

Basic Router Configuration

```

Enter configuration commands, one per line.  End with CNTL/Z.
ROUTER-HO(config)#interface GigabitEthernet0/1
ROUTER-HO(config-if)#no shutdown
ROUTER-HO(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/1, changed state to up

ROUTER-HO(config-if)#exit
ROUTER-HO(config)#interface GigabitEthernet0/0
ROUTER-HO(config-if)#no shutdown
ROUTER-HO(config-if)#
%LINK-5-CHANGED: Interface GigabitEthernet0/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/0, changed state to up
end
ROUTER-HO#
%SYS-5-CONFIG_I: Configured from console by console
show ip interf
ROUTER-HO#show ip interface brie
ROUTER-HO#show ip interface brief
Interface                IP-Address      OK? Method Status        Protocol
GigabitEthernet0/0       unassigned      YES unset  up            up
GigabitEthernet0/1       unassigned      YES unset  up            up
GigabitEthernet0/2       unassigned      YES unset  administratively down down
Vlan1                    unassigned      YES unset  administratively down down
ROUTER-HO#

```

Just as with switches, when you provision a new router, you will need to configure it to suit the exact environment and situation it is being used in.

There are however, a minimum number of things that should be configured on all routers before they are to be used in a production environment. This is referred to as "Basic Configuration".

This includes:

- Hostname
- Admin password
- Console password
- Date/time
- IP addresses

Commands

Commands should be run in Configuration Mode unless otherwise specified.

Hostname

```
hostname HO-ROUTER
```

Sets the hostname to "HO-ROUTER".

Admin password

```
enable secret Password1
```

Sets the "enable" password to "Password1". The "enable" password is required to enter Privileged Mode.

Console password

```
line console 0  
password Password1  
login
```

Sets the console password to "Password1". The console password is required when connecting to the switch via a console connection.

Date/time

```
clock set 13:10:00 10 31 2021
```

Time/date format: [hh:mm:ss] [month] [day] [year]

Setting an IP address

```
interface g0/1  
ip address 172.16.21.2 255.255.255.252
```

With routers, we can set an IP address directly on an interface/port. On a switch, we can only set an IP address on a VLAN.

Bonus Commands

In addition to the basic configuration commands, some additional useful commands:

Disable domain lookup

```
no ip domain-lookup
```

When you type an invalid keyword into the Cisco IOS command-line interface, it pauses and tries (and fails) to look up the keyword as if it were a domain name. This means if you type the wrong thing, you are punished and need to wait around 30 seconds.

Disable console logging

```
no logging console
```

Ever been in the middle of typing a long command, only to be interrupted by a log message from the switch? Disabling console logging will stop this from occurring.

Differences between routers and switches

Performing basic configuration of a router is very similar to a switch. There are however two key differences you may have noticed:

1. On a router, we don't need to initially shutdown unused ports. This is because ports on a router are shutdown by default.
2. On a router, we won't initially configure a management IP address. This is because routers have multiple IP addresses which we will enter later when we configure the interfaces.

Activities

● Activity: Configure Initial Router Settings

Download the following Packet Tracer activity. Follow the instructions and try to complete the activity.

[Configure Initial Router Settings.pka](#)

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Basic Router Configuration Quiz