Guía de Comandos IOS

Comandos de configuración en routers Cisco ingreso al modo configuración
```
Router>enable
Routerf#configure terminal
Router(config)#_
```

Claves de acceso a modo usuario
```
Router(config)#line console 0
Router(config-line)#password Cisco
Router(config-line)#login
Router(config-line)#exit
Router(config)#line aux 0
Router(config-line)#password Cisco
Router(config-line)#login
Router(config-line)#exit
Router(config)#line vty 0 4
Router(config-line)#password Cisco
Router(config-line)#login
Router(config-line)#exit
Router(config)#_
```

Clave de acceso a modo privilegiado
```
Router#configure terminal
Router(config)#enable secret Cisco
Router(config)#_
```

Configuración de parámetros básicos
```
Router(config)#hostname Router
Router(config)#ip name-server 192.5.5.18
Router(config)#ip domain-lookup
Router(config)#banner motd #mensaje de ingreso#
Router(ccnfig}#service password-encryption
Router(config)#config-register 0x2142
Router(config)#boot config flash:2800.cfg
Router(config)#boot network tftp://172.16.14.12/2800.cfg
Router(config)#boot.system tftp://172.16.14.12/2800nm-adventr.bin
Router(config)#_
```

Parametros de acceso por consola
```
Router(config)#line console 0
Router(config-line)#exec-timeout 50
Router(config-line)#logging-synchronous
Router(config-line)#exit
Router(config)#_
```

Configuracion de una interfaz LAN Ethernet

```
Router(config)#interface fastethernet 0/0
Router(config-if)#ip address 192.5.5.1 255.255.255.0
Router(config-if)#description Gateway de la LAN de ingenieria
Router(config-if)#no shutdown
Router(config-if)#exit
Router(config)#_
```

Configuración de una interfaz LAN utilizando IPv6
```
Router(config)#ipv6 unfeast-routing
Router(config)#interface fastethernet 0/0
Router(config-if)#ipv6 address 2001:abl:32f4:1::/64 eui-64
Router(config-if)#description Gateway de la LAN de ingenieria
Router(config-if)#no shutdown
Router(config-if)#exit
Router(config)#_
```

Configuración de interfaz WAN HDLC
```
Router(config)#interface serial 0/0/0
Router(config-if)#encapsulation hdlc
Router(config-if)#ip address 201.100.11.1 255.255.255.0
Router(config-if)#description Puerto de conexion con sucursales
Router(config-if)#bandwidth 128
Router(config-if)#no shutdown
Router(config-if)#exit
Router(config)#_
```

Configuración de interfaz WAN PPP
```
Router(config)#interface serial 0/0/0
Router(config-if)#encapsulation pop
Router(config-if)#ip address 201.100.11.1 255.255.255.0
Router(config-if)#description Puerto de conexion con la red de sue
Router(config-if)#bandwidth 128
Router(config-if)#no shutdown
Router(config-if)#exit
Router(config)#_
```

Configuracion de interfaz WAN PPP con autenticacion CHAP
```
Router(config)#usernane Remote password cisco
Router(config)#interface serial 0/0/0
Router(config-if)#encapsulation ppp
Router(config-if)#ppp authentication chap
Router(config-if)#exit
Router(config)#_
Remoto#configure terminal
Remoto(config)#username Router password cisco
Remoto(config)#interface serial0/0/0
Remoto(config-if)#encapsulation ppp
```

```
Router(config-if)#exit
Router(config)#_
```

Configuracion de interfaz WAN PPP con autenticacion PAP
```
Router(config)#username Remoto password cisco
Router(config)#interface serial0/0/0
Router(config-if)#encapsulation ppp
Router(config-if)#ppp authentication pap
Router(config-if)#exit
Router(config)#_
Remoto#configure terminal
Remoto(config)#username Router password cisco
Remoto(config)#interface serial0/0/0
Remoto(config-if)#encapsulation ppp
Remoto(config-if)#ppp pap sent-username Remoto password cisco
Router(config-if)#exit
Router(config)#_
```

Configuracion de una interfaz logica
```
Router(config)#interface loopbackO
Router(config-if)#description Interfaz de
Router(config-if)#ip address 10.0.0.1 255
Router(config-if)#exit
Router(config)#_
```

Configuración de enrutamiento estático
```
Router(config)#ip route 196.17.15.0 255.255.255.0 201.100.11.2
Router(config)#ip route 207.7.68.0 255.255.255.0 serial0/0/0 130
Router(config)#ip route 0.0.0.0 0.0.0.0 serial0/0/l
Router(config)#ip default-network 200.15.17.0
```

Configuración de enrutamiento RIPv2
```
Router(config)#router rip
Router(config-router}#network 172.16 . 0.0
Router(config-router)#version 2
Router(config-router}#passive-interface fastethernet0/0
Router(config-router)#no auto-summary
Router(config-router)#distance 130
Router(config-router)#exit
Router(config)#_
```

Configuracion de enrutamiento RIPng
```
Router(config)#ipv6 unicast-routing
Router(config)#ipv6 router rip Cisco
Router(config)#interface fastethernetO/0
Router(config-if)#ipv6 rip cisco enable
Router(config-if)#exit
```

```
Router(config)#_
```

Configuración de enrutamiento EIGRP
```
Router(config)#router eigrp 20
Router(config-router)#network 1".0.0 . 0
Router(config-router)#no auto-summary
Router(config-router)#exit
Router(config)#_
```

Configuracion de enrutamiento OSPF
```
Router(config)#router ospf 2
Router(config-router)#network 172.16.0.0 0.0.255.255 area 0
Router(config-router)#exit
Router(config)#interface serial 0/0
Router(config-if)#ip ospf cost 10
Router(config-if)#ip ospf priority 255
Router(config-if)#exit
Router(config)#_
```

Configuración del servicio DHCP
```
Router(config)#service dhcp
Router(config)#ip dhcp excluded-address 172.16.1.1 172.16.1.3
Router(config)#ip dhcp pool nombre
Router(dhep-config)#network 172.16.1.0 255.255.255.0
Router(dhcp-config)#dns-server 172.16.1.3
Router(dhcp-config)#netbios-name-server 172.16.1.3
Router(dhcp-config)#default-router 172.16.1.1
Router(dhcp-config)#domain-name ccna
Router(dhcp-config)#lease 1 8 0
Router(dhcp-config)#exit
Router(config)#_
```

Configuración del servicio NAT
```
Router(config)#interface fastethernet0/0
Router(config-if)#ip nat inside
Router(config-if)#interface serial0/0
Router(config-if)#ip nat outside
Router(config-if)#exit
Router(config)#ip nat inside source static 172.16.1.2 200.15.17.12
Router(config)#ip nat pool ccna 200.15.17.13 200.15.17.20 netmask 255.255.255.0
Router(config)#access-list 1 permit 172.16.1.8 0.0.0.7
Router(config)#ip nat inside source list 1 pool ccna
Router(config)#ip nat inside source list 1 interface serial 0/0 overload
Router(config)# ip nat translation timeout 120
Router(config)#exit
Router#clear ip nat translation *
```

```
Router#_
```

Configuracion de CDP
```
Router(config)#cdp timer 100
Router(config)#cdp holdtime 200
Router(config)#cdp run
Router(config)#interface fastethernet0/0
Router(config-if)#cdp enable
Router(config-if)#^Z
Router#clear cdp counters
Router#clear cdp table
Router#_
```

Configuracion de Listas de Acceso
```
Router(config)#access-list 1 permit host 221.17.15.2
Router(config)#interface serial0/0/l
Router(config-if)#ip access-group 1 in
Router(config-if)#exit
Router(config)#_

Router(config)#access-list 102 deny tcp any host 172.16.1.3 ftp
Router(config)#interface serial0/0/l
Router(config-if)#ip access-group 102 in
Router(config-if)#exit
Router(config)#_

Router(config)#ip access-list standard ccna
Router(config-std-nacl)#permit host 221.17.15.2
Router(config-std-nacl)#exit
Router(config)#interface serial 0/1
Router(config-if)#ip access-group ccna in
Router(config-if)#exit
Router(config)#_
```

Configuración de filtros de acceso a terminales virtuales
```
Router(config)#access-list 10 permit host 172.16.10.3
Router(config)#line vty 0 4
Router(config-line)#access-class 10 in
Router(config-line)#exit
Router(config)#_
```

Configuracion de servicios Frame Relay
```
Router(config)#interface serial0/0/0
Router(config-if)#encapsulation frame-relay
Router(config-if)#frame-relay lmi-type cisco
Router(config-if)#no shutdown
Router(config-if)#exit
```

```
Router(config)#exit
Router(config)#_

Router(config)#interface serial0/0/0
Router(config-if)#encapsulation frame-relay
Router(config-if)#no shutdown
Router(config-if)#interface serial0/0/0.21 point-to-point
Router(config-subif}#ip address 172.16.21.1 255.255.255.252
Router(config-subif)#frane-reiay interface-dlci 21
Router(config-subif)#exit
Router(config)#exit
Router(config)#_

Router(config)#interface serial0/0/0
Router(config-if)#encapsulation frame-relay
Router(config-if)#no shutdown
Router(config-if)#interface serial 0.20 multipoint
Router(config-subif)#ip address 172.16.20.1 255.255.255.0
Router(config-subif}#frame-relay interface-dlci 20
Router(config-subif)#no frame-relay inverse-arp
Router(config-subif)#frame-relay map ip 172.16.20.2 20 broadcast
Router(config-subif)#exit
Router(config)#exit
Router(config)#_
```

Comandos de configuración en switches Catalyst
Configuración de parámetros IP
```
Switch (config)#interface vlanl
Switch(config-if)#ip address 172.16.5.2 255.255.255.0
Switch(config-if)#no shutdown
Switch(config-if)#exit
Switch(config)#ip default-gateway 172.16.5.1
Switch(config)#_
```

Configuración de interfaces
```
Switch(config)#interface FastEthernet0/1
Switch(config-if)#duplex full
Switch(config-if)#speed 100
Switch(config-if)#description puerto servidor 2
Switch(config-if)#exit
Switch(config)#_

Switch(config)#interface range FastEthernet0/1 - 8
Switch(config-range)#duplex full
Switch(config-range)#speed 100
Switch(config-range)#description puerto servidor 2
Switch(config-range)#exit
```

```
Switch(config)#_
```

Configuracion de STP
```
Switch(config)#spanning-tree vlan 1 priority 1
Switch(config)#_
```

Configuración de entradas estáticas en la tabla CAM
```
Switch(config)#mac-address-table static 0000.0000.0000 vlan 2
interface fastethernet0/10
Switch(config)#_
```

Configuracion de seguridad por puerto
```
Switch(config)#interface fastethernet0/9
Switch(config-if)#switchport mode access
Switch(config-if)#switchport port-security
Switch(config-if)#switchport port-security maximum 2
Switch(config-if)#switchport port-security mac-address sticky
Switch(config-if)#switchport port-security violation shutdown
Switch(config-if)#exit
Switch(config)#_
```

Configuracion de VTP
```
Switch(config)#vtp domain ccna
Switch(config)#vtp mode server
Switch(config)#vtp mode client
Switch(config)#exit
Switch#_
```

Configuracion de VLANs
```
Switch(config)#vlan 2
Switch(config-vlan)#name ccna
Switch(config-vlan)#exit
Switch(config)#interface FastEthernet0/4
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 2
Switch(config-if)#exit
Switch(config)#interface fastEthernet0/1
Switch(config-if)#switchport mode trunk
Switch(config-if)#switchport trunk encapsulation dotlq
Switch(config-if)#exit
Switch(config)#_
```

Configuracion de una interfaz de router como troncal
```
Router#configure terminal
Router(config)#interface fastethernet0/0
Router(config-if)#no shutdown
Router(config-if)#interface fastethernet0/0.1
```

```
Router(config-subif)#encapsulation dotlq 1
Router(config-subif)#ip address 172.18.1.1 255.255.255.0
Router(config-subif)#interface fastethernet 0/0.2
Router(config-subif}#encapsulation dotlq 2
Router(config-subif)#ip address 172.18.2.1 255.255.255.0
Router(config-subif)#exit
Router(config)#_
```

Comandos de monitoreo
Visualización de elementos generales del dispositivo
```
Router#show flash
Router#show version
Router#show processes cpu
Router#show processes memory
Router#show tcp brief all
```

Visualización del archivo de configuración
```
Router#show running-config
Router#show startup-config
```

Monitoreo de interfaces
```
Router#show interfaces
Router#show ip interfaces
Router#show ip interfaces brief
Router#show controllers
```

Monitoreo de PPP
```
Router#debug ppp negotiation
Router#debug ppp authentication
Router#debug ppp packet
```

Monitoreo de DHCP
```
Router#show dhcp server
Router#show dhcp lease
```

Monitoreo de NAT
```
Router#show ip nat translation
Router#show ip nat statistics
Router#debug ip nat
```

Monitoreo de enrutamiento
```
Rcuter#show ip protocols
Router#show ip route
```

Monitoreo de enrutamiento RIP
```
Router#show ip route rip
Router#show ip rip database
```

```
Router#debug ip rip
Router#debug ip rip events
```

Monitoreo de enrutamiento EIGRP
```
Router#show ip route eigrp
Router#show ip eigrp neighbors
Router#show ip eigrp topology
```

Monitoreo de enrutamiento OSPF
```
Router#show ip route ospf
Router#show ip ospf
Router#show ip ospf database
Router#show ip ospf interface
```

Monitoreo de CDP
```
Router#show cdp
Router#show cdp neighbor
Router#show cdp entry Router
Router#show cdp entry *
Router#show cdp neighbor detail
Routerffshow cdp traffic
Router#show cdp interface fastethernet0/0
```

Monitoreo de listas de acceso
```
Router#show access-lists
Router#show ip access-irsts
Router#show ip interfaces
Router#show running-config
```

Monitoreo de Frame Relay
```
Router#show frame-relay pvc
Router#show frame-relay lmi
Router#show frame-relay map
Router#debug frame-relay lmi
```

Monitoreo del switch
```
Switch#show mac-address-table
Switch#clear mac-address-table
Switch#show spanning-tree
```

Monitoreo de VLANs
```
Switch#show vtp status
Switch#show vlan
Switch#show vlan brief
Switch#show interface fastethernet0/1 switchport
```

Acceso a traves de terminal virtual

```
Router#telnet 201.100.11.1
Router#connect 201.100.11.1
Router#201.100.11.1
Router#show sessions
Router#show users
Router#Ctrl+shift+6 luego x
Router#resume #
Router#exit
Router#logout
Router#disconnect 201.100.11.1
Router#clear line #
```

Otros comandos
Comandos para crear copias de resguardo

```
Router#copy system:running-config tftp:config.txt
Router#copy running-config startup-config
Router#copy flash:c2800run-adventerprisek9-mz.124-15.T8.bin tftp
```

Borrar configuración de un switch Catalyst

```
Switch#erase startup-config
Switch#delete flash:config.text
Switch#delete flash:vlan.dat
```