

Day 4 - Basic Device Security / Commands

SW1(config)# banner motd \$"enter welcome message"\$	sets message of the day banner when entering an IOS device.
SW1(config)# enable password "password"	unencrypted password text will be applied and can be viewed in running-config.
R1(config)# service password-encryption	encrypts the current unencrypted passwords and featured inserted passwords with Type 7 encryption.
SW1(config)# enable secret "password"	encrypted password using MD5 hash. will take priority over unencrypted passwords.
R1(config)# no ip domain-lookup	disables DNS lookup from host and prevents miss-typed commands from being "translated". (CTRL+SHIFT+6)
R1(conf-line)# logging synchronous	prevents logging output from interrupting your command input.
Router(config)# line vty 0 15	select ports 0-15 for SSH/Telnet virtual line.
R1(config)# line console 0	selects the console port on the IOS device to make configuration changes.
R1(config)# login	activates a configured password that has been set for a remote connection such as Telnet or SSH.
R1(config)# login local	asks the user logging in to enter a username & password stored on the router.
R1(config)# username <i>username</i> privilege 1-15 secret <i>password</i>	STEP 1# sets up a username and password.
R1(config)# line console 0	STEP 2# sets up a username and password.
R1(config)# login local	STEP 3# sets up a username and password.
R1(config)# end	STEP 4# sets up a username and password.

SW1(config-if)# default interface <i>g0/1</i>	restores the default settings of the interface selected.
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Day 6 - Ethernet LAN Switching

SW1(config)# clear mac address-table dynamic	manually removes the MAC address from the table.
SW1(config)# clear mac address-table dynamic address <i>MAC Address</i>	deletes specific entered mac address.
SW1(config)# clear mac address-table dynamic interface <i>interface</i>	deletes all mac address on an interface.

Day 8 - IPv4 Addressing

R1(config-if)# ip address <i>192.168.1.1 255.255.255.0</i>	sets the chosen interface with an IP address and Subnet Mask
R1(config-if)# no shutdown	enables the interface
R1(config)# hostname <i>R1</i>	sets a hostname to a chosen network device.

Day 9 - Switch Interfaces

SW1(config-if)# speed <i>10,100,1000 or auto</i>	sets the chosen interface speed settings.
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Day 9 - Switch Interfaces (cont)

SW1(config)#**duplex** *half, full or auto* sets the chosen interface duplex settings.

Day 11 - Static Routing

R1(config)#**ip route** | *destination of the network's ip address* | *destination of the network's Subnet Mask* | *next hop router* sets a static configured route of the next hop address with destination and subnetmask.

R1(config)#**ip route 0.0.0.0 0.0.0.0** *next hop router* sets a default route

Day 16 - VLANs (1)

SW1(config-if)#**vlan** *vlan number* creates the VLAN.

SW1(config-vlan)**name** *name a vlan* names the VLAN.

SW1(config-if)#**switchport mode access** enables the VLAN on the selected interface.

SW1(config-if)#**switchport access vlan** *vlan number* lets the configured VLAN number to access the selected interface.

Day 17 - VLANs (2)

SW1(config-if)#**switchport mode trunk** sets the switchport to trunking mode.

SW1(config-if)#**switchport trunk encapsulation dot1q** manually sets the encapsulation protocol to IEEE 802.1Q

SW1(config-if)#**switchport trunk allowed vlan** *vlan number* adds VLANs to the configured/selected trunk

SW1(config-if)#**switchport trunk native vlan** *native vlan number* changes the default native VLAN from "1" to the configured native VLAN.

SW1#**show interfaces trunk** displays the native VLAN number and the allowed VLAN on a trunk

Day 17 - ROAS (3)

R1(config-if)#**interface** *g0/1* STEP #1- select a sub-interface.

R1(config-subif)#**encapsulation dot1q** *vlan id* STEP #2 - encapsulate the VLAN with IEEE802.1Q frames.

R1(config-subif)#**ip address** *192.168.1.62 255.255.255.192* STEP #3 - configure the sub-interface with an IP address and subnetmask.

R1#**show ip interface brief** we can view those sub-interfaces with these commands

R1#**show ip route** we can view those sub-interfaces with these commands

Day 18 - Multilayer Switch L3

MLSW1(config)#**ip routing** enables Layer 3 routing on the MLSW.

MLSW1(config-if)#**no switchport** disables L2 switchport and makes it L3 capable switchport.

Day 18 - Multilayer Switch SVI's

SW1(config-if)#**interface vlan** *vlan number** STEP 1# select a VLAN to configure an SVI on.



Day 18 - Multilayer Switch SVI's (cont)

SW1(config-if)#**ip address** 192.168.1.62 255.255.255.192

STEP 2# set the SVI with an IP address

SW1(config-if)#**no shutdown**

STEP 3# enable the SVI interface.

Day 19 - DTP

SW2(config-if)#**switchport mode**
dynamic auto/desirable

this is DTP. automatically determining if the switchport needs to be access-access or trunk-trunk.

SW2(config-if)#**switchport nonegotiate**

disables DTP. recommended to disable it for security purposes. *note: **switchport mode access** also disables DTP, since it's a manual configuration.

SW2#**show interfaces** g0/1 **switchport**

displays the following; interface name, administrative mode (desirable/auto), operational mode (trunk/access).

Day 19 - VTP

SW1(config)#**vtp domain**
domain name

changes domain name from "NULL" to a configured domain name. *note: can't delete vtp domain name. only change to a different VTP domain name or delete the .dat file on the Switch.

SW1(config)#**vtp mode**
client / server / transparent

selects one of the following VTP modes

SW1(config)#**vtp version**
version number 1,2,3

selects the version number. *note: for a server switch to share VTP advertisements and copy its VLANs and revision number and domain name to other client switches. they both need to be set to the same version number.

SW1#**show vtp status**

shows VTP version running, domain name, pruning mode, number of existing VLANs, revision number.

Day 23 - EtherChannel (PAgP / LACP / Static)

MLSW(config)#**interface po1**

#STEP 1 - creates port channel interface

MLSW(config-if)#**switchport trunk encapsulation dot1q**

#STEP 2 - sets the port channel to IEEE 802.1Q VLAN trunking standard

MLSW(config-if)#**switchport mode trunk**

#STEP 3 - sets the port channel to trunk mode

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לערוך עם פאקט טרייסר את הפקודות ^

MLSW(config)#**interface range** g0/1-5

STEP #1 - select interfaces



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Day 23 - EtherChannel (PAgP / LACP / Static) (cont)

MLSW(config)# no switchport	STEP #2 - disable L2 switchport and make switchport L3 capable.
MLSW(config)# channel-group 1,2,3 mode active / desirable / on*	STEP #3 - <i>*creates the po1 interface</i> and sets the channel group and EtherChannel Protocol.
SW1# show etherchannel summary	displays the flags (SU) (SD) (RU) etc...
SW1# show etherchannel load-balance	displays the load-balance of <i>dst-ip dst-mac-ip</i> etc...
SW1# show etherchannel port-channel	SUMMARY לא בטוח שצריך את הפקודה הזו, לבדוק כנגד
SW1# show ip interface brief	checks for <i>po1/2/3</i> interfaces to make sure they've been created..



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