information Sources:
    Gateway         Distance      Last Update
    20.100.0.1       90            3290102
    70.100.0.2       90            3290189
    Distance: internal 90 external 170
```

Cisco Packet Tracer - C:\Users\Usama\Desktop\LAB.pkt

File Edit Options View Tools Extensions Help

Logical Physical x 961, y 77

Usama4

Physical Config CLI Attributes

IOS Command Line Interface

```

Usama#show ip protocol
Routing Protocol is "eigrp 9894"
  Outgoing update filter list for all interfaces is not set
  Incoming update filter list for all interfaces is not set
  Default networks flagged in outgoing updates
  Default networks accepted from incoming updates
  EIGRP metric weights K1=1, K2=0, K3=1, K4=0, K5=0
  EIGRP maximum hopcount 100
  EIGRP maximum metric variance 1
  Redistribution: ospf 9894
  Automatic network summarization is not in effect
  Routing Information Sources:
    Gateway         Distance
    50.100.0.1       90
    40.100.0.2       90
  Distance: internal 90 external 170
  
```

Ctrl+F6 to exit CLI focus

Copy Paste

Time: 01:02:11

Realtime Simulation

| Fire | Last Status | Source | Destination | Type | Color | Time(sec) | Periodic | Num | Edit | Delete |
|------------|-------------|--------|-------------|-------|-------|-----------|----------|----------|------|--------|
| Successful | PC2 | PC9 | ICMP | 0.000 | N | 2 | (edit) | (delete) | | |
| Successful | PC13 | PC5 | ICMP | 0.000 | N | 3 | (edit) | (delete) | | |
| Successful | PC19 | PC6 | ICMP | 0.000 | N | 4 | (edit) | (delete) | | |

Type here to search

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File Edit Options View Tools Extensions Help

Logical Physical x 961, y 149

Usama0

Physical Config CLI Attributes

IOS Command Line Interface

```

USV9-S-CONFIG_1: Configured from console by console
Usama#show ip route eigrp
  10.0.0.0/29 is subnetted, 6 subnets
    D 10.100.0.0 [90/2172416] via 20.100.0.2, 00:10:03,
      Serial10/0/0
    D 10.100.10.0 [90/2694416] via 20.100.0.2, 00:08:27,
      Serial10/0/0
    D 10.100.20.0 [90/3196416] via 20.100.0.2, 00:07:20,
      Serial10/0/0
    D 10.100.30.0 [90/3196416] via 20.100.0.2, 00:05:12,
      Serial10/0/1
    D 10.100.40.0 [90/2172416] via 30.100.0.2, 00:05:11,
      Serial10/0/1
    D 10.100.40.0/8 is variably subnetted, 2 subnets, 2 masks
    D 20.0.0.0/8 [90/4729856] via 30.100.0.2, 00:05:12,
      Serial10/0/1
    D 30.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
    D 30.0.0.0/8 [90/3193856] via 20.100.0.2, 00:10:03,
      Serial10/0/0
    D 40.0.0.0/29 is subnetted, 1 subnets
    D 40.100.0.0 [90/2691856] via 30.100.0.2, 00:02:13,
      Serial10/0/1
    D 50.0.0.0/29 is subnetted, 1 subnets
    D 50.100.0.0 [90/3193856] via 30.100.0.2, 00:03:29,
      Serial10/0/1
    D 60.0.0.0/29 is subnetted, 1 subnets
    D 60.100.0.0 [90/3193856] via 20.100.0.2, 00:08:27,
      Serial10/0/0
    D 70.0.0.0/29 is subnetted, 1 subnets
    D 70.100.0.0 [90/2691856] via 20.100.0.2, 00:10:03,
      Serial10/0/0
  
```

Ctrl+F6 to exit CLI focus

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Time: 01:04:46

Realtime Simulation

| Fire | Last Status | Source | Destination | Type | Color | Time(sec) | Periodic | Num | Edit | Delete |
|------------|-------------|--------|-------------|-------|-------|-----------|----------|----------|------|--------|
| Successful | PC2 | PC9 | ICMP | 0.000 | N | 2 | (edit) | (delete) | | |
| Successful | PC13 | PC5 | ICMP | 0.000 | N | 3 | (edit) | (delete) | | |
| Successful | PC19 | PC6 | ICMP | 0.000 | N | 4 | (edit) | (delete) | | |

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File Edit Options View Tools Extensions Help

Logical Physical x 800, y 211

Time: 01:05:00

Scenario 0

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

| Fire | Last Status | Source | Destination | Type | Color | Time(sec) | Periodic | Num | Edit | Delete |
|------------|-------------|--------|-------------|-------|-------|-----------|----------|----------|------|--------|
| Successful | PC2 | PC9 | ICMP | 0.000 | N | 2 | (edit) | (delete) | | |
| Successful | PC13 | PC5 | ICMP | 0.000 | N | 3 | (edit) | (delete) | | |
| Successful | PC19 | PC6 | ICMP | 0.000 | N | 4 | (edit) | (delete) | | |

Usama1

Physical Config CLI Attributes

IOS Command Line Interface

```

20.100.0.1 90 3200102
70.100.0.2 90 3290189
Distance: internal 90 external 170

Usama#
Usama#show ip route eigrp
 10.0.0.0/29 is subnetted, 6 subnets
D    10.100.10.0 [90/2172416] via 70.100.0.2, 00:06:40,
Serial10/0/1
D    10.100.20.0 [90/2684416] via 70.100.0.2, 00:05:32,
Serial10/0/1
D    10.100.30.0 [90/3196416] via 70.100.0.2, 00:04:41,
Serial10/0/1
    [90/3196416] via 20.100.0.1, 00:03:24,
Serial10/0/0
D    10.100.40.0 [90/2684416] via 20.100.0.1, 00:03:24,
Serial10/0/0
D    10.100.50.0 [90/2172416] via 20.100.0.1, 00:08:16,
Serial10/0/0
D    20.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
D    20.0.0.0/8 [90/5241856] via 70.100.0.2, 00:04:41,
Serial10/0/1
    [90/5241856] via 20.100.0.1, 00:03:24,
Serial10/0/0
D    30.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
D    30.0.0.0/8 [90/2681856] via 20.100.0.1, 00:08:16,
Serial10/0/0
D    40.0.0.0/29 is subnetted, 1 subnets
D    40.100.0.0 [90/319856] via 20.100.0.1, 00:00:28,
Serial10/0/0
D    50.0.0.0/29 is subnetted, 1 subnets
D    50.100.0.0 [90/319856] via 70.100.0.2, 00:05:32,
Serial10/0/1
D    60.0.0.0/29 is subnetted, 1 subnets
D    60.100.0.0 [90/2681856] via 70.100.0.2, 00:06:40,
Serial10/0/1
Usama#
Ctrl+F6 to exit CLI focus
  
```

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Top

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File Edit Options View Tools Extensions Help

Logical Physical x 800, y 211

Time: 01:05:41

Scenario 0

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

| Fire | Last Status | Source | Destination | Type | Color | Time(sec) | Periodic | Num | Edit | Delete |
|------------|-------------|--------|-------------|-------|-------|-----------|----------|----------|------|--------|
| Successful | PC2 | PC9 | ICMP | 0.000 | N | 2 | (edit) | (delete) | | |
| Successful | PC13 | PC5 | ICMP | 0.000 | N | 3 | (edit) | (delete) | | |
| Successful | PC19 | PC6 | ICMP | 0.000 | N | 4 | (edit) | (delete) | | |

Usama2

Physical Config CLI Attributes

IOS Command Line Interface

```

(Serial10/0/1) is resync graceful restart

Usama(config)#exit
Usama#
VSYS-5-CORF10_1: Configured from console by console

Usama#show ip route eigrp
 10.0.0.0/29 is subnetted, 6 subnets
D    10.100.0.0 [90/2172416] via 70.100.0.1, 00:09:34,
Serial10/0/0
D    10.100.20.0 [90/2172416] via 60.100.0.2, 00:08:26,
Serial10/0/1
D    10.100.30.0 [90/2684416] via 60.100.0.2, 00:07:35,
Serial10/0/1
D    10.100.40.0 [90/3196416] via 60.100.0.2, 00:06:18,
Serial10/0/1
    [90/3196416] via 70.100.0.1, 00:06:18,
Serial10/0/0
D    10.100.50.0 [90/2684416] via 70.100.0.1, 00:09:34,
Serial10/0/0
D    20.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
D    20.0.0.0/8 [90/4729856] via 60.100.0.2, 00:07:35,
Serial10/0/1
D    30.100.0.0/29 [90/319856] via 70.100.0.1, 00:09:34,
Serial10/0/0
D    40.0.0.0/29 is subnetted, 1 subnets
D    40.100.0.0 [90/319856] via 60.100.0.2, 00:07:35,
Serial10/0/1
D    50.0.0.0/29 is subnetted, 1 subnets
D    50.100.0.0 [90/2681856] via 60.100.0.2, 00:08:26,
Serial10/0/1
Usama#
Ctrl+F6 to exit CLI focus
  
```

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File Edit Options View Tools Extensions Help

Logical Physical 1: 407, 2: 202

Time: 01:06:48

Scenario 0

Realtime Simulation

Fire Log Status Source Destination Type Color Time(sec) Period Num Edit Delete

| Fire | Last Status | Source | Destination | Type | Color | Time(sec) | Period | Num | Edit | Delete |
|------------|-------------|--------|-------------|-------|-------|-----------|--------|----------|------|--------|
| Successful | PC2 | PC9 | ICMP | 0.000 | N | 2 | (edit) | (delete) | | |
| Successful | PC13 | PC5 | ICMP | 0.000 | N | 3 | (edit) | (delete) | | |
| Successful | PC19 | PC6 | ICMP | 0.000 | N | 4 | (edit) | (delete) | | |

Usama3

Physical Config CLI Attributes

IOS Command Line Interface

```
Usama3#
ASIG-5-CONFIG-1: Configured from console by console
Usama3#show ip route eigrp
Usama3#show ip route eigrp
  10.0.0.0/29 is subnetted, 6 subnets
    D   10.100.0.0 [90/2684416] via 60.100.0.1, 00:09:32,
        Serial10/0/0
    D   10.100.10.0 [90/2172416] via 60.100.0.1, 00:09:32,
        Serial10/0/0
    D   10.100.30.0 [90/2172416] via 50.100.0.2, 00:09:40,
        Serial10/0/1
    D   10.100.40.0 [90/2684416] via 50.100.0.2, 00:07:24,
        Serial10/0/1
    D   10.100.50.0 [90/3196416] via 60.100.0.1, 00:09:32,
        Serial10/0/0
    D   [90/3196416] via 50.100.0.2, 00:07:24,
        Serial10/0/1
    D   20.0.0.0/8 is variably subnetted, 3 subnets, 2 masks
    D   20.0.0.0/8 [90/4217856] via 50.100.0.2, 00:08:40,
        Serial10/0/1
    D   30.100.0.0/29 [90/3193856] via 60.100.0.1, 00:09:17,
        Serial10/0/0
    D   30.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
    D   30.0.0.0/8 [90/4217856] via 50.100.0.2, 00:07:24,
        Serial10/0/1
    D   30.100.0.0/29 [90/3193856] via 50.100.0.2, 00:07:24,
        Serial10/0/1
    D   40.0.0.0/29 is subnetted, 1 subnets
    D   40.100.0.0 [90/2681856] via 50.100.0.2, 00:08:40,
        Serial10/0/1
    D   70.0.0.0/29 is subnetted, 1 subnets
    D   70.100.0.0 [90/2681856] via 60.100.0.1, 00:07:41,
        Serial10/0/0
Usama3#
```

Ctrl+F6 to exit CLI focus

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Top

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File Edit Options View Tools Extensions Help

Logical Physical x 763, y 247

Usama4

Physical Config CLI Attributes

IOS Command Line Interface

```
Usama4#show ip route eigrp
10.0.0.0/29 is subnetted, 6 subnets
D 10.100.0.0 [90/3196416] via 50.100.0.1, 00:09:44,
Serial0/0/0
D 10.100.10.0 [90/2694416] via 40.100.0.1, 00:09:16,
Serial0/0/1
D 10.100.20.0 [90/2172416] via 50.100.0.1, 00:09:16,
Serial0/0/0
D 10.100.40.0 [90/2172416] via 40.100.0.2, 00:08:29,
Serial0/0/1
D 10.100.50.0 [90/2694416] via 40.100.0.2, 00:08:29,
Serial0/0/1
D 20.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
D 20.0.0.0/8 is a summary, 00:09:58, Null0
D 20.100.0.0/29 [90/3193856] via 40.100.0.2, 00:08:29,
Serial0/0/1
D 30.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
D 30.0.0.0/8 is a summary, 00:09:58, Null0
D 30.100.0.0/29 [90/2681856] via 40.100.0.2, 00:08:29,
Serial0/0/1
D 40.0.0.0/29 is subnetted, 1 subnet
D 40.100.0.0 [90/2681856] via 50.100.0.1, 00:07:38,
Serial0/0/1
D 60.0.0.0/29 is subnetted, 1 subnet
D 60.100.0.0 [90/3193856] via 50.100.0.1, 00:08:44,
Serial0/0/0
Usama4#
```

Ctrl+F5 to exit CLI focus

Copy Paste

Top

Time: 01:08:02

Scenario 0

New Delete

Toggle PDU List Window

| Fire | Last Status | Source | Destination | Type | Color | Time(sec) | Periodic | Num | Edit | Delete |
|------------|-------------|--------|-------------|-------|-------|-----------|----------|----------|------|--------|
| Successful | PC2 | PC9 | ICMP | 0.000 | N | 2 | (edit) | (delete) | | |
| Successful | PC13 | PC5 | ICMP | 0.000 | N | 3 | (edit) | (delete) | | |
| Successful | PC19 | PC6 | ICMP | 0.000 | N | 4 | (edit) | (delete) | | |

Type here to search

5:18 PM 2/24/2021

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File Edit Options View Tools Extensions Help

Logical Physical x 790, y 249

Usama5

Physical Config CLI Attributes

IOS Command Line Interface

```
Usama5#show ip route eigrp
10.0.0.0/29 is subnetted, 6 subnets
D 10.100.0.0 [90/2684416] via 30.100.0.1, 00:09:17,
Serial0/0/1
D 10.100.10.0 [90/3196416] via 30.100.0.1, 00:09:17,
Serial0/0/0
D 10.100.20.0 [90/2684416] via 40.100.0.1, 00:09:17,
Serial0/0/0
D 10.100.30.0 [90/2172416] via 40.100.0.1, 00:09:17,
Serial0/0/0
D 10.100.50.0 [90/2172416] via 30.100.0.1, 00:09:17,
Serial0/0/1
D 20.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
D 20.0.0.0/8 is a summary, 00:09:35, Null0
D 20.100.0.0/29 [90/2681856] via 30.100.0.1, 00:09:17,
Serial0/0/1
D 30.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
D 30.0.0.0/8 is a summary, 00:09:35, Null0
D 30.100.0.0/29 [90/3705856] via 30.100.0.1, 00:09:17,
Serial0/0/1
D 40.0.0.0/29 is subnetted, 1 subnet
D 40.100.0.0 [90/2681856] via 40.100.0.1, 00:07:38,
Serial0/0/0
D 60.0.0.0/29 is subnetted, 1 subnet
D 60.100.0.0 [90/3193856] via 40.100.0.1, 00:08:26,
Serial0/0/0
D 70.0.0.0/29 is subnetted, 1 subnet
D 70.100.0.0 [90/3193856] via 30.100.0.1, 00:09:17,
Serial0/0/1
Usama5#
```

Ctrl+F5 to exit CLI focus

Copy Paste

Top

Time: 01:08:38

Scenario 0

New Delete

Toggle PDU List Window

| Fire | Last Status | Source | Destination | Type | Color | Time(sec) | Periodic | Num | Edit | Delete |
|------------|-------------|--------|-------------|-------|-------|-----------|----------|----------|------|--------|
| Successful | PC2 | PC9 | ICMP | 0.000 | N | 2 | (edit) | (delete) | | |
| Successful | PC13 | PC5 | ICMP | 0.000 | N | 3 | (edit) | (delete) | | |
| Successful | PC19 | PC6 | ICMP | 0.000 | N | 4 | (edit) | (delete) | | |

Type here to search

5:19 PM 2/24/2021