

File services

- Centralized remote file storage.
- Proprietary protocols.
- File Up- and Download.
- Multi client synchronization.
- Network file system support.
- Ubiquitous access.

Customer demands

- Integrated backup.
- Versioning.
- Sharing on user / group level.
- Secure access, Encryption
- Consistent availability.
- Federation support.

Driving factors

- Local hardware does not scale:
 - Systems interoperability
- Storage as a service
- Economy of scale: Cheap hardware, distributed system

Selected cloud file services

- Google Drive
- Dropbox
- OneDrive
- iCloud Drive
- Box
- Amazon Cloud Drive

Selected self hosting products

- Nextcloud, Owncloud
- Seafile
- Cozy
- Resilio

Nextcloud features

- Open source (PHP)
- Sync clients
- End-to-end encryption support
- Full text search
- Plugin extendability
 - CardDav
 - CalDav
 - LDAP support

Lightning integration

The screenshot shows a calendar application window titled "First Account" with a "Calendar" tab. The interface includes a menu bar (File, Edit, View, Go, Message, Events and Tasks, Tools, Help) and a toolbar with options like Synchronise, Event, Task, Edit, and Delete. The main area displays a multiweek calendar view for the period "23 February – 22 March 2014". The calendar grid shows days from Sunday to Saturday. Events are visible on Tuesday, Wednesday, and Thursday. A sidebar on the right shows the current date as "4 Tue" (March 4, 2014) and lists upcoming events: "Meeting" at 10:00 today, "Phone Call" at 10:00 tomorrow, and "Visit Supplier" at 10:00 on March 6.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
23 Feb	24	25	26	27	28 Feb	1 Mar
2	3	4 10:00 Meeting	5 10:00 Phone C...	6 10:00 Visit Sup...	7	8
9	10	11	12	13	14	15

Calendar sidebar events:

- Today: 10:00 Meeting
- Tomorrow: 10:00 Phone Call
- Soon: 06 March 2014 10:00 Visit Supplier