



# Seafile Cloud Storage

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**Introduction**



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**Features**



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**Architecture**



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**User Stories**

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# Evolution of Seafile

## Enterprise File Sync & Share

v1.0

Seafile CE

October 2012

v3.0

Seafile Pro

August 2014

November 2016

## Knowledge Management & Document Collaboration

v6.1

Online Office  
Integration

July 2017

v7.0

Seafile Docs

March 2019

New Web UI,  
SeaDrive

v6.0

Next Generation File Syncing

# Why Seafile

## Collaboration

✓ Online Office Editing

✓ Seafile Docs

## Integration

✓ LDAP/AD/SSO

✓ Restful API

## Ease of Use

✓ Drive Client

✓ Works like Windows Share

**Seafile**

## Rich Features

✓ Complete Cloud Storage Features

✓ Cross Platform Clients

## Reliability

✓ Reliable File Syncing

✓ Data Integrity Checks

✓ Tested by Million Users

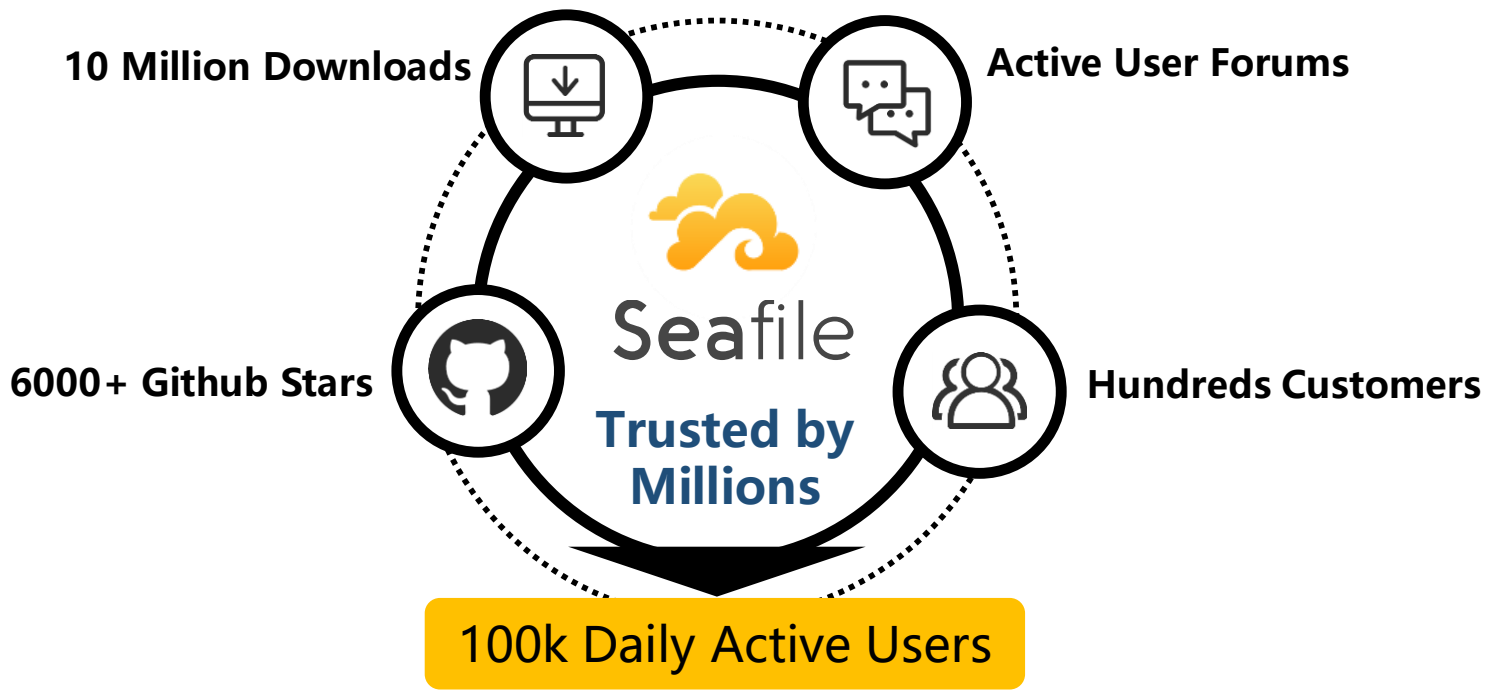
## Performance

✓ Sync 10k files in 1 minute

✓ Low Hardware Overhead

# Active User Community

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# High Speed File Syncing Across All OS

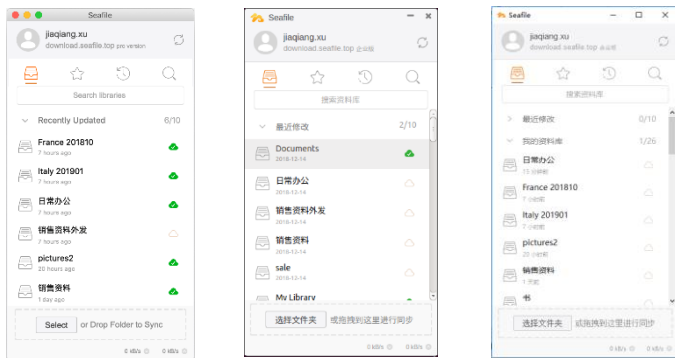
File Syncing Clients

Virtual Drive Client

File Sharing

Online Collaboration

More Features



Support Windows, macOS, Linux



## Selective Sync Folders

Choose the library or folder you want to sync



## Cloud File Browser

Access files without syncing them



## High Speed File Syncing

Sync 10k files in a minute  
Transfer files in wire-speed



# Virtual Drive Client

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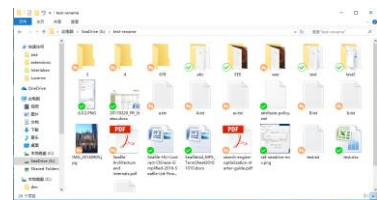
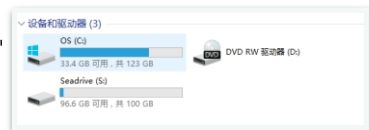


Map

Drive

Supports

All OS



Maps cloud storage as virtual drive. Similar to Windows Share.



Windows, Mac, Linux



# Windows-like User Experience

File Syncing Clients

Virtual Drive Client

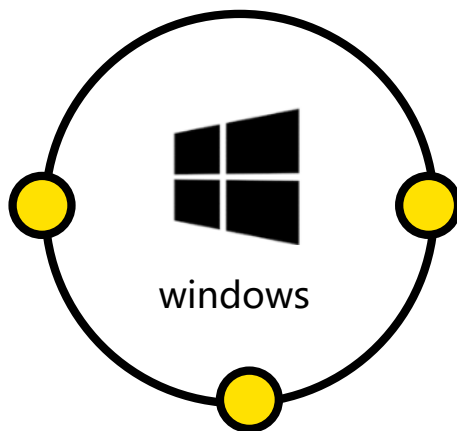
File Sharing

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More Features

## Offline Cache

- Cache files for offline access at any time



## Easy to Use

- Just works like Windows Share. No learning curves.
- Only download files on-demand

## Next Generation File Syncing

- Dropbox Smart Sync
- Google Drive File Stream
- OneDrive Files On-Demand



# File Sharing with Organization in Mind

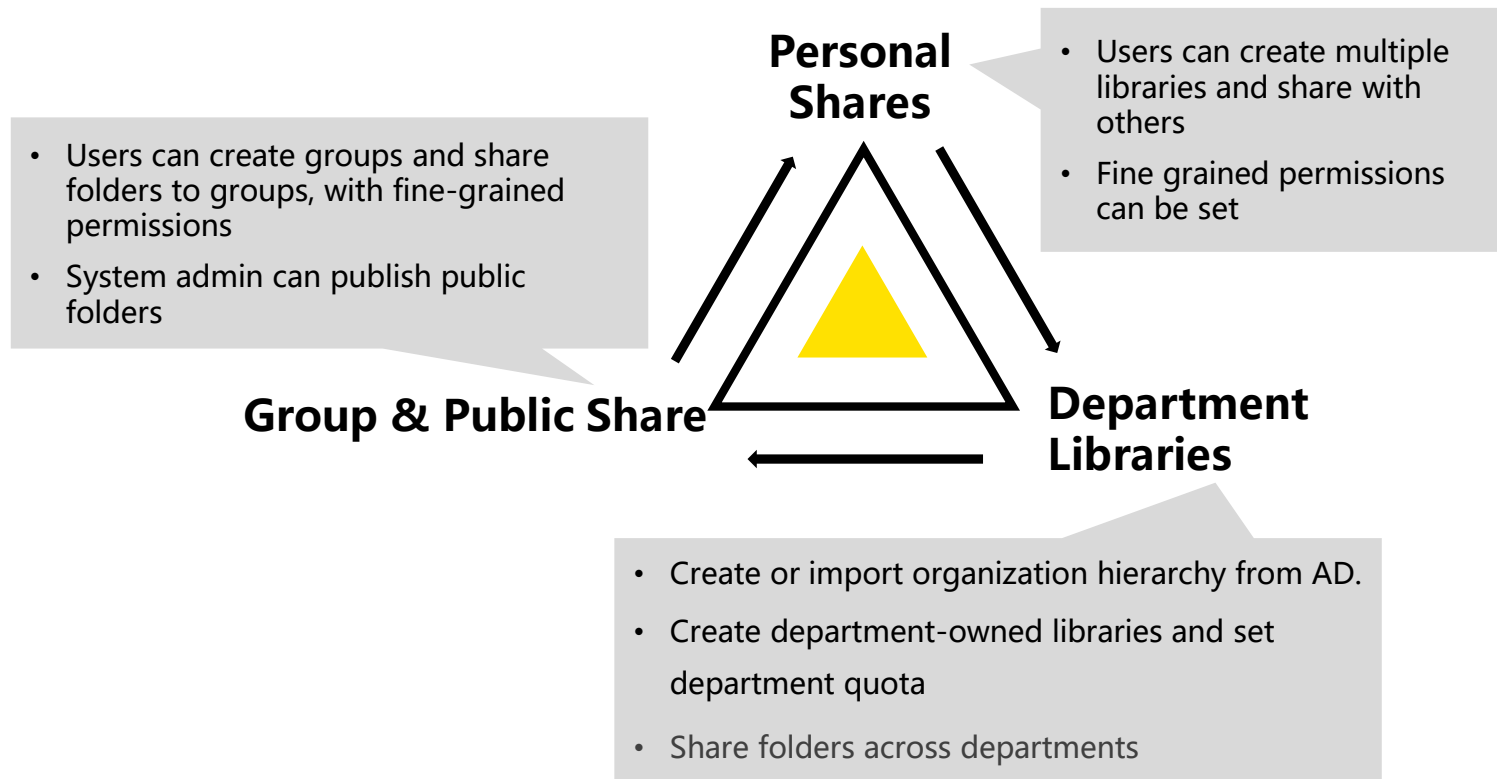
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# External Collaboration

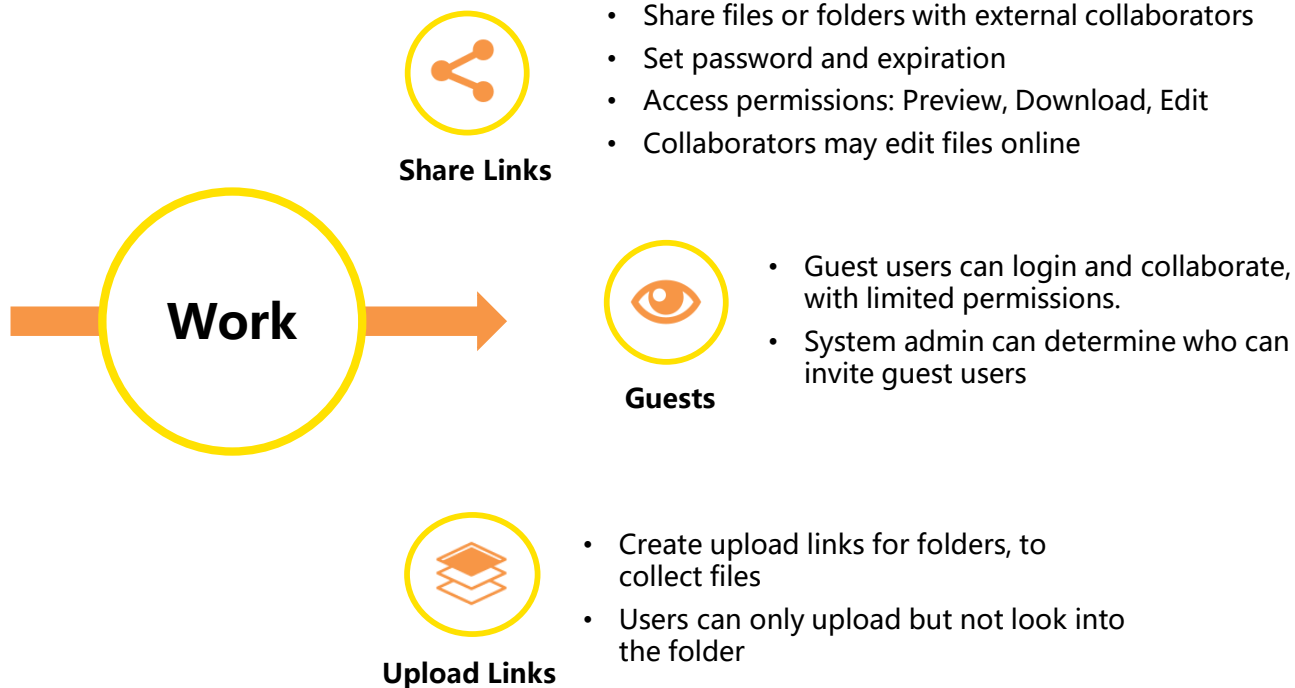
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# Seafile Docs – Overview

File Syncing Clients

Virtual Drive Client

File Sharing

Online Collaboration

More Features



Files



Knowledge  
Management



Document  
Collaboration



Seafile Docs



Community Edition



docker



Professional Edition



# Seafile Docs – Knowledge Management

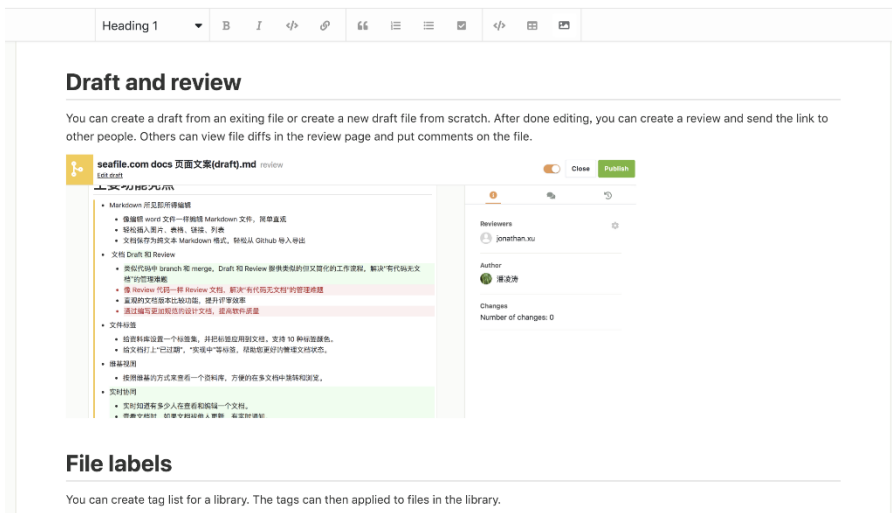
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## WYSIWYG Markdown Editing

- ✓ Save/edit rich text with Markdown syntax
- ✓ Edit Markdown text just like in Word
- ✓ Table editing, insert image, image resizing, linking to documents by drag-n-drop

## Wiki Mode

- ✓ Use a library like a wiki project
- ✓ Contents saved as Markdown documents instead of wiki pages
- ✓ Easily manage all file types together with wiki documents

## File Labels and Metadata

- ✓ Create label set for a library
- ✓ Set labels for files
- ✓ Locate files by labels
- ✓ Mark related files for a file

# Seafile Docs – Knowledge Management

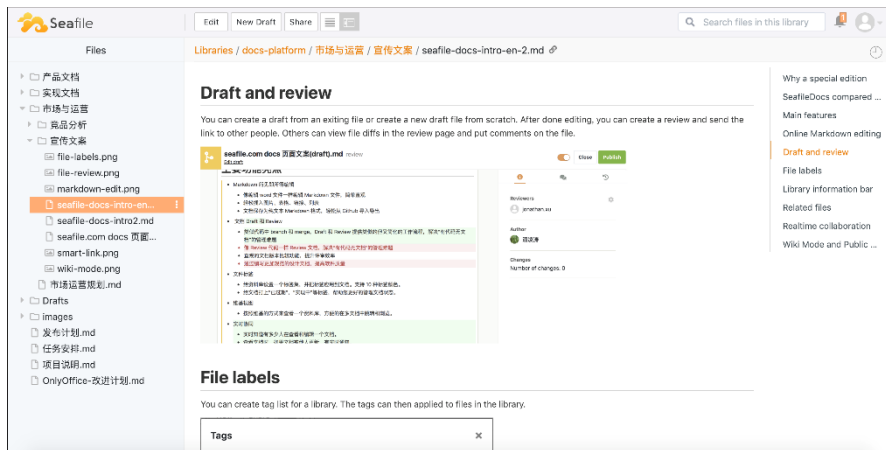
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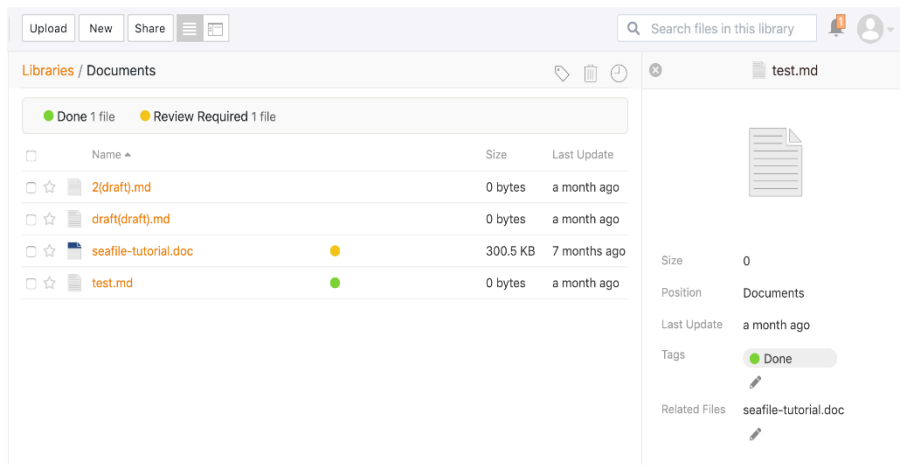
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# Seafile Docs – Document Collaboration

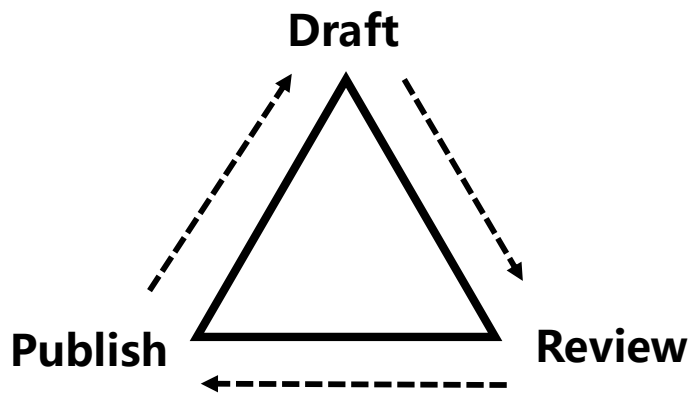
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Seafile Docs allows you to review **documents**  
Just like reviewing **code** on Github



## Create Draft, Ask for Review

Create a draft to edit a new version of a document. You can create a review request based on a draft.



## Review and Publish

Changes between document versions are highlighted. Reviewer can easily comment on each change.



## Real-time Collaboration

You can see who is also opening the document. Changes by others will be notified in real-time.



# Office Document Collaboration

File Syncing Clients

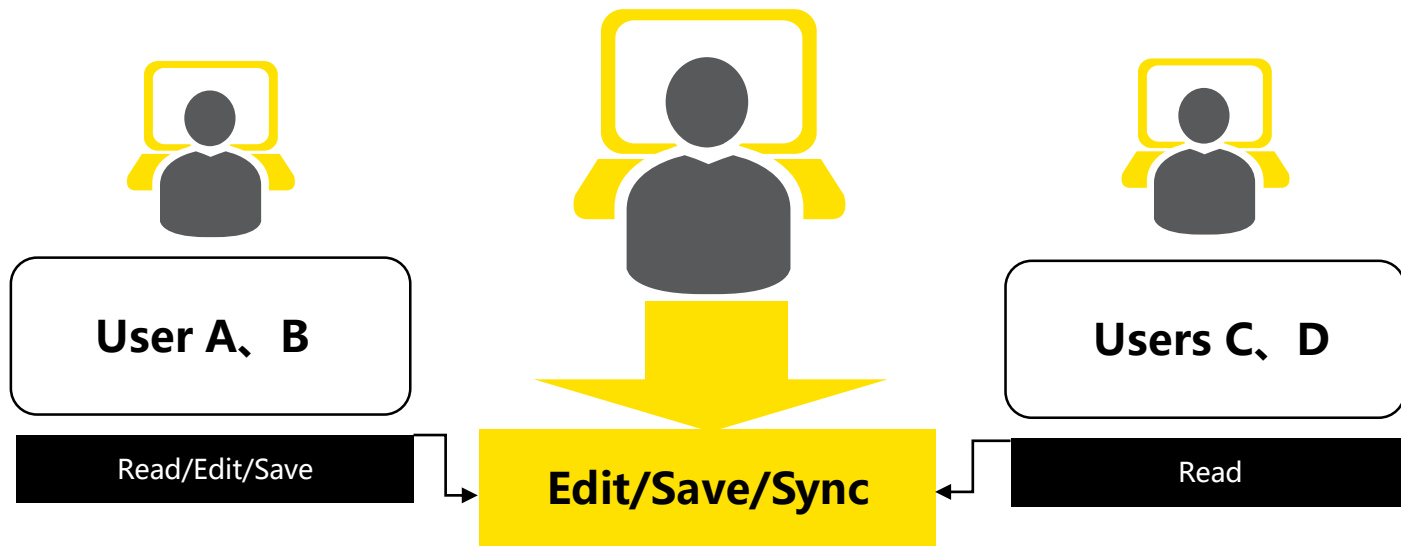
Virtual Drive Client

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## Co-Edit Office files in web browsers



Supports Office Online, Collabora Online and OnlyOffice



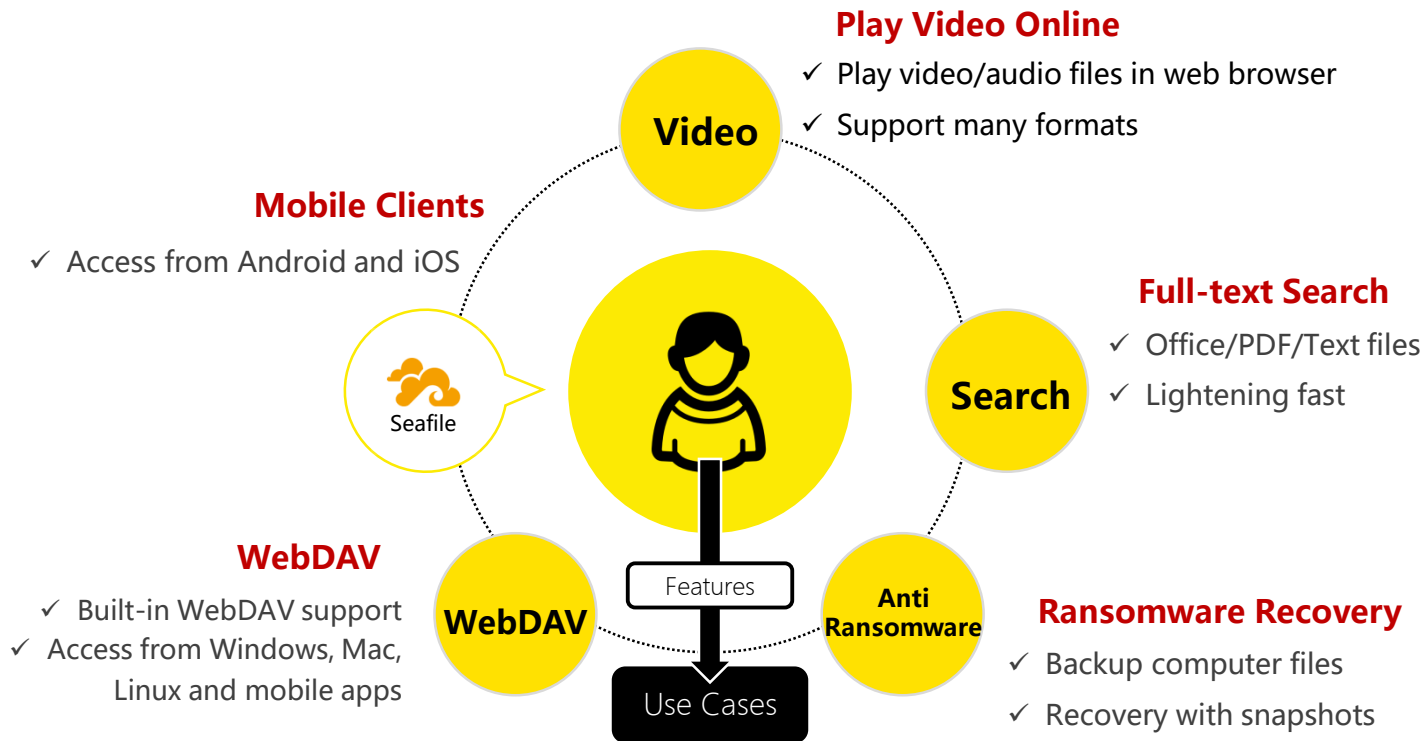
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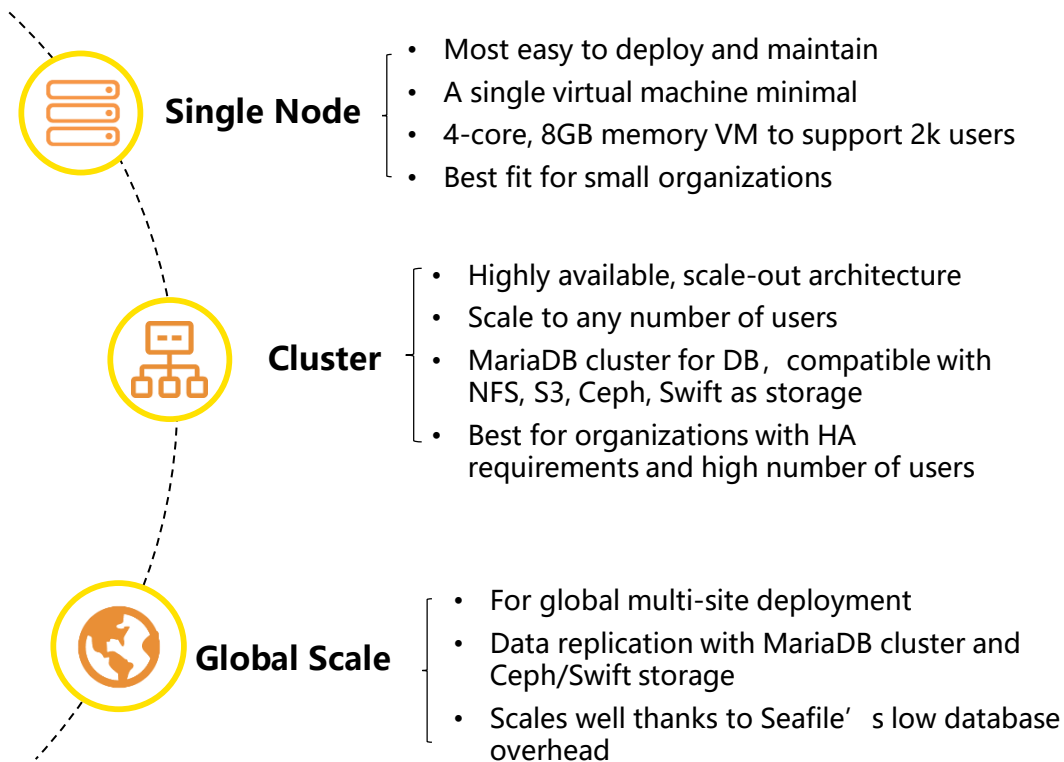
# Flexible Deployment Architectures

Architecture

Performance

Integration

Security



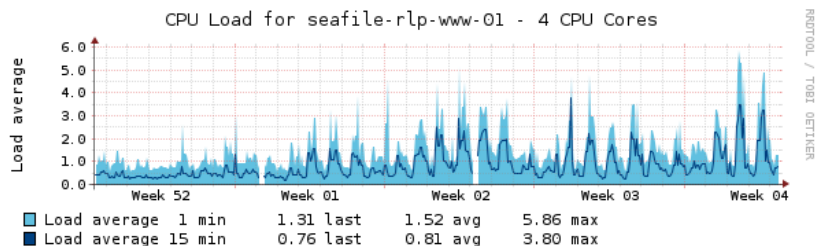
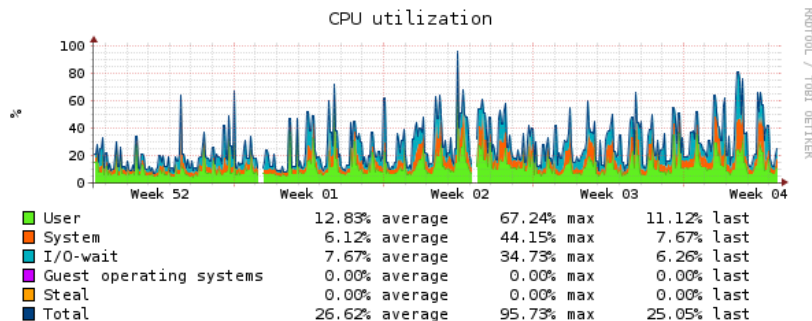
# Case Study – Cloud for Rheinland-pfalz

Architecture

Performance

Integration

Security



- University of Mainz in Germany provides cloud service for the universities in the state of Rheinland-Pfalz
- 21238 registered users, 1.8k DAU
- 40071 libraries, 28269774 files, 40TB
- Only used 4 VMs with 4-core, 8GB memory. DB also on the nodes. Average CPU load is about 20% avg.



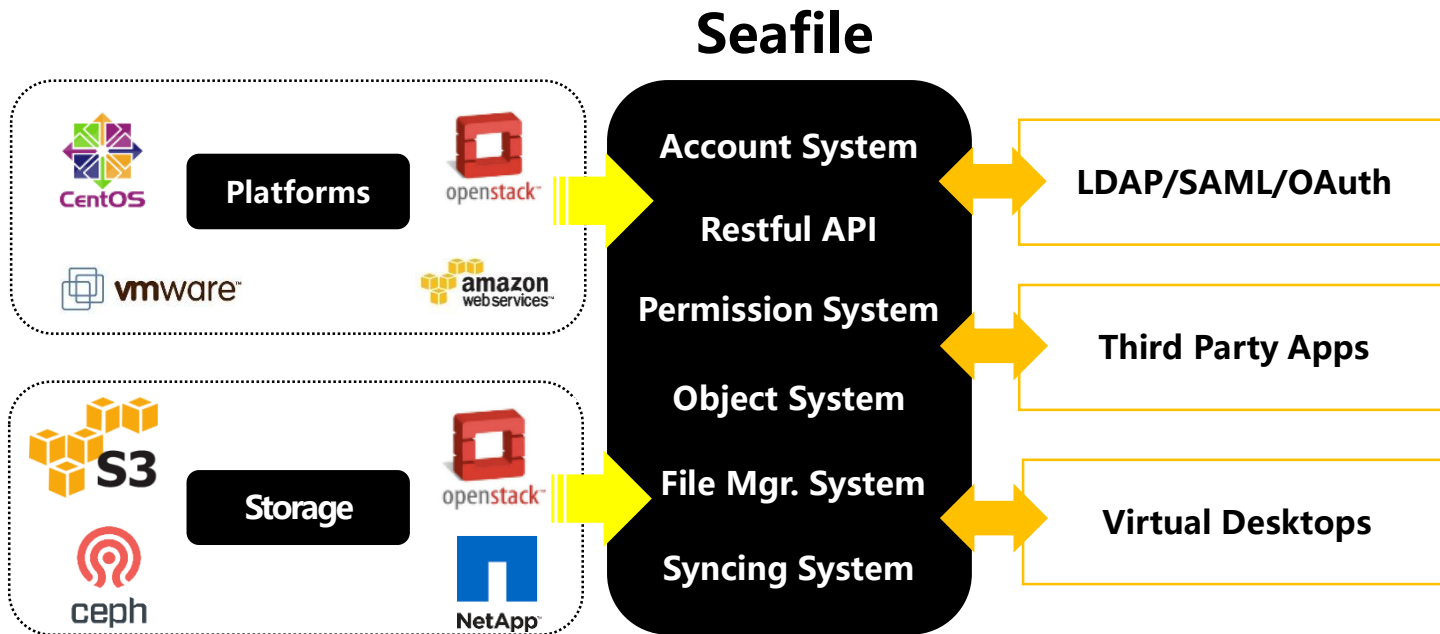
# Platform and Protocol Integrations

Architecture

Performance

Integration

Security



# Security Mechanism

Architecture

Performance

Integration

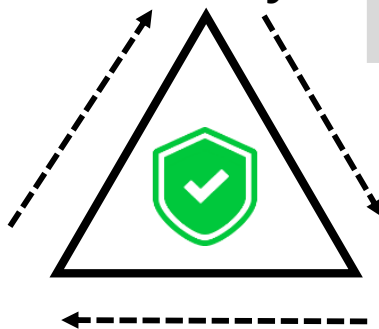
Security

- Encrypted libraries: end-to-end data encryption
- Library Snapshots
- Remote Wipe for clients
- Data backup and recovery

**Data Safety**

**Account Security**

- Strong password enforcement
- Two-factor authentication
- Brute-force guess prevention
- Connected device management



**Monitoring**

- Audit logs for login and file access
- Share link management
- RBAC rules, user roles
- System statistics and monitoring





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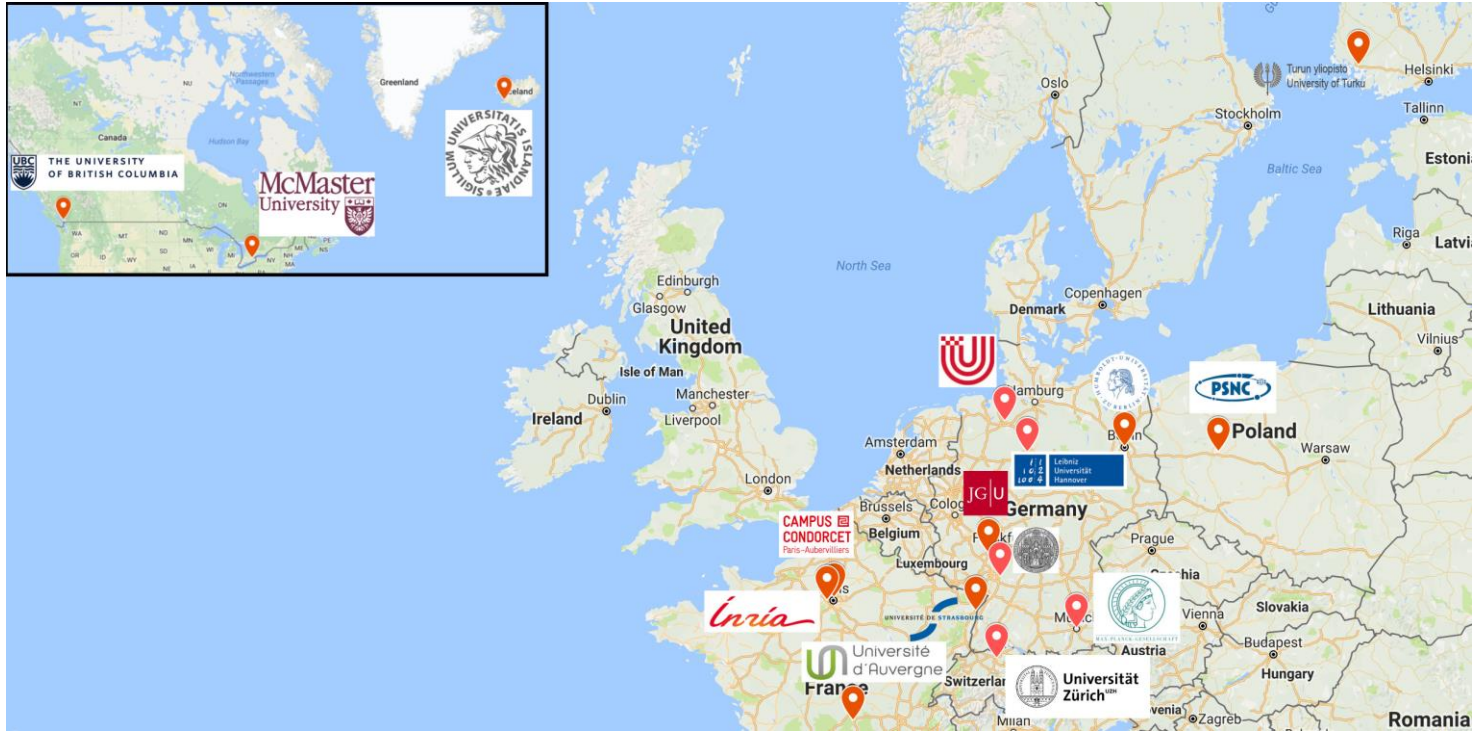
**PART. 4**

**User Stories**

# Trusted by 20+ European Educational Institutions

Education

Enterprise



Including HU Berlin, Heidelberg University, Max Planck Society, University of Mainz



# Chinese Universities

Education

Enterprise



## Use Case

Top universities in China, such as Tsinghua University, Peking University and Nanking University, use cloud storage for both daily file managements and scientific research data (such as HPC in Physics).

## Key Values

1. Provide file hosting for all students and staffs in the universities
2. Linux clients are widely used in HPC cluster, to sync data and experienment results. Replaces FTP based solution.
3. High speed file syncing and handling of large number and size of files is the key to this solution. Sync 10k files per minute; sync 1TB sized files.

## Solution

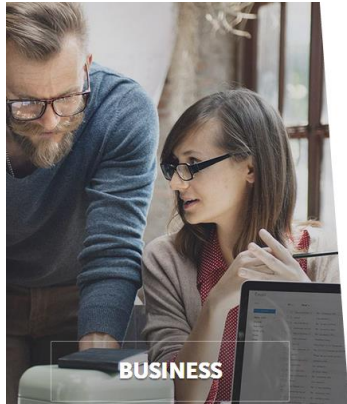
1. Seafile clusters with Ceph as storage backend
2. Integrate with multiple LDAP servers, one for personal accounts and one for HPC machine account.



# Kaspersky

Education

Enterprise



SAVING THE WORLD  
FOR 20 YEARS

## Use Case

As one of the world leaders in cyber security, Kaspersky wants to provide unified cloud storage service for employees across 3 continents.

## Key Values

1. Raise productivity for 3000 employees for the last 4 years
2. Centralized file management for the entire company, increasing security
3. Integrates Seafile with other systems

## Solution

1. Global deployment in 4 data centers
2. Data replication with MariaDB cluster and OpenStack Swift distributed storage
3. Works well thanks to Seafile' s low database overhead



# Alibaba Group

Education

Enterprise



## Use Case

As one of world leading E-commerce and cloud computing company, Alibaba group needs a cloud storage service for its 80,000 employees world wide. Ease of use and scalability are must.

## Key Values

1. Services more than 10,000 daily active users, from China and world wide. Approaching 1PB of data.
2. Online office file editing greatly increase productivity
3. Synced large volume of existing files from NAS to Seafile
4. Use fine-grained share permissions to protect sensitive files

## Solution

1. Run on Alibaba Cloud docker platform, with 12 docker instances
2. Use database, Memcached and object storage from Alibaba Cloud
3. MS Office Online Server for online office collaboration





**THANKS**

# KEEP CONTACT

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