Dynamic Trunking Protocol (DTP)

Dynamic Trunking Protocol (DTP) is the Cisco-proprietary protocol that actively attempts to negotiate a trunk link between two switches. Below is the **switchport modes** (or DTP modes) for easy reference:

Mode	**Function**
Dynamic Auto	Creates the trunk based on the DTP request from the neighboring switch.
Dynamic Desirable	Communicates to the neighboring switch via DTP that the interface would like to become a trunk if the neighboring switch interface is able to become a trunk.
Trunk	Automatically enables trunking regardless of the state of the neighboring switch and regardless of any DTP requests sent from the neighboring switch.
Access	Trunking is not allowed on this port regardless of the state of the neighboring switch interface and regardless of any DTP requests sent from the neighboring switch.
Nonegotiate	Prevents the interface from generating DTP frames. This command can be used only when the interface switchport mode is access or trunk. You must manually configure the neighboring interface as a trunk interface to establish a trunk link.

Below figure shows the combination of different modes

	Trunk	Access	Dynamic Auto	Dynamic Desirable
Trunk	Trunk	Limited	Trunk	Trunk
Access	Limited	Access	Access	Access
Dynamic Auto	Trunk	Access	Access	Trunk
Dynamic Desirable	Trunk	Access	Trunk	Trunk