

How to use Zsync to transfer a file part in Linux

Zsync is based on rsync, another popular Linux tool to synchronize files or directories, and it's very easy to use. Most Linux distributions already have zsync available in the package repository, so it's easy to install and get started.

Downloading large files like ISO images can be an uncomfortable task. Depending on the Internet connection, sometimes these files can take a lot of time to download and consume tons of hard drive space. Then, if an updated version is needed, the user needs to redo the entire process.

There is a solution to this problem. Zsync is a file synchronization tool for Linux, allowing users to update only the parts of the file that have been changed without downloading everything from scratch.

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Use Zsync to download a part of the file in Linux

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Install Zsync

Before starting, users will need to install zsync. It is a small command line utility, so there are not too many dependencies.

Ubuntu / Debian

Both Debian and Ubuntu have the zsync package available and both have new versions of zsync. Please install zsync with Apt.

```
sudo apt install zsync
```

Fedora

Fedora does not have zsync available. Fedora's limited repository sometimes interferes with users, but you can still install and use zsync from the source page.

First, make sure you have the necessary development tools from Fedora.

```
sudo dnf group install 'Development Tools'
```

Select the current source tarball from the zsync download page (link: <http://zsync.moria.org.uk/downloads>). Unzip it into the directory you want to build zsync. Then open a terminal and change it to that folder.

```
cd ~/Downloads/zsync-0.6.2
```

From there, configure, compile and install zsync.

```
./configure make -j4 sudo make install
```

Arch Linux

Arch includes zsync in its default repository. Please install with Pacman.

```
sudo pacman -S zsync
```

OpenSUSE

Users can find the latest zsync version for all OpenSUSE versions. Please install it with the favorite package utility.

```
sudo zypper in zsync
```

Solus

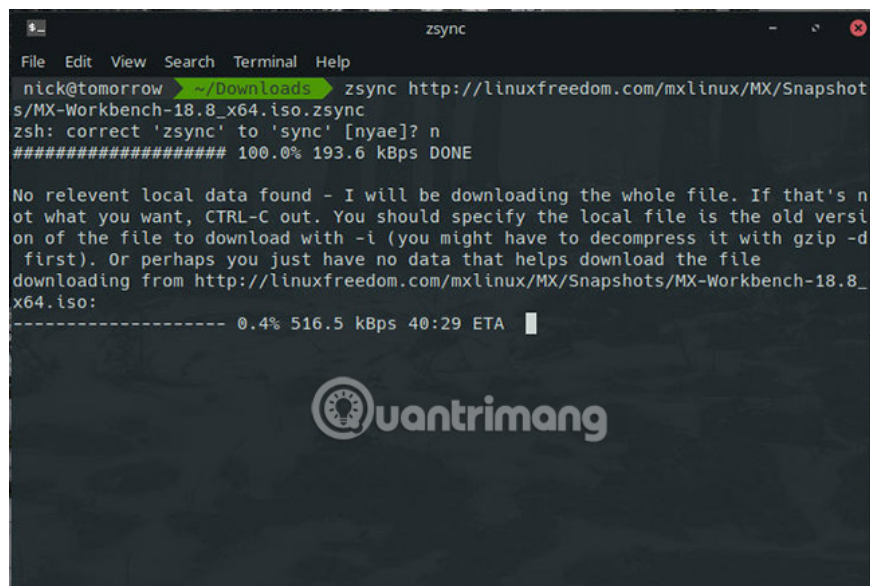
Solus also has zsync in the default repository. Please install it with the command:

```
sudo eopkg it zsync
```

Download a file

Zsync is a simple command line utility. Pass the URL of the zsync file to the file you want to download and it will have the right to operate. Start by downloading a file. MX Linux is a popular new distribution based on Debian Stable. MX Linux uses zsync for ISO images. Try using zsync to download MX Linux. If you don't really want a file that is too large, you can press **Ctrl + C** to cancel the process at any time.

```
zsync http://linuxfreedom.com/mxlinux/MX/Snapshots/MX-18_January_x64.iso.zsync
```

A terminal window titled 'zsync' showing the execution of the 'zsync' command. The user 'nick@tomorrow' is in the directory '~/Downloads'. The command is 'zsync http://linuxfreedom.com/mxlinux/MX/Snapshots/MX-Workbench-18.8_x64.iso.zsync'. The terminal shows a confirmation prompt 'zsh: correct 'zsync' to 'sync' [nyae]? n' and a progress bar indicating 100.0% completion at 193.6 kBps. A message states: 'No relevant local data found - I will be downloading the whole file. If that's not what you want, CTRL-C out. You should specify the local file is the old version of the file to download with -i (you might have to decompress it with gzip -d first). Or perhaps you just have no data that helps download the file downloading from http://linuxfreedom.com/mxlinux/MX/Snapshots/MX-Workbench-18.8_x64.iso:'. A progress bar shows 0.4% completion at 516.5 kBps with a 40:29 ETA. The 'uantrimang' logo is visible at the bottom of the terminal window.

```
nick@tomorrow ~/Downloads zsync http://linuxfreedom.com/mxlinux/MX/Snapshots/MX-Workbench-18.8_x64.iso.zsync
zsh: correct 'zsync' to 'sync' [nyae]? n
##### 100.0% 193.6 kBps DONE

No relevant local data found - I will be downloading the whole file. If that's not what you want, CTRL-C out. You should specify the local file is the old version of the file to download with -i (you might have to decompress it with gzip -d first). Or perhaps you just have no data that helps download the file
downloading from http://linuxfreedom.com/mxlinux/MX/Snapshots/MX-Workbench-18.8_x64.iso:
----- 0.4% 516.5 kBps 40:29 ETA |
```

Note that zsync starts by checking the existing file to update. If no existing file is found, it will download the entire file.

Users also have the option to download the **.zsync** file **directly** to their computer and use it to download the target. Use the **-i** flag to specify the path to the file.

```
zsync -i ~/Downloads/MX-18_January_x64.iso.zsync
```

The results are exactly the same.

Users can use the **-o** flag to make the name of the output file change. Sometimes it helps shorten the file name to make it easier.

```
zsync http://linuxfreedom.com/mxlinux/MX/Snapshots/MX-18_January_x64.iso.zsync -o
```

Again, the user receives the same file, only with a different name.

Update a file

Ubuntu also uses Zsync files for its ISOs. Users can only find them through Ubuntu's CD image server (link: <http://cdimage.ubuntu.com/>). This process is exactly the same as downloading a new file. Zsync will still start by searching for an existing file in the current directory. Only when the file is found, does it compare the differences between them and only download the updated sections. The image below shows what happens when zsync finds an existing Kubfox ISO.

