1. **Console Password Configuration:**

Sw-Floor-1# **conf t**

Sw-Floor-1 (config) # **line console 0**

Sw-Floor-1 (config-line) # **password cisco**

Sw-Floor-1 (config-line) # **logi**n

Sw-Floor-1 (config-line) # **end**

Sw-Floor-1#

1. **Privileged Access or Enable Mode Password:**

Sw-Floor-1# **conf t**

Sw-Floor-1 (config) # **enable secret class**

Sw-Floor-1 (config) # **exit**

Sw-Floor-1#

1. **Remote Access through SSH/Telnet:**

Sw-Floor-1# **conf t**

Sw-Floor-1 (config) # **line vty 0 15**

Sw-Floor-1 (config-line) # **password cisco**

Sw-Floor-1 (config-line) # **login**

Sw-Floor-1 (config-line) # **end**

Sw-Floor-1#

1. **Encrypt Passwords:**

Sw-Floor-1# **conf t**

Sw-Floor-1 (config) # **service password-encryption**

Sw-Floor-1 (config) # **end**

Sw-Floor-1# **show running-config**

1. **Additional Password Security:**

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

R1 (config) # **security passwords min-length 8**

R1 (config) # **login block-for 120 attempts 3 within 60**

R1 (config) # **line vty 0 4**

R1 (config-line) # **password cisco**

R1 (config-line) # **exec-timeout 5 30**

R1 (config-line) # **transport input ssh**

R1 (config-line) # **en**d

R1# **show running-config | section line vty**

1. **Hash Function for Storing Passwords:**

(config)# **enable secret fred**

1. **Alternate Secret Password Algorithms:**

Router (config) # **enable algorithm-type { md5 | scrypt | sha256 | secret } unencrypted password**

Router (config) # **username name algorithm-type { md5 | scrypt | sha256 | secret } unencrypted password**

1. **Enhance the Login Process:**

Router (config) # **banner { motd | exec | login } delimiter message delimiter**

Router (config) # **login block-for seconds attempts try within seconds**

Router (config) # **login quiet-mode access-class {acl-name | acl-number}**

Router (config) # **login delay seconds**

Router (config) # **login on-success log [every login]**

Router (config) # **login on-failure log [every login]**

1. **Configuring SSH (Secure Shell):**

Router# **conf t**

Router (config) # **hostname R1**

R1 (config) # **ip domain name span.com**

R1 (config) # **crypto key generate rsa general-keys modulus 1024**

R1 (config) # **username Bob secret cisco**

R1 (config) # **line vty 0 4**

R1 (config-line) # **login local**

R1 (config-line) # **transport input ssh**

R1 (config-line) # **exit**

R1 (config) #

1. **Enhance SSH Login Security:**

R1# **show** **ip** **ssh**

R1 (config) # **ip ssh time-out 60**

R1 (config) # **ip ssh authentication-retries 2**

R1# **show ip ssh**

1. **Connect a Router to an SSH-Enabled Router:**

R2# **ssh -1 Bob 192.168.2.101**