The **Dynamic Trunking Protocol** (**DTP**) is a [proprietary networking protocol](https://en.wikipedia.org/wiki/Proprietary_networking_protocol) developed by [Cisco Systems](https://en.wikipedia.org/wiki/Cisco_Systems) for the purpose of negotiating [trunking](https://en.wikipedia.org/wiki/Trunking) on a link between two [VLAN](https://en.wikipedia.org/wiki/Virtual_LAN)-aware [switches](https://en.wikipedia.org/wiki/Network_switch), and for negotiating the type of trunking [encapsulation](https://en.wikipedia.org/wiki/Encapsulation_(networking)) to be used. It works on [Layer 2](https://en.wikipedia.org/wiki/Data_Link_Layer) of the [OSI model](https://en.wikipedia.org/wiki/OSI_model). VLAN trunks formed using DTP may utilize either [IEEE 802.1Q](https://en.wikipedia.org/wiki/IEEE_802.1Q) or [Cisco ISL](https://en.wikipedia.org/wiki/Cisco_Inter-Switch_Link) trunking protocols.[[1]](https://en.wikipedia.org/wiki/Dynamic_Trunking_Protocol#cite_note-1)

DTP should not be confused with [VTP](https://en.wikipedia.org/wiki/VLAN_Trunking_Protocol), as they serve different purposes. VTP communicates VLAN existence information between switches. DTP aids with trunk port establishment. Neither protocol transmits the data [frames](https://en.wikipedia.org/wiki/Frame_(telecommunications)) that trunks carry.



**Contents**

* [1Switch port modes](https://en.wikipedia.org/wiki/Dynamic_Trunking_Protocol#Switch_port_modes)
* [2See also](https://en.wikipedia.org/wiki/Dynamic_Trunking_Protocol#See_also)
* [3References](https://en.wikipedia.org/wiki/Dynamic_Trunking_Protocol#References)
* [4External links](https://en.wikipedia.org/wiki/Dynamic_Trunking_Protocol#External_links)

Switch port modes[[edit](https://en.wikipedia.org/w/index.php?title=Dynamic_Trunking_Protocol&action=edit&section=1)]

The following switch port mode settings exist:[[2]](https://en.wikipedia.org/wiki/Dynamic_Trunking_Protocol#cite_note-2)[[3]](https://en.wikipedia.org/wiki/Dynamic_Trunking_Protocol#cite_note-:0-3)

* ***Access*** — Puts the [Ethernet](https://en.wikipedia.org/wiki/Ethernet) port into permanent nontrunking mode and negotiates to convert the link into a nontrunk link. The Ethernet port becomes a nontrunk port even if the neighboring port does not agree to the change.
* ***Trunk*** — Puts the Ethernet port into permanent trunking mode and negotiates to convert the link into a trunk link. The port becomes a trunk port even if the neighboring port does not agree to the change.
* ***Dynamic Auto*** — Makes the Ethernet port willing to convert the link to a trunk link. The port becomes a trunk port if the neighboring port is set to trunk or *dynamic desirable* mode. This is the default mode for some switchports.
* ***Dynamic******Desirable*** — Makes the port actively attempt to convert the link to a trunk link. The port becomes a trunk port if the neighboring Ethernet port is set to trunk, *dynamic desirable* or *dynamic auto* mode.
* ***No****-****negotiate*** — Disables DTP. The port will not send out DTP frames or be affected by any incoming DTP frames. If you want to set a trunk between two switches when DTP is disabled, you must manually configure trunking using the (switchport mode trunk) command on both sides.

The configured switch port mode setting is referred to as the port's *trunking administrative mode*. The current behavior of a given port after negotiating with the neighboring port is referred to as the port's *trunking operational mode*.[[3]](https://en.wikipedia.org/wiki/Dynamic_Trunking_Protocol#cite_note-:0-3)

See also[[edit](https://en.wikipedia.org/w/index.php?title=Dynamic_Trunking_Protocol&action=edit&section=2)]

* [Virtual LAN](https://en.wikipedia.org/wiki/Virtual_LAN)
* [GARP VLAN Registration Protocol](https://en.wikipedia.org/wiki/GARP_VLAN_Registration_Protocol)
* [Shortest Path Bridging](https://en.wikipedia.org/wiki/Shortest_Path_Bridging)

References[[edit](https://en.wikipedia.org/w/index.php?title=Dynamic_Trunking_Protocol&action=edit&section=3)]

* 1. [**^**](https://en.wikipedia.org/wiki/Dynamic_Trunking_Protocol#cite_ref-1) [*"Dynamic Trunking Protocol (3.2.3) > Cisco Networking Academy's Introduction to VLANs"*](http://www.ciscopress.com/articles/article.asp?p=2181837&seqNum=8)*. www.ciscopress.com. Retrieved 2016-11-15.*
  2. [**^**](https://en.wikipedia.org/wiki/Dynamic_Trunking_Protocol#cite_ref-2) [*"Layer 2 LAN Port Configuration"*](http://www.cisco.com/c/en/us/td/docs/switches/lan/catalyst6500/ios/15-1SY/config_guide/sup2T/15_1_sy_swcg_2T/layer2.html)*.*
  3. ^ [Jump up to:***a***](https://en.wikipedia.org/wiki/Dynamic_Trunking_Protocol#cite_ref-:0_3-0) [***b***](https://en.wikipedia.org/wiki/Dynamic_Trunking_Protocol#cite_ref-:0_3-1) *Odom, Wendell (2013). CCENT/CCNA ICND1 100-101 Official Cert Guide. Pearson Education. pp. Chapter 9.*[*ISBN*](https://en.wikipedia.org/wiki/ISBN_(identifier))[*978-1587143854*](https://en.wikipedia.org/wiki/Special:BookSources/978-1587143854)*.*

External links[[edit](https://en.wikipedia.org/w/index.php?title=Dynamic_Trunking_Protocol&action=edit&section=4)]

[Disabling Dynamic Trunking Protocol (DTP)](http://packetlife.net/blog/2008/sep/30/disabling-dynamic-trunking-protocol-dtp/). Stretch, Jeremy. Retrieved 1 June 2016.