

Comparison of Cloud, Sync & Email services

There are many people out there who have decided to pursue the noble goal of a ***Techxodus***. This means:

1. **Independence**: using software that is not made or controlled by Big Tech monopolists (Google, Apple, Microsoft, Meta, Amazon), who together have almost unchecked control about people's digital lives. See also [Techxodus Wiki](#)
2. **Freedom**: only using free and open source software, i.e. software published under a copyleft or permissive license. If the developer ever becomes evil, it will be possible to fork the software. The fact that Konqueror was published under the GPL forced Apple and Google to publish the source code for their browser engines (WebKit and Blink) - thus enabling "good" forks (Brave, Ungoogled-Chromium) of "bad" software (Chrome). See also [FSF Directory](#).
3. **Privacy**: using software that respects the user's privacy. For example, a service that allows anonymous sign-up or offers end-to-end encryption of all user data. A closed source software can by definition not be trusted to respect the users privacy, because there is no way of really knowing what's going on in the background. See also [PrivacyGuides](#).
4. **Openness**: using software that relies on open standards, thereby avoiding vendor lock-in. For example, an email provider should be compatible with any email client running on any operating system.
5. **Neutrality**: using software that cannot censor information or ban users, and that is ideally developed by a politically neutral entity. For example, an end-to-end encrypted messenger can't censor messages because it can't even read the messages in the first place, and a federated messenger can't ban users because there is no central server that has control over who is using the messenger.

In some cases it's easy. For example, replace your browser with Firefox - it is free software, it can be configured to respect your privacy, and it is not made by a Big Tech company nor based on their product (i.e., Chromium). Or you can use Brave Search as your search engine - it does not track its users, and it is based on its own search index (unlike DuckDuckGo and Startpage, which mostly use the Bing and Google index, respectively).

In other cases, it's almost impossible. When it comes to mobile operating systems, there are only two options: iOS made by Apple (Big Tech, not private, not open source), and Android made by Google (Big Tech, even less private, only partially open source). Symbian or BlackBerry OS are long dead. GNU/Linux exists for phones (e.g. Sailfish OS, Ubuntu Touch, postmarketOS) but is not generally available preinstalled and lacks the most important mobile apps, and is hence not yet suitable as a daily driver for 99% of people.

In some cases there might be alternatives, but they're simply inferior. OpenStreetMaps is alright, but it can't measure up to Google Maps. LibreOffice Calc is a decent product, but can't compete with Microsoft Excel.

Here, I am looking at cloud services, which includes file sync, PIM (addressbook, calendar, to-do list), as well as email hosting (which often integrates PIM services). The Big Three - Apple, Google, and Microsoft - really offer a complete package, where the individual services are working well together and offer a very convenient cloud service to users. I have set out to see whether a Techxodus is possible, and whether there is an email + file sync + PIM provider out there that ticks all the boxes: independence from Big Tech, no vendor lock-in, free and open source software, no politics, and great privacy, ideally by means of end-to-end encryption which would make it impossible for the service provider (or anyone else, like the police) to read the user data.

[Click here to see an older version of this comparison with more information](#), up to date as of beginning 2022 but will not be updated anymore.

Use these checkboxes to filter the providers in the table below:

General:

☐ Hide Big Tech megacorps

☐ Hide proprietary (non-free) software

☐ Hide software that can't be self-hosted

File sync:

☐ Only show providers that offer a file cloud or file sync

☐ Only show providers who apply end-to-end encryption by default and offer all features (sync, editing, browser access, ...) for E2E-encrypted files

☐ Only show providers have an integration with an office suite for editing files in the browser

☐ Only show providers who offer a Linux app for file sync

☐ Only show coulds which can sync with Android (either via native app or via FolderSync)

PIM:

☐ Only show providers that offer PIM features (addressbook, calendar, to-do list)

☐ Only show providers who offer end-to-end encryption for PIM data

☐ Only show providers who offer CalDAV/CardDAV access for PIM data

Email:

☐ Only show providers who offer email








☐ Only show providers who offer zero-access encryption for emails











































☐ Only show providers who offer IMAP access for emails





























Comparison of Cloud, Sync & Email services

Source: eylenburg.github.io

Last updated: 5 July 2024

General information							File sync				Addressbook, Calendar & Tasks				Email		Pricing (single user, annual price in EUR) (prices last updated in 2022)					
Product		Developer	Jurisdiction	Software license	Offered for self-hosting?	Data encrypted at rest?	End-to-end encryption?	WebDAV (or other API)?	Edit files in browser?	Share files & folders?	Two-way sync with Desktop?	Two-way sync with Android?	End-to-end encryption?	Has all three?	CardDAV & CalDAV support?	Zero access encryption?	IMAP support?	Mail storage		File storage		Comment
																		≥5 GB	≥15 GB	≥100 GB	≥1 TB	
Apple iCloud		Apple Inc. 	 USA	Proprietary	No	Yes	<u>Yes</u> (<u>limited</u> , <u>claimed</u>)	No	<u>Yes</u> (Apple iWork)	<u>Yes</u>	No Linux support	No	No	Yes	Yes	No	Yes	free (5 GB)	€12 (50 GB)	€36 (200 GB)	€120 (2 TB)	Can be shared with up to 6 people
Aurora Files		Afterlogic Corp.	 USA	Free	Yes	Yes	<u>Yes</u> (<u>limited</u>)	WebDAV (not for E2EE files)	<u>Yes</u> (<u>Only Office</u>)	Yes	macoS & Linux via 3rd party apps	via 3rd party apps										Self-hosted cost: either hardware upfront costs (~€50 for RaspPi + ~€50 for 1 TB HDD) or ~€60 p.a. for cheap VPS (e.g. 1 TB at AlphaVPS)
Baikal (self-hosted)		fruux GmbH	 Germany	Free	Yes	depends on setup							No	Yes	Yes							Self-hosted cost: either hardware upfront costs (~€50 for RaspPi) or ~€12 p.a. for cheap VPS

Product		Developer	Jurisdiction	Software license	Offered for self-hosting?	Data encrypted at rest?	File sync						Addressbook, Calendar & Tasks				Email		Pricing (single user, annual price in EUR) (prices last updated in 2022)			
							End-to-end encryption?	WebDAV (or other API)?	Edit files in browser?	Share files & folders?	Two-way sync with Desktop?	Two-way sync with Android?	End-to-end encryption?	Has all three?	CardDAV & CalDAV support?	Zero access encryption?	IMAP support?	Mail storage		File storage		Comment
																		≥5 GB	≥15 GB	≥100 GB	≥1 TB	
Box		Box, Inc.		Proprietary	No	Yes	No	API	Yes (Microsoft Office Online)	Yes	Linux via 3rd party apps	via 3rd party apps								€108 (100 GB)	€486 (unlimited)	Unlimited plan shows price for 3 users (minimum amount).
Dropbox		Dropbox, Inc.		Proprietary	No	Yes	No	API	Yes (Microsoft Office Online)	Yes	Yes	via 3rd party apps									€120 (2 TB)	Family plan also available.
ecloud ¹		e.foundation <small>Non-Profit</small>		Free	Yes	Yes	No	WebDAV	Yes (OnlyOffice)	Yes	Yes	via 3rd party apps	No	Yes	Yes	No	Yes	€20 (20 GB)	€60 (128 GB)	€130 (1 TB)		Self-hosted cost: either hardware upfront costs (~€50 for RaspPi + ~€50 for 1 TB HDD) or ~€60 p.a. for cheap VPS (e.g. 1 TB at AlphaVPS)
Etesync		Etesync Ltd.		Free	Yes	Yes							Yes	Yes	Yes (via EteSync Bridge)						Hosted by EteSync developers: €21 p.a.; Self-hosted cost: either hardware upfront costs (~€50 for RaspPi) or ~€12 p.a. for cheap VPS	
Fastmail		Fastmail Pty Ltd		Proprietary	No	Yes	No	WebDAV (and FTP)	No (but can manage files in browser)	No (only team members)	via 3rd party apps	via 3rd party apps	No	Yes, but tasks missing on website	Yes	No	Yes	€44 (30 GB)	€160 (100 GB)			
Filen		Filen Cloud Dienste UG		Clients are free or source available	No	Yes	Yes	No (not compatible with E2EE)	No (but can manage files in browser)	Yes	Yes	No							€12 (100 GB)	€90 (2 TB)		Lifetime purchase options also available.
fruux		fruux GmbH		Proprietary	No	Yes							No	Yes	Yes						Free for syncing two devices, otherwise €40 p.a.	
Google One Google Drive & Gmail etc.		Alphabet Inc. <small>Big Tech PRISM Evil</small>		Proprietary	No	Yes	No	API	Yes (Google Docs Editors)	Yes	Linux via 3rd party apps	via 3rd party apps	No	Yes	Yes, except tasks (own API)	No	Yes	free (15 GB)	€20 (100 GB)	€100 (2 TB)		Can be shared with up to 6 people
GMX/Mail.com		United Internet AG		Proprietary	No	In transit only	No	WebDAV (and FTP)	Yes (GMX Online Office)	Yes	via 3rd party apps	via 3rd party apps	No	Yes, but tasks missing on website	Yes	No	Yes	free (65 GB)	€24 (100 GB)	€179 (1 TB)		
Icedrive		ID Cloud Services Ltd.		Proprietary	No	Yes	Yes (limited)	WebDAV (not for E2EE files)	No (but can manage files in browser)	Yes	Yes	via 3rd party apps							€22 (150 GB)	€50 (1 TB)		Lifetime purchase options also available.
Infomaniak kDrive & Workspace		Infomaniak Network SA		Clients are free	No	Yes	No	WebDAV	Yes (Infomaniak Office)	Yes	Yes	via 3rd party apps	No	Yes	Yes	No	Yes	free (20 GB)	€60 (2 TB)			Family plan also available
Internxt Drive		Internxt Universal Technologies SL		Free	Yes	Yes	Yes	No (not compatible with E2EE)	No (but can manage files in browser)	Yes	Yes	No							€42 (100 GB)	€108 (2 TB)		Lifetime purchase options also available.
Kolab Now		Apheleia IT AG		Free	Yes	In transit only	No	WebDAV	Yes (Collabora Office)	Yes	via 3rd party apps	via 3rd party apps	No	Yes	Yes	No	Yes	€120 (5 GB)	€142 (15 GB)	€385 (100 GB)		
Linshare		Linagora		Free	Yes	"coming soon"	No	No	Yes (OnlyOffice)	Yes	"coming soon"	No							€36 (250 GB)	€120 (2 TB)		
Mailbox.org		Heinlein Hosting GmbH		Mostly free (mostly based on Open-Xchange)	No alternative: Open-Xchange	Yes	Yes (limited)	WebDAV	Yes (OX Documents)	Yes	via 3rd party apps	via 3rd party apps	No	Yes	Yes	Yes	Yes (needs PGP support in client)	€36 (10 GB)	€46 (15 GB)	€121 (100 GB)	€538 (1 TB)	
Mailfence		Contact Office Group SA		Proprietary	No	"coming soon"	No	WebDAV	Yes (Contact Office)	Yes	via 3rd party apps	via 3rd party apps	No	No tasks	Yes	No, but offers OpenPGP in browser	Yes	€30 (5 GB)	€90 (20 GB)	max. 70 GB (€300)		
Mega		Mega Ltd.		Proprietary but source available (clients)	No	Yes	Yes	API, also WebDAV server via MegaCMD	No (but can manage files in browser)	Yes	Yes	via 3rd party apps							€50 (400 GB)	€100 (2 TB)		
Microsoft 365 OneDrive & Outlook.com		Microsoft Corp. <small>Big Tech PRISM</small>		Proprietary	No	Yes	No	API	Yes (Microsoft Office Online)	Yes	Linux via 3rd party apps	via 3rd party apps	No	Yes	Uses MS Exchange instead	No	Yes	free (15 GB)	€24 (100 GB)	€69 (1 TB)		Family plan also available. 1 TB plan includes Microsoft Office Online.
Nextcloud (various hosters)		Nextcloud GmbH		Free	Yes	Yes	Yes (limited)	WebDAV (not for E2EE files)	Yes (Nextcloud Office and others)	Yes	Yes	via 3rd party apps	No	Yes	Yes			Hetzner: €72 Ionos: €59 Owncube (single user): €15	€56 €108 €119 €50	€56 €108 €119 €50		Can be shared by multiple users. Self-hosted cost: either hardware upfront costs (~€50 for RaspPi + ~€50 for 1 TB HDD) or ~€60 p.a. for cheap VPS (e.g. 1 TB at AlphaVPS)
Nordlocker		Nordsec Ltd.		Proprietary	No	Yes	Yes (claimed)	No (not compatible with E2EE)	No (but can manage files in browser)	No (only with other Nordlocker users)	No Linux support	No							€34 (500 GB)	€85 (2 TB)		
pCloud		pCloud AG		Proprietary	No	Yes	Yes (limited) (claimed)	API	No (but can manage files in browser)	Yes (except E2EE files)	Yes (except E2EE files)	via 3rd party apps							€50 (500 GB)	€100 (2 TB)		Family plan and lifetime purchase options also available.
Posteo		Posteo e.K. <small>Non-Corporate</small>		Free	No	Yes							Yes (temporarily decrypted)	Yes, but tasks missing on website	Yes	Yes	€21 (5 GB)	€51 (15 GB)				

General information		File sync					Addressbook, Calendar & Tasks					Email		Pricing (single user, annual price in EUR) (prices last updated in 2022)									
Product		Developer	Juris-diction	Software license	Offered for self-hosting?	Data encrypted at rest?	End-to-end encryption?	WebDAV (or other API)?	Edit files in browser?	Share files & folders?	Two-way sync with Desktop?	Two-way sync with Android?	End-to-end encryption?	Has all three?	CardDAV & CalDAV support?	Zero access encryption?	IMAP support?	Mail storage		File storage		Comment	
																			≥5 GB	≥15 GB	≥100 GB	≥1 TB	
Proton		Proton Technologies AG		Clients are free	No	Yes	Yes	No (not compatible with E2EE)	Some (Proton Docs)	Yes	Linux via 3rd party apps	No	Yes	No tasks	No	Yes	Desktop only (via ProtonMail Bridge)		€42 (15 GB)	€96 (500 GB)			
Radicale (self-hosted)		Kozea Community Non-Corporate Non-Profit		Free	Yes	depends on setup							No	Yes	Yes							Self-hosted cost: either hardware upfront costs (~€50 for RaspPi) or ~€12 p.a. for cheap VPS	
Runbox		Runbox Solutions As		Free	No	In transit only	No	FTP	No (but can manage files in browser)	No	via 3rd party apps	via 3rd party apps	No	No tasks	Yes	No	Yes		€30 (10 GB)	€40 (25 GB)	€825 (100 GB)		
Seafile (various hosters)		Seafile Ltd.		Free	Yes	Yes	Yes (limited)	WebDAV (not for E2EE files) & API	Yes (Only-Office or Collabora Office)	Yes	Yes	via 3rd party apps						Single user prices: Luckycloud: YourSecureCloud:		€86 €96	€426 €600	Self-hosted cost: either hardware upfront costs (~€50 for RaspPi + ~€50 for 1 TB HDD) or ~€60 p.a. for cheap VPS (e.g. 1 TB at AlphaVPS)	
StartMail		StartMail B.V.		Proprietary	No	Yes							No	Neither calendar nor tasks	No	Yes (temporarily decrypted)	Yes		€53 (10 GB)				
Sync.com		Sync.com, Inc.		Proprietary	No	Yes	Yes (claimed)	No (not compatible with E2EE)	Yes (Microsoft Office Online)	Yes	No Linux support	No									€85 (2 TB)		
Syncthing (P2P sync)		Syncthing Foundation Non-Corporate Non-Profit		Free	Yes	depends on setup	n/a (serverless)	n/a (serverless) but possible	No	No	Yes (even on Unix)	Yes	Serverless sync possible with DecSync									Self-hosted server cost: either hardware upfront costs (~€50 for RaspPi + ~€50 for 1 TB HDD) or ~€60 p.a. for cheap VPS (e.g. 1 TB at AlphaVPS)	
Tresorit		Tresorit AG		Proprietary	No	Yes	Yes (claimed)	No (not compatible with E2EE)	No (but can manage files in browser)	Yes	Yes	No								€100 (500 GB)	€240 (2.5 TB)		
Tuta		Tutao GmbH		Clients are free	No	Yes							Yes	No tasks	No	Yes	No		€36 (11 GB)	€132 (101 GB)			
Wölki ¹ Cloud & Mail		oriented.net LLC		Free	No	Yes	No	WebDAV	Yes (Only-Office or Collabora Office)	Yes	Yes	via 3rd party apps	No	Yes	Yes	Yes	Yes (needs PGP support in client)		€206 (5 GB)		€401 (200 GB)	Family plan also offered. Cloud and Mail have to be purchased separately.	
Yahoo Mail		Yahoo, Inc. PRISM		Proprietary	No	In transit only							No	Yes	Yes	No	Yes		free (1 TB)				
Yandex Disk & Mail		Yandex N.V.	 	Proprietary	No	Yes	No	WebDAV	Yes (Microsoft Office Online)	Yes	Yes	via 3rd party apps	No	Yes	Yes	No	Yes		free (unlimited)	€18 (100 GB)	€89 (1 TB)		
Zoho Workspace		Zoho Corp.	 	Proprietary	No	Yes	No	API	Yes (Zoho Office)	Yes	Yes	No	No	Yes	Yes, except tasks	No	Yes		€117 (30 GB)	€117 (100 GB)	€223 (1 TB)	Prices shown are for three users (team plans).	

1: File cloud and sync based on Nextcloud

So, what's the conclusion?

There are multiple possibilities. Below I have set up five strategies how to manage your cloud setup.

Strategy 1: Don't bother and stay in the Big Tech ecosystem. At least it's comfortable and just works.

- **Apple iCloud** (€120 p.a. for 2 TB) Big Tech Incompatible with Android and Linux Opt-in E2EE for files
- **Google One** (Drive & Gmail) (€100 p.a. for 2 TB) Big Tech No privacy Bond villains Incompatible with Linux
- **Microsoft 365** (OneDrive & Outlook.com) (€69 p.a. for 1 TB files and 50 GB mail) Big Tech No privacy Incompatible with Linux

All these companies offer the whole spectrum of sync and cloud services - files, mail, and PIM. You'll have to assume that your data will be sold to advertisers and made available to the US government, you will be locked into the ecosystem with no easy way to export all of your data, and you will be forced to use a proprietary operating system, but if you're fine with all of that everything will "just work" and be well integrated with each other.

If you're using a Mac and an iPhone, going with iCloud is an obvious choice. For example, all cloud apps except iCloud are forbidden to run in the background on iOS, so if you set up an automatic camera upload it will only work when you leave the app open and screen on - except for iCloud uploads which are allowed to happen in background. Apple now offers "Advanced Data Protection", which claims to apply end-to-end encryption to all of your data except for mail, contacts and calendars. So they are actually not a bad choice! The main downside is that you can't use iCloud with an operating system that respects your privacy (e.g. Linux or degoogled Android). And of course that nothing is open source so you need to trust Apple to not have a backdoor anywhere.

If you need Microsoft Office you might as well use the 1 TB OneDrive you get for free with it (besides, I have to admit that Microsoft's family subscription is great value for money, especially if you buy it for half price from Amazon).

The only one that doesn't really make sense is the Google ecosystem; they neither have the best products nor the best prices, and they are arguably the most evil of the three Big Tech companies.

Strategy 2: Avoid Big Tech and use a different one-stop solution, but one that claims to respect your privacy.

- **ecloud** (€130 p.a. for 1 TB) Non-profit Open Source
- **Infomaniak** (kDrive & Workspace) (€60 p.a. for 2 TB) Hosted in Switzerland Open Source
- **Wölki Cloud & Mail** (€391 for 5 GB mail + 50 GB files) Email with zero access encryption Hosted in Switzerland Open Source Ridiculously expensive
- **Zoho Workspace** (€223 p.a. for 1 TB) - targets business users rather than private individuals

• If you don't need a lot of cloud storage and are fine with just WebDAV access, these mail-focused providers could also be interesting:

- **Fastmail** (€80 p.a. for 100 GB mail + 50 GB files) No file sync client
- **Kolab Now** (€385 p.a. for 100 GB) Hosted in Switzerland Open Source No file sync client Expensive
- **Mailbox.org** (€121 p.a. for 100 GB) Email with zero access encryption Open Source No file sync client
- **Mailfence** (€90 p.a. for 20 GB mail + 24 GB files) No file sync client
- **Runbox** (€70 p.a. for 50 GB mail + 5 GB files) Open Source No file sync client

These companies claim to respect your privacy, not scan your data, and not sell your data to advertisers. That's probably good enough for most people who don't want to be spied on and don't want to support the Big Tech monopolists, but also don't really need end-to-end encryption or protect their data from the government. Keep in mind that these companies can *claim* to not read your data, but there's nothing technically stopping them from it. If you *do* need or want that extra protection to keep your data safe from anyone's eyes, then you need to either get end-to-end encryption for all your services or you need to self-host at home.

Strategy 3: End-to-end encryption (E2EE) for everything, so that your provider can't access your data.

Strategy 3a: E2EE one-stop solutions

- **Proton** (€96 p.a. for 500 GB) E2EE Hosted in Switzerland Open Source No desktop sync for ProtonDrive yet Can't edit files in browser No CalDAV/CardDAV No tasks in calendar No IMAP on mobile

Sadly, there is only one provider out there that offers a combination of mail hosting, calendar/contacts, and file cloud with all items fully end-to-end encrypted. That one provider is Proton Technologies. Unfortunately, while ProtonMail is a great and mature product, the other offerings (ProtonCalendar and ProtonDrive) are still rather immature.

Strategy 3b: combination of multiple E2EE services

- Variant 1 - best in class (€121 p.a. for 15 GB mail + 2 TB files)
 - For email: **Proton** E2EE Hosted in Switzerland Open Source Forced to use their mobile app
 - For contacts, calendar, and tasks: **EteSync** E2EE Open Source Buggy?
 - For file sync: **Mega** E2EE Source available API for 3rd-party apps Can't edit files in browser
- Variant 2 - a bit cheaper (€111 p.a. for 5 GB mail + 2 TB files)
 - For email and contacts/calendar/tasks: **Posteo** Zero access encryption Open Source Data will get temporarily decrypted No tasks in web interface Can't use your own domain for emails
 - For file sync: **Filen** E2EE Open Source No API for 3rd-party apps Can't edit files in browser

For encrypted mail there are many options, so you can choose whatever you like. ProtonMail is often recommended as the best one, but there are many other good ones. For encrypted calendars and contacts, the only good option is EteSync. Posteo is an interesting alternative to both ProtonMail and EteSync, because it supports zero access encryption for not only email, but also contacts and calendars. Finally, there are several files clouds with end-to-end encryption, but only Mega and Filen have open source clients and support Linux. Of the two, Mega is the slightly superior choice as it has an API to integrate with other applications (e.g. FolderSync support for Android), and you can even set up WebDAV if you want.

Strategy 4: Self-host. No need for E2EE if your data isn't stored on someone else's computer.

Strategy 4a: Self-host on a home server

- **ecloud** (based on Nextcloud, includes email)
- **Nextcloud + your own mail server** or you keep your old email hoster and connect it to the Nextcloud mail app
 - If you don't want to spend too much time setting up your homeserver you may want to consider a plug-and-play solution such as [Homedrive](#) or [Nextbox](#).
- **Seafile** for files + **Baikal/Radicale** for contacts and calendar + **your own mail server**
- **Kolab** No file sync client

Self-hosting means taking full control of your data. Keep in mind that you should ideally self-host at home, on your own server. Renting a VPS might be easier, but in the end your hoster can still read your data if they really want to (or are forced by the government). However, self-hosting also has a number of downsides: software updates going wrong, home Internet going down, hardware problems, taking care of backups, ...

Strategy 4b: Serverless (peer-to-peer) synchronization. Not possible for email though.

- **Syncthing** for files + **DecSync** for contacts and calendar.

Syncthing and DecSync are serverless and can directly sync between different devices as long as they are online at the same time. You can leave a synched computer at home running all the time (or rent a VPS, but with the same privacy concerns mentioned above) which would essentially act as a "server" with which your other devices can sync whenever they're online. Email is not part of this solution; you could host your own mail server or just use one of the other providers.

Do you have any comments or corrections? [Please drop me an e-mail](#) or [create an issue on Github](#)

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