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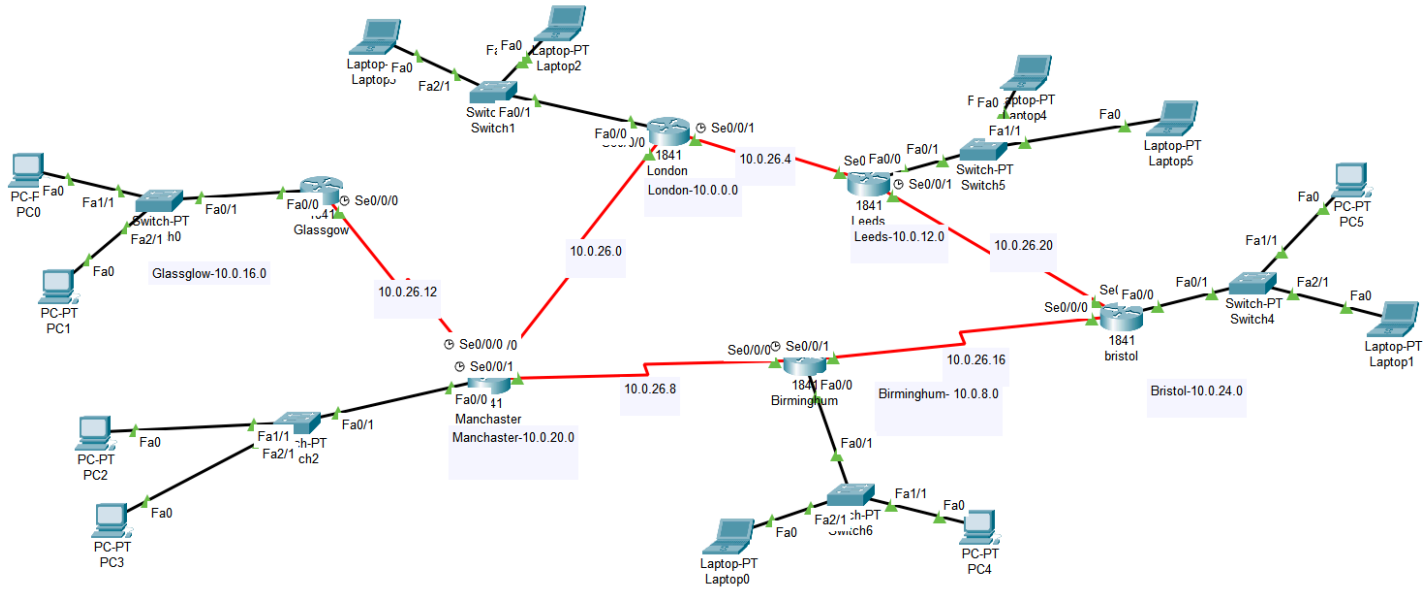
UK Inter-City Network Topology

Topology Diagram



Addressing Table

Device	Interface	IPv4 Address	Subnet Mask	Default Gateway
London	S0/0/1	10.0.26.5	255.255.255.252	N/A
	S0/0/0	10.0.26.1	255.255.255.252	N/A
	F0/0	10.0.0.1	255.255.248.0	N/A
Leeds	S0/0/1	10.0.26.6	255.255.255.252	N/A
	S0/0/0	10.0.26.21	255.255.255.252	N/A
	F0/0	10.0.12.1	255.255.252.0	N/A
Bristol	S0/0/1	10.0.26.6	255.255.255.252	N/A
	S0/0/0	10.0.26.21	255.255.255.252	N/A
	F0/0	10.0.12.1	255.255.252.0	N/A
Birmingham	S0/0/1	10.0.26.17	255.255.255.252	N/A
	S0/0/0	10.0.26.10	255.255.255.252	N/A
	F0/0	10.0.8.1	255.255.252.0	N/A

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Manchester	S0/0/1	10.0.26.9	255.255.255.252	N/A
	S0/0/0	10.0.26.2	255.255.255.252	N/A
	S0/1/0	10.0.26.13	255.255.255.252	N/A
	F0/0	10.0.20.1	255.255.252.0	N/A
Glasgow	S0/0/0	10.0.26.14	255.255.255.252	N/A
	F0/0	10.0.16.1	255.255.252.0	
PC0	NIC	10.0.16.10	255.255.252.0	10.0.16.1
PC1	NIC	10.0.16.11	255.255.252.0	10.0.16.1
PC2	NIC	10.0.20.11	255.255.252.0	10.0.20.1
PC3	NIC	10.0.20.10	255.255.252.0	10.0.20.1
PC4	NIC	10.0.8.11	255.255.252.0	10.0.8.1
PC5	NIC	10.0.24.10	255.255.255.0	10.0.24.1
Laptop0	NIC	10.0.8.10	255.255.252.0	10.0.8.1
Laptop1	NIC	10.0.24.11	255.255.255.0	10.0.24.1
Laptop2	NIC	10.0.4.11	255.255.248.0	10.0.0.1
Laptop3	NIC	10.0.4.10	255.255.248.0	10.0.0.1
Laptop4	NIC	10.0.12.10	255.255.252.0	10.0.12.1
Laptop5	NIC	10.0.12.15	255.255.252.0	10.0.12.1

Objectives

- Choose an appropriate network address and create subnets to assign to each of the branches with the least amount of waste.
- Establish connections among all the branches with the shortest route possible
- Must have at least one floating route.
- Showing 2 end devices per network is good enough to represent the whole population
- You need to be able to ping each branch from another after all the setups are complete

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Floating Route

Birmingham – London
London – Manchester
Manchester – London
Leeds – London
Bristol – Leeds

Floating Route (Birmingham – London)

```
Ip route 10.0.0.0 255.255.248.0 Se0/0/0
Ip route 10.0.0.0 255.255.248.0 Se0/0/1 89
```

Route Config

We only setup routing for a network to not directly connected network

```
Ip route network address subnetmask default gateway
```

Route Config (Glasgow)

```
Enable
Config t
Int se0/0/0
Ip add 10.0.26.14 255.255.253.252
No shut
Exit
```

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