

CISCO COMMANDS ABBREVIATED

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LOGGING IN

Initially in user mode:
Router1>

Go to privileged mode:
en or enable
Router1#

Go to configuration mode:
config t or config terminal
Router1(config)#

Go to interface configuration mode:
int eth0 or interface eth0
Router1(config-if)#

Go back up in levels use:
Exit or Ctl-Z or disable

SETTING CLOCK

Router1# **clock set 20:10:59 29 June 2002**

SHOW & SAVE CONFIGURATIONS

Router1# **sh run or show running or**
Router1# show running-config
Router1# **sh start or show start** or
Router1# **show startup-config**
Router1# **copy run start** or
Router1# **copy running-config startup-config**

SETTING PASSWORDS

Set enable password:
Router1(config)# **enable password password**
Set enable secret password:
Router1(config)# **enable secret password**

Remove enable password:
Router1(config)# **no enable password**
Remove enable secret password:
Router1(config)# **no enable secret**

Set Telnet or vty password:
Router1(config)# **line vty 0 4**
Router1(config-line)# **login**
Router1(config-line)# **password password**

Remove Telnet or vty password:
Router1(config)# **line vty 0 4**
Router1(config-line)# **no login**

Set console and auxiliary passwords:
Router1(config)# **line con 0**
Router1(config-line)# **login**
Router1(config-line)# **password password**
Router1(config-line)# **line aux 0**
Router1(config-line)# **login**

Router1(config-line)# **password password**

Remove console or auxiliary passwords:
Router1(config)# **line con 0**
Router1(config-line)# **no login**
Router1(config-line)# **line aux 0**
Router1(config-line)# **no login**

SETTING HOSTNAME

Router1(config)# **hostname Router1**

SETTING UP NAME RESOLUTION

To enable name resolution:
Router1# **ip domain-lookup**

To set up a host table:
Router1(config)# **ip host Router1 172.16.0.10**
Router1(config)# **ip host server1 192.168.0.2**

To remove a host from hosts table:
Router1(config)# **no ip host Router1**
Router1(config)# **no ip host server1**

To show host table:
Router1# **show hosts**

To disable name resolution:
Router1# **no ip domain-lookup**

SETTING IP ADDRESS

Router1(config)#
int eth0
Router1(config-if)#
ip address 172.16.0.1 255.255.0.0
no shutdown or no shut
description Bandwidthco Network Gateway

To remove IP Address:
Router1(config-if)# **no ip address**

SETTING UP (SERIAL DCE) INTERFACE

Router1(config)# **int s0**
Router1(config-if)#
ip address 172.16.0.1 255.255.0.0
no shut
bandwidth 56
clock rate 56000

SETTING STATIC ROUTES

Syntax:
Router1(config)# **ip route route mask next hop**

Example:
Router1(config)#
ip route 172.16.0.0 255.255.0.0 192.168.0.1

To remove static route:
Router1(config)#
no ip route 172.16.0.0 255.255.0.0 192.168.0.1

SETTING DEFAULT ROUTE

Syntax:

```
Router1(config)# ip route route mask next hop  
Router1(config)# ip classless
```

Example:

```
Router1(config)#  
ip route 0.0.0.0 0.0.0.0 172.16.0.1  
ip classless
```

To remove default route:

```
Router1(config)# no ip route route mask next hop  
Router1(config)# no ip classless  
Router1(config)#  
no ip route 0.0.0.0 0.0.0.0 172.16.0.1  
no ip classless
```

SETTING UP RIP

```
Router1(config)# router rip  
network 172.16.0.0  
network 172.17.0.0
```

To remove RIP:

```
Router1(config)# no router rip
```

VERIFY RIP

```
Router1# show ip route  
show ip protocols
```

SETTING UP IGRP

```
Router1(config)# router igrp 10  
network 172.16.0.0  
network 172.17.0.0
```

To remove IGRP:

```
Router1(config)# no router igrp
```

CDP (CISCO DISCOVERY PROT) INFORMATION

Get basic cdp information:

```
Router1# show cdp
```

Get information about neighboring interfaces:

```
Router1# show cdp int
```

Get information received from other routers:

```
Router1# show cdp entry Router1
```

Get information about all connected neighbors:

```
Router1# show cdp neighbors
```

SETTING UP ACLS

To view ACL types:

```
Router1(config)# access-list ?
```

To create a standard ACL:

```
Router1(config)#  
access-list 10 permit 192.160.1.0 0.0.0.0  
Router1(config)# int eth0  
Router1(config-if)# ip access-group 10 out
```

To create an extended ACL:

```
Router1(config)#  
access-list 110 deny tcp host 172.16.20.2 eq telnet  
Router1(config)# int eth0  
Router1(config-if)# ip access-group 110 in
```

To create a named ACL:

```
Router1(config)# ip access-list extended screen  
Router1(config ext-nacl)# deny tcp 172.16.20.0  
0.0.0.255 any eq 23  
Router1(config ext-nacl)# int eth0  
Router1(config-if)# ip access-group screen in
```

To create a reflexive ACL:

- Must be named (also extended)
- Done in pairs

Example:

```
Router1(config)#  
ip access-list extended filterout  
Router1(config ext-nacl)#  
permit tcp any any eq 22 reflect ssh-filter  
Router1(config ext-nacl)#  
ip access-list extended filterin  
evaluate ssh-filter  
Router1(config ext-nacl)# int eth0  
Router1(config-if)# ip access-group filterout out  
Router1(config-if)# ip access-group filterin in
```

To create ACL for vty and aux:

```
Router1(config)#  
access-list 1 permit 192.168.0.0 0.0.0.255  
access-list 2 deny 0.0.0.0 255.255.255.255  
Router1(config)# line vty 0 4  
Router1(config-line)# access-class 1  
Router1(config)# line aux 0  
Router1(config)# access-class 2
```

To log ACL hits use the "log" keyword:

```
Router1(config)#  
access-list 10 permit 192.160.1.0 0.0.0.0 log
```

To verify ACL:

```
Router1# show access-lists  
Router1# show ip access-lists  
Router1# show run
```

To remove a standard ACL:

```
Router1(config)# no access-list 10  
Router1(config)# int eth0  
Router1(config-if)# no ip access-group 10 out
```

REBOOT ROUTER

```
Router1# reload
```

SETTING BANNERS

Set login banner:

```
Router1(config)# banner login #  
This is a login banner  
#
```

Set MOTD banner:

Router1(config)# **banner motd #**
This is a motd banner
#

Set incoming terminal line banner:
Router1(config)# **banner incoming #**
This is a incoming terminal line banner
#

Set executive process creation banner:
Router1(config)# **banner exec #**
This is a executive process creation banner
#

Remove banners:
Router1(config)# **no banner login**
no banner motd
no banner incoming
no banner exec

TELNET

To show telnet connections:
Router1# **show sessions**

Return to router session without disconnect:
Router1# **Ctrl+Shift+6 X**

To exit a telnet session:
Router1# **exit**

SECURITY COMMANDS

Router1(config)#
service password-encryption
service linenumber
no cdp run
no service finger
no service udp-small-servers
no service tcp-small-servers
no ip source-route
no ip bootp server
no ip http server
no snmp
! run these from interface config mode
no ip direct-broadcast
no ip unreachable
! Log everything to syslog:
no logging console
logging buffered
logging 192.168.2.2
logging trap debug
logging console emergencies
! Cisco NTP information:
no ntp master
service timestamps debug datetime msec localtime
service timestamps log datetime msec localtime
show-timezone
clock timezone PST -8.
clock summer-time zone recurring
ntp source eth0
ntp update-calendar

ntp server 192.168.1.2
! Performance-related:
ip tcp path-mtu-discovery
ip tcp selective-ack

SHOW COMMANDS

To get system time:
Router1# **show clock**

To get command history:
Router1# **show history**

To show host table:
Router1# **show hosts**

To show routing table:
Router1# **show ip route**

To show routing protocols:
Router1# **show ip protocols**

To get interface statistics:
Router1# **show int or show interfaces**

To get IOS version & executable image information:
Router1# **show version**

To get or show ACLS:
Router1# **show access-lists**
Router1# **show ip access-lists**
Router1# **show run**