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configuring traffic control. It is a handy tool for controlling bandwidth on a Linux server. It allows you to set the maximum download rate and/or maximum upload rate. In addition, it also allows you to clear the limits that you have set and can display the current status of an interface from the command line. Instead of using the CLI options, you can run it persistently as a service under systemd.

In this article, we will show how to install and use wondershaper for limiting network bandwidth on Linux systems. How to Install Wondershaper in Linux Systems First, start by installing wondershaper using your Linux distribution package manager from the default repertoires as shown.

Wondershaper is a small bash script that enables you to limit the network bandwidth in Linux. It employs the tc command line program as the backend for

\$ sudo apt install wondershaper [On **Debian/Ubuntu**] sudo yum install wondershaper [On CentOS/RHEL]

sudo dnf install wondershaper [On Fedora 22+]

Alternatively, to pull and install the latest updates, you need to clone the GitHub repository of wondershaper to your system, move into the local repository and install it using the following commands. Note that you should have the git command line tool installed:

\$ cd bin git clone https://github.com/magnific0/wondershaper.git \$ cd wondershaper sudo make install

This will help you know the interface on which you want to shape bandwidth usage, for example the wireless interface wlp1s0 which is active.

Before you start using wondershaper, you should first of all check all network interfaces attached to your machine using ifconfig or ip command.

Link encap:Ethernet HWaddr 18:67:b0:29:8c:fd enp2s0 UP BROADCAST MULTICAST MTU:1500 Metric:1

RX packets:2803 errors:0 dropped:0 overruns:0 frame:0 TX packets:2803 errors:0 dropped:0 overruns:0 carrier:0 collisions:0 txqueuelen:1

> UP BROADCAST RUNNING MULTICAST MTU:1500 Metric:1 RX packets:27217 errors:0 dropped:0 overruns:0 frame:0 TX packets:26598 errors:0 dropped:0 overruns:0 carrier:0

RX bytes:23088858 (23.0 MB) TX bytes:4817783 (4.8 MB)

aaronkilik@tecmint ~/bin/wondershaper \$ Check Network Interfaces in Linux How to Use Wondershaper to Limit Network Bandwidth in Linux To define the maximum download rate in **Kbps** for an interface, run the following command using the option -a (defines interface) and -d (defines Kbps) i.e the download rate will be set to 4Mbps. \$ wondershaper -a wlp1s0 -d 4048 To set the maximum upload rate in **Kbps** for an interface, use the $-\mathbf{u}$ option as follows. \$ wondershaper -a wlp1s0 -u 1048 You can also set download and upload at once with a single command, for instance.

\$ wondershaper -sa wlp1s0

backlog Ob Op requeues O

backlog Ob Op requeues O aaronkilik@tecmint ~ \$

aaronkilik@tecmint ~ \$ sudo wondershaper -sa wlp1s0

qdisc ingress ffff: parent ffff:fffl -----

You can also use <u>iPerf - network throughput</u> tool to test the bandwidth reduction by wondershaper, for example.

Sent 16105 bytes 135 pkt (dropped 0, overlimits 0 requeues 0)

Sent 20002 bytes 101 pkt (dropped 0, overlimits 0 requeues 0)

qdisc htb 1: root refcnt 5 r2q 10 default 20 direct packets stat 135 direct qlen 1000

Check Network Interface Status

It is also possible to run wondershaper as a service, where you define the parameters for shaping bandwidth in a config file. This enables wondershaper to start at

Under this mode, you need to set the interface, upload and download rates in the wondershaper configuration file located at /etc/conf.d/wondershaper. You can open

\$ sudo vim /etc/conf.d/wondershaper

How to Run Wondershaper Persistently Under Systemd

this file for editing using your favorite CLI editor as shown.

[wondershaper]

IFACE="wlp1s0"

USPEED="512"

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Reply

Morgan Collett ② April 9, 2019 at 4:43 pm

wondershaper [interface] [downlink] [uplink]

Kevin Penrose ① October 26, 2018 at 5:10 pm

On Ubuntu 18.04 the syntax is completely different:

Ravi Saive ① October 29, 2018 at 10:53 am

Aaron Kili

Upload rate in Kbps

\$ sudo systemctl start wondershaper

\$ sudo systemctl enable wondershaper

sudo systemctl status wondershaper

\$ sudo systemctl restart wondershaper

To stop the wondershaper service, use the following command.

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boot time and limit bandwidth usage at all times, when the system is on, as explained in the next section.

Download rate in Kbps DSPEED="4048"

\$ sudo systemctl stop wondershaper

Wondershaper is a traffic shaper for limiting network bandwidth on Linux systems. Try it out and share your thoughts with us via the feedback form below. If you

In case you alter the values of the parameters in the config file, you need to restart the wonderservice for the changes to be effected.

If you like what you are reading, please consider buying us a coffee (or 2) as a token of appreciation.

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@Kevin, Yes it is **wondershaper**, sorry for the typo, corrected in the article. Reply **Stef Bon** ② October 26, 2018 at 9:29 am Real traffic shaping is something different than this. Reply Aaron Kili O October 28, 2018 at 2:53 pm

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\$ ifconfig OR \$ ip addr aaronkilik@tecmint ~/bin/wondershaper \$ ifconfig RX packets:0 errors:0 dropped:0 overruns:0 frame:0 TX packets:0 errors:0 dropped:0 overruns:0 carrier:0 collisions:0 txqueuelen:1000 RX bytes:0 (0.0 B) TX bytes:0 (0.0 B) lo Link encap:Local Loopback inet addr:127.0.0.1 Mask:255.0.0.0 inet6 addr: ::1/128 Scope:Host UP LOOPBACK RUNNING MTU:65536 Metric:1 RX bytes:244282 (244.2 KB) TX bytes:244282 (244.2 KB) wlp1s0 Link encap:Ethernet HWaddr 18:67:b0:5b:af:f4 inet addr:192.168.43.31 Bcast:192.168.43.255 Mask:255.255.255.0 inet6 addr: fe80::dd8c:3d40:8171:8472/64 Scope:Link

collisions:0 txqueuelen:1000

\$ wondershaper -a wlp1s0 -d 4048 -u 1048 The **s** option allows you to view the current status of an interface.

You can clear the download or upload limits you have set for an interface using the -c flag. \$ wondershaper -ca wlp1s0

Define the necessary parameters as follows.

Save the file and close it. Next, start the wondershaper service for the mean time, enable it to auto-start at system boot and view its status, using the systemctl command.

For more help, see the Wondershaper Github repository: https://github.com/magnific0/wondershaper

know of any similar tools out there, you can as well mention to us in the comments – we will be grateful.

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Aaron Kili is a Linux and F.O.S.S enthusiast, an upcoming Linux SysAdmin, web developer, and currently a content creator for TecMint who loves working with computers and strongly believes in sharing knowledge.

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The article is about wondershaper, but the install commands say wondershaper. Is that a typo?

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Yes, this is true. However, the main aim of wondershaper is to simply the whole process. You can use tc, wondershaper's backend or any other tool, for comprehensive bandwidth

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