Notes

How to use this cheat sheet

In order to use the commands you *MUST* be in the mode that that command is listed under. The sections are listed in order progression. "User EXEC Mode" is the default mode and thus has no command to enter it.

Example: In order to use the `hostname` command I must be in "-Global Config Mode" so I look one section before to look up the command to enter "Global Config Mode". I then see that in order to use the `configure terminal` command I must be in "Privileged EXEC Mode" and to enter "Privileged EXEC Mode" I must use the command `enable` in "User EXEC Mode". This would give this string of commands: `enable` > `configure terminal` > `hostname <ho stn ame>`

When in doubt google

If you are asked to do something that is not on this cheat sheet google it. For example if you are asked to deny all incoming information from a IP google "How to deny incoming IP cisco packet tracer"

Command conventions

When you see a command like `ip address <ip> <su bne t>`, the `<ip>` and `<su bne t>` part mean that in order to use this command you need to substitute information into those places.

Example: If I wanted to set the IP to `192.16 8.1.1` with a subnet mask of `255.25 5.255.0` I would fully replace both the `<ip>` and `<su bne t>` sections with that information. I would end up with a command that looks like: `ip address 192.16 8.1.1 255.25 5 .255.0`

Desktops

Overview

Desktops do not have a router or switch like CLI. In order to configure settings on desktops you must click on them and then navigate to the "Desktop" tab. Here you can use the different apps to preform different operations. See below for specific operations help.

Setting an IP

Desktops (cont)

Click on the "Configure IP" desktop app. Here you can input IPv4 and IPv6 addresses as well as other networking information. When you are done you can simply exit out and it will be saved.

Navigating to a web page

Use the "Web Browser" app as you would a normal web brouser

Pinging IPs

Use the "Command Prompt" app and use the command `ping <ip>` in order to see if a host is up.

How to tell what mode you are in

User EXEC Mode	`Router>`
Privileged EXEC Mode	`Router#`
Global Config Mode	`Router (config)#`
Iterface Config Mode	`Router (confi g-if)#`
Line Config Mode	`Router (confi g-l ine)#`

Universal Commands

Exit the current mode	`exit`

User EXEC Mode Commands

Enter Privileged EXEC Mode	`enable`

Privileged EXEC Mode

Enter Global Config Mode	`configure terminal`
Save current config	`copy runnin g-c onfig startu p-c o nfig`
Save current config	`write memory`
Show running config	`show runnin g-c onfig`
List all interfaces	`show ip interface brief`

Privileged EXEC Mode (cont)

List all interface information	`show interface`
List all `show` parameters	`show ?`
List all `debug` parameters	`debug ?`

Global Config Mode

Enter Interface Config Mode	`interface <in ter fac e> <po rt>`
Enable IPv6	`ipv6 unicas t-r outing`
Set Defualt Gateway	`ip defaul t-g ateway <ga tew ay>`
Set Hostname	`hostname <ho stn ame>`
Enter Line Config Mode	`line <li ne> <st art por t> <en dpo rt>` (lines: console, vty)
Enable Secret Password	`enable secret <pa ssw ord>`
MOTD	`banner motd #<m otd >#`
Enable Password Encryption	`service passwo rd- enc ryption`
Add new user	`username <us ern ame> secret <pa ssw ord>`
Enable AAA	`aaa new-model`
Populate defualt AAA method list	`aaa authen tic ation login defualt <me tho d> dN>` (see methods below)
Populate new AAA method list	`aaa authen tic ation login <li st- nam e> <me tho d> <me tho d1> <me tho dN>` (see methods below)

Global Config Mode (cont)

Set max fails AAA	`aaa local authen tic ation maxfail <ma xfa il>`

AAA Auth Methods

`enable` - uses enable password

`krb5` - uses Kerberos 5

`krb5-t elnet` - uses Kerberos 5 Telnet protocol

`line` - uses line password

`local` - uses local username database

`local-case` - uses local username database (case-sensitive)

`none` - no authentication (don't do this)

`cache <group name>` - uses cache server group

`group radius` - uses list of all RADIUS servers

`group tacacs+` - uses list of all TACACS+ servers

Interface Config Mode

Set Static IPv4	`ip address <ip> <su bne t>`
Set Static IPv6	`ipv6 address <ip v6>`
Set IPv6 Link Local	`ipv6 address <ip v6> link-local`
Set duplex to auto	`duplex auto`

NOTE: When exiting Interface Config Mode you must issue the command `no shutdown` before `exit` if you wish for the interface to remain up.

Line Config Mode

Set password (user EXEC)	`password <pa ssw ord>`
Enable password checking at login	`login`
Enable defualt AAA list	`login authen tic ation default <me tho d1> <me tho`
Enable AAA list	`login authen tic ation <list nam e>`