

Forum:[Hack Forums](#)

Thread: [\[GUIDE\] How To Create Exact 1:1 Linux Server Mirror \(Full Disk Clone\)](#)

techpacket - February 16, 2026, 2:47 am

If you need a 100% exact mirror (bit-by-bit clone) of a Linux server, follow this method below.

This will clone:

Source Disk (/dev/sda)

|

+-- Bootloader (GRUB)

+-- Partition Table

+-- OS

+-- Installed Packages

+-- All Files

+-- Users & Permissions

+-- Configurations

?

Target Disk (/dev/sda)

(Exact Same Structure)

? Method 1: Using dd Over SSH (Direct Disk Clone)

? Warning: The Target disk will be completely overwritten.

? Step 1: Boot Source Server into Rescue Mode (Recommended)

Do NOT clone while system is heavily active.

Best practice -> Shutdown services or use rescue/live mode.

? Step 2: Run Clone Command

From Source Server:

```
dd if=/dev/sda bs=64K status=progress | gzip -1 | ssh root@TARGET_IP "gunzip | dd of=/dev/sda bs=64K"
```

Explanation:

dd -> Reads full disk

gzip -> Compresses data (faster transfer)

ssh -> Secure transfer

dd (target) -> Writes full disk

Wait until process completes ?

? Method 2 (Safer): Using Clonezilla

Best for physical server cloning.

Steps:

1. Boot both servers using Clonezilla Live
2. Select -> device-device
3. Choose -> disk_to_local_disk
4. Select source disk
5. Select target disk
6. Start cloning

Reboot -> Done ?

? Important Notes

- ? Target disk size must be equal or larger
- ? Boot mode (UEFI / Legacy) should match
- ? After clone, change:

/etc/netplan/*

or

/etc/network/interfaces

Update:

IP Address

Hostname

SSH keys (if needed)

Also verify:

/etc/fstab

Cannot Compute - February 16, 2026, 3:00 pm

Bro just asked AI how to use dd then pasted it here ??

techpacket - February 23, 2026, 1:34 am

(Feb 16, 2026 04:00 PM)Cannot Compute Wrote: [\[CITE\]](#) Bro just asked AI how to use dd then pasted it here ??

oh bro thanx for your feedback

Pr0m3th3us - February 23, 2026, 7:08 pm

I have been wanting a full system backup of my Linux machine. I do use timeshift in case I fuck something up and need to revert (auto saves every day) but I want to clone my entire system also and back that up on a separate disk so I can install it on another computer sometime if I need to.

I use parrot security OS.

I was going to use the ISO on clonezilla and write that to my USB drive with Rufus on my windows

machine, boot from it on my linux, then just follow the instructions i guess. I want the backup to be on my storage drive that is on my linux machine though.

techpacket - February 23, 2026, 8:40 pm

(Feb 23, 2026 08:08 PM)Rust-0l3um Wrote: [\[CITE\]](#) I have been wanting a full system backup of my Linux machine. I do use timeshift in case I fuck something up and need to revert (auto saves every day) but I want to clone my entire system also and back that up on a separate disk so I can install it on another computer sometime if I need to.

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That sounds like a solid plan honestly. Using the Clonezilla ISO and booting from USB is probably the cleanest way to get a proper full disk image.

If you're saving the backup to your internal storage drive, just make sure you choose device-image mode, not device-device. In that mode you can select your system disk as the source and your storage drive partition as the destination for the image.

Before starting the clone, I'd strongly recommend running lsblk inside Clonezilla to double-check which disk is which. It's very easy to mix up drives if they're similar in size.

Also, since you're on Parrot Security OS, restoring to different hardware later should generally work fine. Linux is pretty good at adapting, but you might need to reconfigure network settings or reinstall bootloader/GRUB if the target system uses a different boot mode (UEFI vs Legacy).

Other than that, your approach makes sense. Clonezilla is a good choice for a true full system image.

Pr0m3th3us - February 23, 2026, 8:44 pm

(Feb 23, 2026 09:40 PM)techpacket Wrote: [\[CITE\]](#) That sounds like a solid plan honestly. Using the Clonezilla ISO and booting from USB is probably the cleanest way to get a proper full disk image.

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techpacket - February 23, 2026, 8:46 pm

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Haha, I respect the paranoia — lsblk has probably saved more systems than people admit ?

Running Legacy mode is totally fine if that's what worked for your Dell. Turning off Secure Boot and switching to Legacy to get Linux installed is pretty common on older locked-down machines.

Just one thing to keep in mind though:

If you ever restore that clone to a system that's using UEFI instead of Legacy, you might need to reinstall GRUB or adjust the boot mode in BIOS to match. Boot mode mismatch is usually what causes headaches — not the actual disk image.

As long as you stay consistent (Legacy -> Legacy), you should be perfectly fine.

And honestly, the fact that you're checking with lsblk every time tells me you're not going to mess anything up ?

Pr0m3th3us - February 23, 2026, 8:59 pm

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techpacket - February 23, 2026, 9:16 pm

(Feb 23, 2026 09:59 PM)Rust-0l3um Wrote: [\[CITE\]](#) Yea i figured i would have to change the BIOS settings, thats the first thing i do with any new install, windows or whatever lol. Oh and dont worry ill fuck shit up eventually. I always do. Thats why i have the backups like timeshare ???

Haha I like the mindset already ?

Honestly, that's the right attitude — if you're tweaking BIOS settings first thing and keeping proper backups, you're ahead of a lot of people.

And yeah... breaking stuff is basically part of running Linux. The difference between a disaster and a learning experience is just whether you had backups ready ?

Timeshift + a full Clonezilla image is a solid combo. One for "oops I changed something," and one for "okay I really messed this up."

You'll probably break something again — we all do — but at least now it won't cost you a weekend reinstalling everything from scratch. That's just progression in the sysadmin skill tree ?