• STP is work in Switch to avoid loop in switch's or in other words we can say the spanning Tree protocol is a network protocol that builds a loop-free logical topology for Ethernet networks.

• STP is Open Standard.

• STP works when multiple switches are used with redundant links. • By default it is enable in CISCO Switches.

1. Selecting the Root Bridge

2. Selecting the Root Port

3. Selecting Designated port and non designated port

Selecting the Root Bridge:

® The bridge with the lowest Bridge Id.

® Bridge ID = Priority + MAC address of the switch.

® And priority of all switches is 32768+1 =32769

® All switches have same priority then they will compare MAC address.

® All switches exchange information that is called as Bridge Protocol Data Units (BPDU). Switches sends BPDU every 2 sec.

® To check we will type command: sh spanning-tree

® From the all switches in the network one is elected as root bridge.

Every Network will have only one Root Bridge and all the remaining switches will be considered as Non root Bridges.

Opp to DP we will have RP or block port STP Port states

1. Listening 15 sec.

2. Learning 15 sec.

3. Blocking 20 sec.

4. Forwarding No limits

5. Disable No limits

Learnt about spanning tree protocols