

File-Encryption

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There are several ways to encrypt files or entire folders. However, in most cases, the same underlying methods are used.

Here, we'll introduce two tools that allow you to securely and reliably encrypt files locally on your device. If you need some help deciding:

- Cryptomator is the go-to solution when you use [Nextcloud](#) and want to [synchronize your encrypted files](#) with your group.
- VeraCrypt is the go-to solution for encrypting storage devices (e.g USB drives) and creating encrypted folders.

VeraCrypt

- [VeraCrypt](#) can either create an encrypted container (*a container is essentially just a file*) that can then be opened like a folder. Encrypted containers offer a second layer of protection but should not be considered a replacement to fully encrypting the disk.
- VeraCrypt can be used to encrypt entire storage devices (USB drives, internal and external hard drives, etc.).
- With VeraCrypt you can also fully encrypt your Windows systems, making it an open-source alternative to *BitLocker*, Windows' less secure native disk encryption software.

“ [!tip]

In our guide to VeraCrypt, you'll find step-by-step instructions for [installation](#) and the [most important features](#).

Cryptomator

- [Cryptomator](#) was primarily developed for end-to-end encryption of files in the cloud.
- Unlike VeraCrypt, Cryptomator doesn't simply create a single "file" as a volume. Instead, it divides this volume into many small parts. This enables much more efficient synchronization because the entire volume doesn't always have to be uploaded or downloaded when editing or adding files.
- Cryptomator also has a mobile app, which makes E2E-encrypted file synchronization via the cloud very easy to use. At the same time, it can also be used to easily encrypt files locally on your device.

“ [!tip]

See our instructions on [Cryptomator](#) and [syncing files](#) with Nextcloud.

Version #1

Erstellt: 2026-08-07 17:04:46 UTC von ESC-IT Migration Bot

Zuletzt aktualisiert: 2026-08-07 17:04:46 UTC von ESC-IT Migration Bot