

### Basic Device Configuration

Enter Privileged Exec mode	Switch> <b>enable</b>
Leave Privileged Exec mode	Switch# <b>disable</b>
Enter Global Configuration mode	Switch# <b>configure terminal</b>
Configuring a Device Name (Hostname)	Switch(config)# <b>hostname</b> NAME
Configuring a Console Port (Console)	Switch(config)# <b>line console 0</b>
Configuring a Console Password (Console)	Switch(config-line)# <b>password</b> PASSWORD
Activating password checking on the Console Port	Switch(config-line)# <b>login</b>
Activating Username/Password checking on the Console Port	Switch(config-line)# <b>login local</b>
Creating a timeout on the Console Port	Switch(config-line)# <b>exec-timeout</b> MINUTES SECONDS
Backup one level	Switch(config-line)# <b>exit</b>
Backup one level	Switch(config)# <b>exit</b>
Backup all levels	Switch# <b>CTRL + Z</b> or <b>CTRL + C</b>

### The Show Commands to Know!

Shows information about the switch and its interfaces, RAM, NVRAM, flash, IOS, etc	Switch# <b>show version</b>
Shows the current configuration file stored in DRAM.	Switch# <b>show running-config</b>
Shows the configuration file stored in NVRAM which is used when the device boots.	Switch# <b>show startup-config</b>
Shows an overview of all interfaces, their physical status, protocol status and ip address if assigned.	Switch# <b>show ip interface brief</b>
Shows any Descriptions you've configured on your individual interfaces.	Switch# <b>show interfaces description</b>
Shows the status of all interfaces like connected or not, speed, duplex, trunk or access VLAN.	Switch# <b>show interfaces status</b>

### Awesome Shortcuts

Create shortcuts for long commands	Router(config)# <b>alias exec</b> SHIP <b>show ip interface brief</b>
Configure a Banner Message that shows "everywhere"	Router(config)# <b>banner motd \$</b> THIS IS MY MESSAGE \$
Encrypt all plain-text passwords stored on the device	Router(config)# <b>service password-encryption</b>
Stop those "pop-up" messages from cutting through your CLI	Router(config)# <b>logging synchronous</b>
Save your configuration	Router# <b>wr</b> or <b>write</b> or <b>copy run star</b>

### Some Fun "Studies"

LearnCisco (Configuring a Cisco Router)	A Very Thorough Deep Dive
Lock down your Cisco Router (from the NSA?)	Hardening a Cisco Router

### Configuring a Switch Management Interface

Access a specific switch VLAN interface SVI (common VLAN 1)	Switch(config)# <b>interface VLAN #</b>
Configure a reachable IP address and Subnet Mask	Switch(config-if) <b>#ip address ADDRESS MASK</b>
Activate the Switch management interface	Switch(config-if) <b>#no shut</b>
Exit the switch VLAN interface (SVI)	Switch(config-if) <b>#exit</b>
Configure a default gateway for the switch to send upstream traffic out of the local LAN	Switch(config)# <b>ip default-gateway IP-ADDRESS-OF-UPSTREAM-ROUTER</b>

### Configuring a Router Network Interface

Locate your Router interfaces (learn their designations)	Router# <b>show ip interface brief</b>
Access Global Configuration mode	Router# <b>configure terminal</b>
Access a specific Router interface	Router(config)# <b>interface</b> gi0/0/0
Configure a reachable IP address and Subnet Mask	Router(config-if) <b>#ip address ADDRESS MASK</b>
Activate the Router interface	Router(config-if) <b>#no shut</b>



### Configuring SSH for Remote Management

Configure the device hostname	Switch(config)# <b>hostname</b> NAME
Configure the Domain Name the device will operate on	Switch(config)# <b>ip</b> <b>domain-name</b> EXAMPL- E.COM
Configure a username and password for remote management	Switch(config)# <b>username</b> admin <b>password</b> cisco
Generate encryption keys to "obfuscate" the management traffic	Switch(config)# <b>crypto key</b> <b>generate rsa</b>
Configure a minimum of 1024 bits for encryption security	How many bits in the modulus [512]: 1024
Define the SSH version to use (older versions have exploits/vulnerabilities)	Switch(config)# <b>ip ssh</b> <b>version 2</b>
Access the VTY lines (used for Telnet and SSH)	Switch(config)# <b>line vty</b> 0 4
Activate SSH on the VTY lines	Switch(config-line)# <b>transport input ssh</b>
Require a username and password combo	Switch(config-line)# <b>login</b> <b>local</b>
Save your configuration	Switch# <b>wr</b>



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