

Core Modes

Mode	Syntax	Description
User	N/A	Default landing space
Privileged (from User)	{ enable }	Turn on privileged commands.
Global (from Privileged)	{ configure terminal }	Configure from the terminal.
Interface (from Global)	{ interface <in ter fac e> <#/ #> }	Select an interface to configure.
	{ interface range <in ter fac e> <#/ #-#> }	Select a range of interfaces to configure.
Line (from Global)	{ line console <#> }	Configure primary terminal line.
	{ line vty <#> <#> }	Configure virtual terminal line.

Base Configuration

Mode	Syntax	Description
Global	*{ no ip domain -lookup }	Configure no IP DNS hostname translation.
	{ hostname <na me> }	Configure system's network name.
	{ banner motd & <me ssa ge> & }	Configure a login MOTD banner.
	{ enable secret <pa ssw ord> }	Configure privileged level encrypted password.
	{ service passwo rd- enc ryption }	Encrypt system passwords.
Interface	{ ip address <ip> <su bne t> }	Configure IP address of an interface.
	{ no shutdown }	Configure interface port status up.
Line - Console	*{ logging synchr onous }	Configure synchronised message output.
	{ password <pa ssw ord> }	Configure password.
	{ login }	Enable password checking.
Line - VTY	{ password <pa ssw ord> }	Configure password.
	{ login }	Enable password checking.

* Optional or alternative command(s).

Show Commands

Device & Mode	Syntax	Description
Universal - Privileged	{ show access -lists }	Display access lists
	{ show arp }	Display ARP table.
	{ show cdp }	Display CDP info.
	{ show clock }	Display system clock.
	{ show dhcp }	Display DHCP status.
	{ show flash }	Display flash file system info.
	{ show history }	Display session command history.

Cheetos

By **Cheetos**
cheatography.com/cheetos/

Not published yet.
 Last updated 28th February, 2018.
 Page 1 of 5.

Sponsored by **ApolloPad.com**
 Everyone has a novel in them. Finish
 Yours!
<https://apollopadd.com>

Show Commands (cont)

	{ show interfaces }	Display interface status and config.
	{ show ip interface brief }	Display brief summary of IP status and config.
	{ show ip dhcp <...> }	Display items in the DHCP database.
	{ show logging }	Display the contents of logging buffers.
	{ show port-security interface <interface> <#> }	Display port security config.
	{ show running-config }	Display running config.
	{ show sessions }	Display info about Telnet connections.
	{ show startup-config }	Display start-up config.
	{ show ssh }	Display status of SSH server connections.
	{ show users }	Display info about virtual terminal lines.
	{ show version }	Display system hardware and software status.
Router - Privileged	{ show ip route }	Display IP routing table.
	{ show ip nat }	Display IP NAT info.
	{ show ip <bgp/ospf> <protocol> }	Display info on selected protocol.
	{ show protocols }	Display active network routing protocols.
Switch - Privileged	{ show dtp }	Display DTP info.
	{ show etherchannel }	Display etherchannel info.
	{ show mac }	Display MAC config.
	{ show mac-address-table }	Display MAC forwarding table.
	{ show vlan }	Display VTP VLAN status.
	{ show vtp }	Display VTP info.

To enable typing of privileged level commands in any mode, use { do <e.g. show command> }.

How To: Clear Device Configurations

Device & Mode	Syntax	Description
Universal - Privileged	{ erase startup-config }	Erase contents of config memory.
	{ write erase }	Erase NV memory.
Switch - Privileged	{ delete flash:vlan.dat }	Delete the VLAN database.

Cheetos

By Cheetos
cheatography.com/cheetos/

Not published yet.
Last updated 28th February, 2018.
Page 2 of 5.

Sponsored by [ApolloPad.com](https://apollopadd.com)
Everyone has a novel in them. Finish Yours!
<https://apollopadd.com>

How To: Configure ACLs

Mode	Syntax	Description
Global	*{ access -list <#> <pe rmi t/d eny> <ip> <wc mask> }	Add an ACL entry.
	{ ip access -list <ty pe> <ac l_n ame> }	Configure named ACL.
	{ <pe rmi t/d eny> <ip> <wc mask> }	Specify packets to forward/reject.
	{ exit }	Return to Global mode.
	*{ interface <in ter fac e> <#/ #> }	
	*{ interface range <in ter fac e> <#/ #-#> }	
Interface	{ ip access -group <ac l_n ame> <in /ou t> }	Assign specified ACL to interface inbound/outbound traffic.
Line - VTY	{ line <li ne> <#> <#> }	
	{ access -class <AC L_n ame> <in /ou t> }	Assign specified ACL to line inbound/outbound traffic.
Global	{ ip access -list resequence <ac l_n ame> <st art _#> <in cre me n t_#> }	Configure ACL resequence.
	{ <en try _#> }	
* Optional or alternative command(s).		

How To: Configure Default Route

Mode	Syntax	Description
Global	{ ip route 0.0.0.0 0.0.0.0 <is p_d efa ult _ga tew ay> }	
	{ ip default t-n etwork <is p_d efa ult _ga tew ay> }	

How To: Configure DHCP

Mode	Syntax	Description
Global	{ ip dhcp exclud ed- address <low ip> <high ip> }	Configure prevent DHCP from assigning certain addresses.
	{ ip dhcp pool <pool name> }	Configure DHCP address pools.
	{ network <ip> <su bne t> }	Specify network to provide DHCP service for.
	{ default t-r outer <ga teway ip> }	Configure default router (gateway).
	{ dns-server <dns ip> }	Configure DNS servers.
	{ exit }	
{ interface <in ter fac e> <#/ #> }		
Interface	{ ip helper -ad dress <dh cp_ ser ver _ip> }	Configure DHCP relay.

The IP address range 169.254.## indicates Microsoft Automatic Private Addressing, which indicates a possible DHCP problem.

To release a DHCP assigned IP address, type { ipconfig /release } command in Windows CLI.

To renew a DHCP assigned IP address, type { ipconfig /renew } command in Windows CLI.

How To: Configure IPv6

Mode	Syntax	Description
Global	<code>{ ipv6 unicast-routing }</code>	Enable IPv6 unicast routing.
Interface	<code>{ ipv6 address <global_prefix: subnet_id:interface_id/mask> }</code>	Configure IPv6 address.

How To: Configure L3 Switching

Mode	Syntax	Description
Global	<code>{ ip routing }</code>	Enable routing on the switch.
	<code>{ interface vlan <#> }</code>	Select catalyst VLAN.
Interface	<code>{ ip address <ip> <subnet> }</code>	Configure IP address of VLAN.
	<code>{ no shutdown }</code>	Configure interface port status up.

How To: Configure NAT

--

How To: Configure Port Security

Mode	Syntax	Description
Global	<code>{ interface <interface> <#/#> }</code>	
	<code>*{ interface range <interface> <#/#-#> }</code>	
Interface	<code>{ switchport mode access }</code>	Configure interface port to access mode.
	<code>{ switchport port-security }</code>	Enable interface port security.
	<code>{ switchport port-security mac-address <?> }</code>	Configure secure mac addresses.
	<code>{ switchport port-security maximum <?> }</code>	Configure maximum secure addresses.
	<code>{ switchport port-security violation <?> }</code>	Configure security violation mode.

* Optional or alternative command(s).

How To: Configure RIPv2

Mode	Syntax	Description
Global	<code>{ router <protocol> }</code>	Configure routing protocol.
	<code>{ version <#> }</code>	Configure version.
	<code>{ network <network ip> }</code>	Specify network.
	<code>*{ no auto-summary }</code>	Disable auto-summary.

* Optional or alternative command(s).

How To: Configure ROAS

Device & Mode	Syntax	Description
Router - Global	<code>{ interface <interface> <#/#.#> }</code>	
Router - Interface	<code>{ encapsulation dot1q <vlan #> }</code>	Configure IEEE 802.1Q.
	<code>{ ip address <ip> <subnet> }</code>	Configure IP address.

Cheetos

By **Cheetos**

cheatography.com/cheetos/

Not published yet.

Last updated 28th February, 2018.

Page 4 of 5.

Sponsored by **ApolloPad.com**

Everyone has a novel in them. Finish

Yours!

<https://apollopad.com>

How To: Configure ROAS (cont)

Switch - Global	<code>{ interface <in ter fac e> <#/ #> }</code>	
Switch - Interface	<code>{ switchport trunk encaps ulation dot1q }</code>	Configure trunking characteristics. <i>(older models)</i>
	<code>{ switchport mode trunk }</code>	Configure trunking mode of the interface.
	<code>{ switchport nonego tiate }</code>	Configure disable engagement in negotiation protocol.

Good practice to correlate VLAN- and sub-interface numbers.
 The VLAN will have the first address on the sub-interface network.
 VLAN members to use sub-interface IP address as default gateway.

How To: Configure SSH

Mode	Syntax	Description
Global	<code>{ ip domain -name <do mai n> }</code>	Define default domain.
	<code>{ crypto key generate rsa }</code>	Generate RSA crypto key.
	<code>{ username <us er> secret <pa ssw ord> }</code>	Establish User Name authentication.
Line - VTY	<code>{ login local }</code>	Enable local password checking.
	<code>{ transport input <pr oto col s> }</code>	Define transport protocols for line.

How To: Configure Static Route

Mode	Syntax	Description
Global	<code>{ ip route <de sti nat ion> <su bne t> <ga tew ay> <ad _#> }</code>	Configure static route and assign AD.

How To: Configure Switch Management Interface

Mode	Syntax	Description
Global	<code>{ interface <vl an> <#> }</code>	Select native VLAN.
	<code>{ ip address <ip> <su bne t> }</code>	Configure IP address of VLAN.
	<code>{ no shutdown }</code>	Configure interface port status up.

How To: Configure VLANs

Mode	Syntax	Description
Global	<code>{ vlan <#> }</code>	Create VLAN.
	<code>{ name <na me> }</code>	Configure VLAN name.
Interface	<code>{ descri ption <de scr ipt ion> }</code>	Configure interface description.
	<code>{ switchport mode access }</code>	Configure interface port to access only one VLAN
	<code>{ switchport access vlan <#> }</code>	Allocate interface port to VLAN.
	<code>{ no shutdown }</code>	Configure interface port status up.

Good practice to correlate VLAN- and interface numbers.

Cheetos

By **Cheetos**
cheatography.com/cheetos/

Not published yet.
 Last updated 28th February, 2018.
 Page 5 of 5.

Sponsored by **ApolloPad.com**
 Everyone has a novel in them. Finish Yours!
<https://apollopad.com>