



# Syncthing

Selfhosted File Cloud

Syncthing

# Target audience

- Agencies
  - sharing projects
- Companies
  - sharing documents/templates across different locations without administrative IT overhead
- individual persons
  - access your data on any device at any location

**Last but not least - everybody in #HomeOffice will love it !**

# Why Syncthing?

- User perspective
  - Works just like classic Windows folder sharing (aka SAMBA/CIFS) but without all the hassles
  - Works also offline
- **Private & Secure**
- Commercial Cloud File Storage sucks (Plans, Client Software, Flexibility, Centralization)
- **No server required** - it's P2P !
- **Easy to use**
- **It just works !** across NAT's without any router configuration
- **'Batteries included'** - options for almost every individual need
- **Open source**

## Syncthing : Private & Secure

- **Private** : None of your data is ever stored anywhere else other than on your computers. There is no central server that might be compromised, legally or illegally.
- **Encrypted** : All communication is secured using TLS. The encryption used includes perfect forward secrecy to prevent any eavesdropper from ever gaining access to your data.
- **Authenticated** : Every device is identified by a strong cryptographic certificate. Only devices you have explicitly allowed can connect to your other devices.



# Syncthing : Commercial Cloud File Storage sucks

- Don't worry about plans and cost :
  - since there is no server required it's just the energy consumed by your powered on clients
  - the limit is your hard disk :-)
  - To be real : as of today there is a limit of a million files per share and a **maximum file size of ~12GB** (100000\*131072 bytes)
- Don't worry about client software
  - works on almost any platform (Linux, Windows, macOS, iOS, Android, BSD, Solaris, Raspi ...)
- Don't worry about flexibility
  - works out of the box, but has options for configuring almost any scenario
  - configuration can be done using Syncthing UI

# Syncthing : No server required - it's P2P

- It's decentralized
  - Peers talk directly together
- No server needed.
  - "server like" behavior (at least on peer always-on) is built-in.
- Peers resolve others using the same technique as WebRTC and VOIP.
  - Peers within same network can "see" directly where as NAT'ed peers will use a STUN Server to resolve a way to directly connect
  - Syncthing supports also Relaying and Discovery - even using a private Relay/Discovery server.

**All these complex technologies in the background are hidden from the user.**

**Using Syncthing is as easy as Google Meet :-)**

# Syncthing : Easy to use

*Minimal footprint: a Raspberry PI is more than enough.*

1. install Syncthing on at least 2 devices
2. "peer" the Syncthing devices so that they "know" each other  
=> "you already know how it works" : you can contact another WhatsApp user only if you have added him to your contacts before, isn't it ?
3. share as many folders as you want to other peers
4. (Optional) enable Syncthing to start automatically

**That's it !**

*You will forget that it's installed after configuration - it "just works".*

# Syncthing : Batteries included

- users can share folders to other peers by themselves (DevOps style 🙌)
- dedicated sharing options (like "only read" or "only write") per peer
- use Syncthing as backup solution
  - add an additional device acting as backup peer
  - configure Syncthing on the additional device to store also file revisions
- KISS (Keep It Simple, Stupid): Syncthing just syncs files between peers
  - => Your OS already knows how to restore files locally deleted or searching files/content
- `.stignore` : ignore files to sync
  - => Works just like `.gitignore`
- Versioning Hook supported
  - => you may configure a script to backup each new file version to git for example



## Syncthing : Open source

- Source code audited by several security companies
- continuous development since 2013
- backed by a Foundation to ensure future development

# Syncthing : a personal note

- I use Syncthing since 2017 continuously to
  - sync office workspace (mostly markdown documents, images, very few git projects) with my laptop
  - share documents/photos with my family (everybody is a Syncthing peer, even my mother :-)
  - have my password manager synced between home, office and mobile device
    - KeePass is free and secure - with clients for almost any platform
  - my personal notes are always available and in sync at home laptop and office workstation  
=> **currently 2,589 files, totalling 9.5 GB**
  - backup peer using a Raspberry PI 3 (1MB RAM) with attached hard disk and Syncthing file versioning enabled
  - **haven't had a single problem since I use it**
- configured a similar solution for an architectural firm of a friend about a year ago  
=> "Best thing since sliced bread, Lars !"

**Showtime !**

**VIELEN DANK FÜR DIE  
AUFMERKSAMKEIT**

**GIBT ES NOCH FRAGEN?**