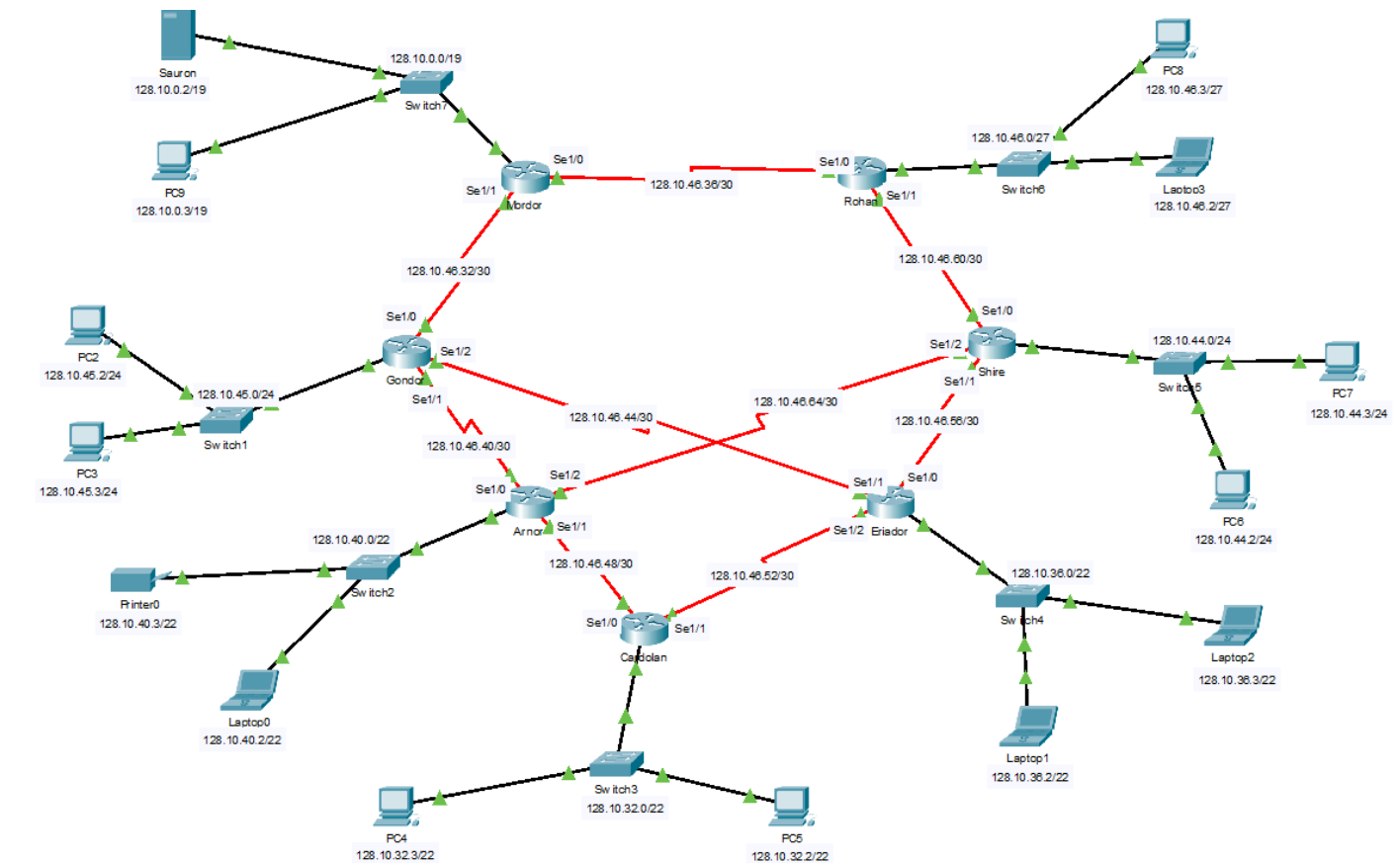CSE 421

Lab section: 5

Group ID: 13

Project No. 2 (Lord of The Rings)

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The network address 128.10.0.0/16. Our subnet needs 7980 hosts.

Name	Network Address	Slash	Subnet mask
Mordor	128.10.0.0	/19	255.255.224.0
Cardolan	128.10.32.0	/22	255.255.252.0
Eriador	128.10.36.0	/22	255.255.252.0
Arnor	128.10.40.0	/22	255.255.252.0
Shire	128.10.44.0	/24	255.255.255.0
Gondor	128.10.45.0	/24	255.255.255.0
Rohan	128.10.46.0	/27	255.255.255.224
Mordor-Gondor	128.10.46.32	/30	255.255.255.252
Mordor-Rohan	128.10.46.36	/30	255.255.255.252
Gondor-Arnor	128.10.46.40	/30	255.255.255.252
Gondor-Eriador	128.10.46.44	/30	255.255.255.252
Arnor-Cardolan	128.10.46.48	/30	255.255.255.252
Cardolan-Eriador	128.10.46.52	/30	255.255.255.252
Eriador-Shire	128.10.46.56	/30	255.255.255.252
Shire-Rohan	128.10.46.60	/30	255.255.255.252
Shire-Arnor	128.10.46.64	/30	255.255.255.252

Addressing Table:

Network Name	Port	IPv4 Address	Subnet mask
Mordor	Fa0/0	128.10.0.1	255.255.224.0
	Se1/0	128.10.46.38	255.255.255.252
	Se1/1	128.10.46.33	255.255.255.252
Cardolan	Fa0/0	128.10.32.1	255.255.252.0
	Se1/0	128.10.46.50	255.255.255.252
	Se1/1	128.10.46.54	255.255.255.252
Eriador	Fa0/0	128.10.36.1	255.255.255.0
	Se1/0	128.10.46.49	255.255.255.252
	Se1/1	128.10.46.45	255.255.255.252
	Se1/2	128.10.46.53	255.255.255.252
Arnor	Fa0/0	128.10.40.1	255.255.255.0
	Se1/0	128.10.46.41	255.255.255.252
	Se1/1	128.10.46.49	255.255.255.252
	Se1/2	128.10.46.65	255.255.255.252
Shire	Fa0/0	128.10.44.1	255.255.255.0
	Se1/0	128.10.46.62	255.255.255.252
	Se1/1	128.10.46.57	255.255.255.252
	Se1/2	128.10.46.66	255.255.255.252
Gondor	Fa0/0	128.10.45.1	255.255.255.0
	Se1/0	128.10.46.34	255.255.255.252
	Se1/1	128.10.46.42	255.255.255.252
	Se1/2	128.10.46.46	255.255.255.252
Rohan	Fa0/0	128.10.46.1	255.255.255.224
	Se1/0	128.10.46.37	255.255.255.252
	Se1/1	128.10.46.61	255.255.255.252

Device Name	IPv4 Address	Default Gateway
PC2	128.10.45.2/24	128.10.45.1
PC3	128.10.45.3/24	128.10.45.1
PC4	128.10.32.3/22	128.10.32.1
PC5	128.10.32.2/22	128.10.32.1
PC6	128.10.44.2/24	128.10.44.1
PC7	128.10.44.3/24	128.10.44.1
PC8	128.10.46.3/27	128.10.46.1
PC9	128.10.0.3/19	128.10.0.1
Laptop0	128.10.40.2/22	128.10.40.1
Laptop1	128.10.36.2/22	128.10.36.1
Laptop2	128.10.36.3/22	128.10.36.1
Laptop3	128.10.46.2/27	128.10.46.1
Printer0	128.10.40.3/22	128.10.40.1
Sauron (server)	128.10.0.2/19	128.10.0.1

Router Configuration:

Mordor:

Mordor>enable

Mordor#conf t

Mordor(config)#ip route 0.0.0.0 0.0.0.0 serial1/1

Mordor(config)#router rip

Mordor(config-router)#version 2

Mordor(config-router)#no auto-summary

Mordor(config-router)#network 128.10.0.0

Mordor(config-router)#network 128.10.46.36

Mordor(config-router)#network 128.10.46.32

Mordor(config-router)#passive-interface fa0/0

Mordor(config-router) #default-information originate

Mordor(config-router)#exit

Mordor(config)#exit

Mordor#copy run start

Cardolan:

Cardolan>en

Cardolan#conf t

Cardolan(config)#ip route 128.10.40.0 255.255.252.0 serial1/0

Cardolan(config)#ip route 128.10.45.0 255.255.255.0 serial1/0

Cardolan(config)#ip route 128.10.36.0 255.255.252.0 serial1/1

Cardolan(config)#ip route 128.10.44.0 255.255.255.0 serial1/1

Cardolan(config)#ip route 128.10.44.0 255.255.255.0 serial1/0 10

Cardolan(config)#ip route 128.10.46.56 255.255.255.252 serial1/1

Cardolan(config)#ip route 128.10.46.40 255.255.255.252 serial1/0

Cardolan(config)#ip route 128.10.46.44 255.255.255.252 serial1/0

Cardolan(config)#ip route 128.10.46.64 255.255.255.252 serial1/0

Cardolan(config)#ip route 0.0.0.0 0.0.0.0 serial1/0

Cardolan(config)#end

Eriador:

Eriador>en

Eriador#conf t

Eriador(config)#ip route 128.10.44.0 255.255.255.0 serial1/0

Eriador(config)#ip route 128.10.45.0 255.255.255.0 serial1/1

Eriador(config)#ip route 128.10.32.0 255.255.252.0 serial1/2

Eriador(config)#ip route 128.10.40.0 255.255.252.0 serial1/2

Eriador(config)#ip route 128.10.40.0 255.255.252.0 serial1/1 10

Eriador(config)#ip route 128.10.46.48 255.255.255.252 serial1/2

Eriador(config)#ip route 128.10.46.40 255.255.255.252 serial1/1

Eriador(config)#ip route 128.10.46.64 255.255.255.252 serial1/0

Eriador(config)#ip route 0.0.0.0 0.0.0.0 serial1/0

Eriador(config)#end

Arnor:

Arnor>enable

Arnor#config t

Arnor(config)#ip route 128.10.45.0 255.255.255.0 serial1/0

Arnor(config)#ip route 128.10.32.0 255.255.252.0 serial1/1

Arnor(config)#ip route 128.10.36.0 255.255.252.0 serial1/1

Arnor(config)#ip route 128.10.46.52 255.255.255.252 serial1/1

Arnor(config)#ip route 128.10.44.0 255.255.255.0 serial1/2

Arnor(config)#ip route 0.0.0.0 0.0.0.0 serial1/0

Arnor(config)#end

Shire:

Shire>en

Shire#conf t

Shire(config)#ip route 128.10.46.0 255.255.255.224 serial1/0

Shire(config)#ip route 128.10.36.0 255.255.252.0 serial1/1

Shire(config)#ip route 128.10.32.0 255.255.252.0 serial1/1

Shire(config)#ip route 128.10.0.0 255.255.224.0 serial1/0

Shire(config)#ip route 128.10.40.0 255.255.252.0 serial1/2

Shire(config)#ip route 128.10.45.0 255.255.255.0 serial1/2

Shire(config)#ip route 128.10.45.0 255.255.255.0 serial1/1 10

Shire(config)#ip route 128.10.46.44 255.255.255.252 serial1/1

Shire(config)#ip route 128.10.46.52 255.255.255.252 serial1/1

Shire(config)#ip route 128.10.46.48 255.255.255.252 serial1/2

Shire(config)#ip route 128.10.46.40 255.255.255.252 serial1/2

Shire(config)#ip route 0.0.0.0 0.0.0.0 serial1/0

Shire(config)#end

Gondor:

Gondor>enable

Gondor#conf t

Gondor(config)#ip route 128.10.40.0 255.255.252.0 serial1/1

Gondor(config)#ip route 128.10.32.0 255.255.252.0 serial1/1

Gondor(config)#ip route 128.10.32.0 255.255.252.0 serial1/2 10

Gondor(config)#ip route 128.10.36.0 255.255.252.0 serial1/2

Gondor(config)#ip route 128.10.44.0 255.255.255.0 serial1/2

Gondor(config)#ip route 128.10.46.0 255.255.255.224 serial1/0

Gondor(config)#ip route 128.10.46.36 255.255.255.252 serial1/0

Gondor(config)#ip route 128.10.0.0 255.255.224.0 serial1/0

Gondor(config)#ip route 128.10.46.48 255.255.255.252 serial1/1

Gondor(config)#ip route 128.10.46.52 255.255.255.252 serial1/2

Gondor(config)#ip route 128.10.46.56 255.255.255.252 serial1/2

Gondor(config)#ip route 128.10.46.64 255.255.255.252 serial1/1

Gondor(config)#ip route 0.0.0.0 0.0.0.0 serial1/0

Gondor(config)#end

Rohan:

Rohan>enable

Rohan#conf t

Rohan(config)#ip route 0.0.0.0 0.0.0.0 serial1/1

Rohan(config)#router rip

Rohan(config-router)#version 2

Rohan(config-router)#no auto-summary

Rohan(config-router)#network 128.10.46.0

Rohan(config-router)#network 128.10.46.60

Rohan(config-router)#network 128.10.46.36

Rohan(config-router)#passive-interface fa0/0

Rohan(config-router)#default-information originate

Rohan(config-router)#exit

Rohan(config)#exit

Rohan#copy run start