



! DHCP Snooping is a security feature on switches that acts like a firewall between your users and devices and the DHCP Server. Connected hosts are considered 'untrusted' and the DHCP Server is 'trusted'. This feature does the following when enabled on a switch:

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- ! - It will help prevent unauthorized DHCP Servers on your network
- ! - Validates DHCP messages from untrusted sources and discards invalid messages
- ! - Rate-limits DHCP traffic on trusted and untrusted sources
- ! - Maintains a database of untrusted hosts with associated leased IP addresses
- ! - The DHCP Server must be connected to the switch through trusted interfaces
- ! - DHCP requests will only be forwarded from untrusted interfaces to trusted interfaces

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! The DHCP Snooping database (aka binding) will be local on the switch and stored in memory, so it won't survive a power loss or reboot. This isn't a concern if you are only running basic DHCP Snooping; however, if you are using Snooping with advanced features, such as dynamic ARP inspection or IP source guard, then you will run into problems if the database is down. In this case, you will want a backup of the database. The easiest way of doing this is configuring DHCP Snooping to store the database on a TFTP or FTP server. However, it is unlikely that a small/mid network will be running these advanced features, so it should not be a concern and just something for you to be aware of.

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- ! - Email info@configtoolbox.com if you have any questions.

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! DHCP Snooping operates on a per-VLAN basis by default, but has no active VLAN's assigned.

! You will need to enable it on each VLAN connected to users, printers, copiers, etc.

`ip dhcp snooping vlan 1-10,50 >>>>>>` This example enables snooping on VLAN's 1-10 and 50

`ip dhcp snooping`

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! All switch ports will be untrusted by default, so you only need to configure the trusted ports.

! These will generally be all uplink trunk ports to other switches and ports connecting to your

! individual servers or ports to your server farm, such as VMware or Hyper-V. In this example, we

! will make switch port 49 trusted since a valid DHCP Server is downstream on that port.

`interface GigabitEthernet1/0/49`

`description UPLINK TRUNK TO NEIGHBOR SWITCH`

`switchport mode trunk`

`ip dhcp snooping trust`

!

!

! Here are some commands to check operation and view the DHCP database (aka binding)

`show ip dhcp snooping`

`show ip dhcp snooping binding`

Let us know if you have any questions or need config guidance.

- Config Toolbox @ <https://configtoolbox.com/contact-us>

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