Cisco Router
Basic Configuration

no x.x.x.x... to remove any setting
Type ? at any point for parameter help

Hardware and software info
(Ctrl-6 to abort output)

Console or telnet

Disconnect

command prompt

exit

box>

show version

ping n.n.n.n
traceroute n.n.n.n
telnet n.n.n.n

show int eth 0
show int ser 0
show ip route
show arp
show ip ospf [int | neighbor | database]

show run
show conf
write mem
reload

clock set hh:mm:ss dd monthname yyyy

Set system clock

enable

disable

box#

show current running configuration
Show currently running configuration
show configuration which is in NVRAM
Write current configuration which is in NVRAM
Reboot the router

conf t

^Z

box(config)#

ip classless
ip subnet-zero
no ip domain-lookup
service password-encryption
☆ ip route n.n.n.n m.m.m.m g.g.g.g
enable secret
hostname name

Add static route to forwarding table: network, netmask, next hop gateway
Set the enable password (to restrict enable mode)
Set router name ("box" in this example)

box(config-if)#

config interface mode

int ser 0
int eth 0

box(config-router)#

config router mode

config interface mode

int ser 0
int eth 0

box(config-if)#

ip address n.n.n.n m.m.m.m
no shutdown
ip ospf cost 100

[ Ethernet only ]
arp timeout 300
no ip redirects
no ip proxy-arp
[ Serial only ]
ip unnumbered eth 0
cap ppp

Set interface IP address and prefix length (netmask)
Enable interface (remove "administrative shutdown")
Assign OSPF cost to this interface

box(config-router)#

☆ network n.n.n.n x.x.x.x area 0
redistribute connected subnets
redistribute static subnets
default-information originate

Speak OSPF on this network (n.n.n.n = network number, x.x.x.x is "wildmask"
which is a netmask with 0 and 1 inverted; e.g. /28 wildmask is 0.0.0.15)
Announce directly-connected networks (including those not talking OSPF)
Announce manually-inserted static routes, except default
Announce static default route

☆ Repeat command as necessary

Repeat command as necessary
login
password xxxxx

login local

username xxxxx password yyyyy

transport preferred none
escape-character 3

access-class 1-99 in.

snmp community password ro [1-99]
access-list 1-99 permit n.n.n.n x.x.x.x

ip cef  [not 2500 series]

clock timezone EST 1
ntp server x.x.x.x
logging buffered 16384 debugging
service timestamps log datetime localtime
service timestamps debug datetime localtime

Require password to access router via telnet
(alternative) Require username and password

Prevent unknown commands from being interpreted as hostnames
Use Ctrl-C as interrupt character (instead of Ctrl-6)
Restrict telnet logins using access list

Enable read-only SNMP access (optional: limit to access list)
Add entry to basic access list - source IP address and wildcard
Enable Cisco Express Forwarding - route caching and load-sharing
Set timezone/hours offset from GMT
Synchronise clock to ntp server
Allocate more logging memory
Enable “real” timestamps on log entries; otherwise you get time since last reboot. Use “show log” to view log entries.

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