

Mode

```
Switch>          User mode
Switch#         Privileged mode
Switch(config)# Global configuration mode
Switch(config-if)# Interface mode
```

Basic Switch Config

```
Switch>enable
Switch#configure terminal
Switch(config)#
Switch(config)#hostname Cisco
Cisco(config)#

```

```
Switch#copy running-config startup-config      --> SAVE CONFIG
Switch#show running-config      --> RAM
Switch#show startup-config     --> NVRAM
```

Password

```
Switch(config)#enable password cisco
Switch(config)#enable secret class
```

Password Encryption (Encrypts clear text password)

```
Switch(config)#service password-encryption
```

Setup Clock

```
Switch(config)#clock timezone PST -8           --> Timezone
Switch(config)#clock summer-time PDT recurring --> Summer Time
Switch#clock set 21:27:00 26 Aan 2012          --> Set Time
```

```
Switch#show clock
21:27:44.611 PDT Sun Aug 26 2012
```

Banner

```
switch(config)#banner motd #
*****
*****Authorized Personnel Only!*****
*****
#
```

Restting Switch Config

```
Switch#delete flash:vlan.dat
Switch#clear startup-config
Switch#reload
```

Console Password

```
Switch(config)#line console 0  
Switch(config-line)#password abc  
Switch(config-line)#login
```

Vlan Configuration

```
Switch(config)#vlan 10  
Switch(config-vlan)#name IT  
Switch(config)# vlan 100,200,300-310,400
```

Assigning Ports to VLANs

```
Switch(config)#interface fastethernet 0/1  
Switch(config-if)#switchport access vlan 10
```

```
Switch(config)#interface range fa 0/1 - 10  
Switch(config-if)#switchport access vlan 10
```

Assigning Access mode

```
Switch(config)#interface fastethernet 0/1  
Switch(config-if)#switchport mode access
```

Assigning Trunk mode

```
Switch(config)#interface fastethernet 0/1  
Switch(config-if)#switchport trunk encapsulation dot1q  
Switch(config-if)#switchport mode trunk
```

Setting IP Addresses on Router interface

```
Router(config)#interface fa 0/0  
Router(config-if)#ip address 10.1.1.1 255.255.255.0  
Router(config-if)#no shut  
Router(config-if)#exit
```

Switch Protocols

Trunking Protocol(Language)

- ISL(Inter-Switch Link - Cisco proprietary)
 - Adds 26Bytes Header & 4Bytes Trailer
- 802.1q(dot1q-IEEE Standard)
 - Adds 4Bytes tag end of Layer 2

DTP(Dynamic Trunking Protocol)-Negotiates trunking
Dynamic Desirable - on(can't turn off)
Dynamic Auto - on(can't turn off)
Trunk - on(can turn off)
-switchport nonegotiate

DTP(Dynamic Trunking Protocol)

```
Switch(config)#interface fastethernet 0/1  
Switch(config-if)#switchport mode dynamic desirable --> Active
```

CCNA

```
Switch(config)#interface fastethernet 0/1
Switch(config-if)#switchport mode dynamic auto
                                         --> Passive
```