

Al-Mustaqbal Univerity

College of Science

Intelligent Medical Systems Departement

Computer Networks - 3rd Class



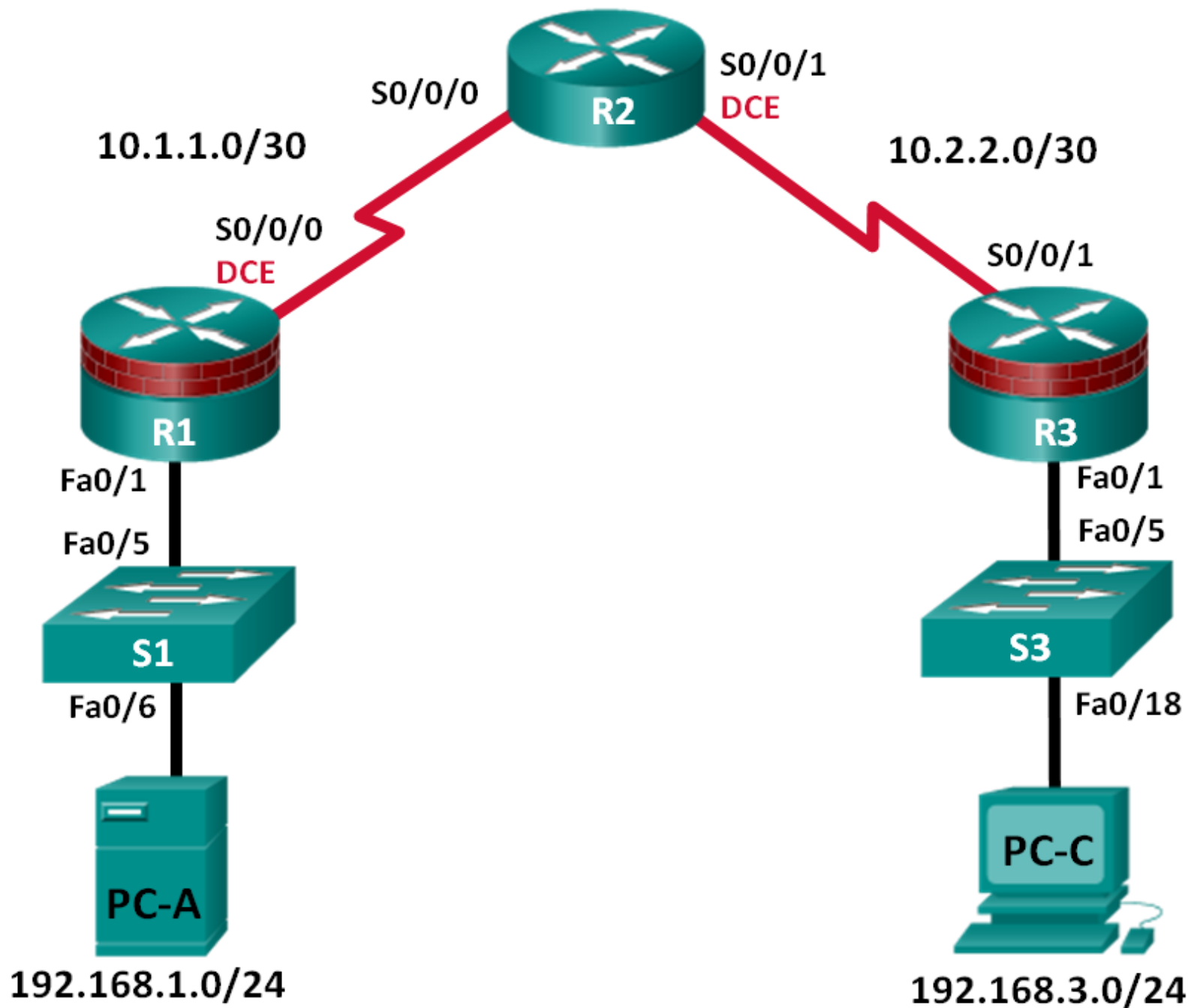
جامعة المستقبل
AL MUSTAQBAL UNIVERSITY

Lab:

Designing Routing Hierarchy

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Configure and Encrypt Passwords on Routers R1 and R3.



Device	Interface	IP Address	Subnet Mask	Default Gateway	Switch Port
R1	Fa0/1	192.168.1.1	255.255.255.0	N/A	S1 Fa0/5
	S0/0/0 (DCE)	10.1.1.1	255.255.255.252	N/A	N/A
R2	S0/0/0	10.1.1.2	255.255.255.252	N/A	N/A
	S0/0/1 (DCE)	10.2.2.2	255.255.255.252	N/A	N/A
R3	Fa0/1	192.168.3.1	255.255.255.0	N/A	S3 Fa0/5
	S0/0/1	10.2.2.1	255.255.255.252	N/A	N/A
PC-A	NIC	192.168.1.3	255.255.255.0	192.168.1.1	S1 Fa0/6
PC-C	NIC	192.168.3.3	255.255.255.0	192.168.3.1	S3 Fa0/18

Configure a minimum password length for all router passwords.

- Use the **security passwords** command to set a minimum password length of 10 characters.

R1(config)# **security passwords min-length 10**

Configure the enable secret password.

- Configure the *enable secret* encrypted password on both routers.

R1(config)# **enable secret cisco12345**

Configure basic console, auxiliary port, and virtual access lines.

- Configure a console password and enable login for routers.
- For additional security, the **exec-timeout** command causes the line to log out after 5 minutes of inactivity.
- The **logging synchronous** command prevents console messages from interrupting command entry.

- **R1(config)# line console 0**
R1(config-line)# password ciscocon
R1(config-line)# exec-timeout 5 0
R1(config-line)# login
R1(config-line)# logging synchronous

Configure a password for the AUX port for router R1.

- R1(config)# **line aux 0**
R1(config-line)# **password ciscoauxpass**
R1(config-line)# **exec-timeout 5 0**
R1(config-line)# **login**

Configure the password on the vty lines for router R1.

- R1(config)# **line vty 0 4**
R1(config-line)# **password ciscovtypass**
R1(config-line)# **exec-timeout 5 0**
R1(config-line)# **login**

Encrypt clear text passwords.

- Use the **service password-encryption** command to encrypt the console, aux, and vty passwords.

R1(config)# **service password-encryption**