Nextcloud + Spectrum Scale

Frank Karlitschek

Frank Karlitschek

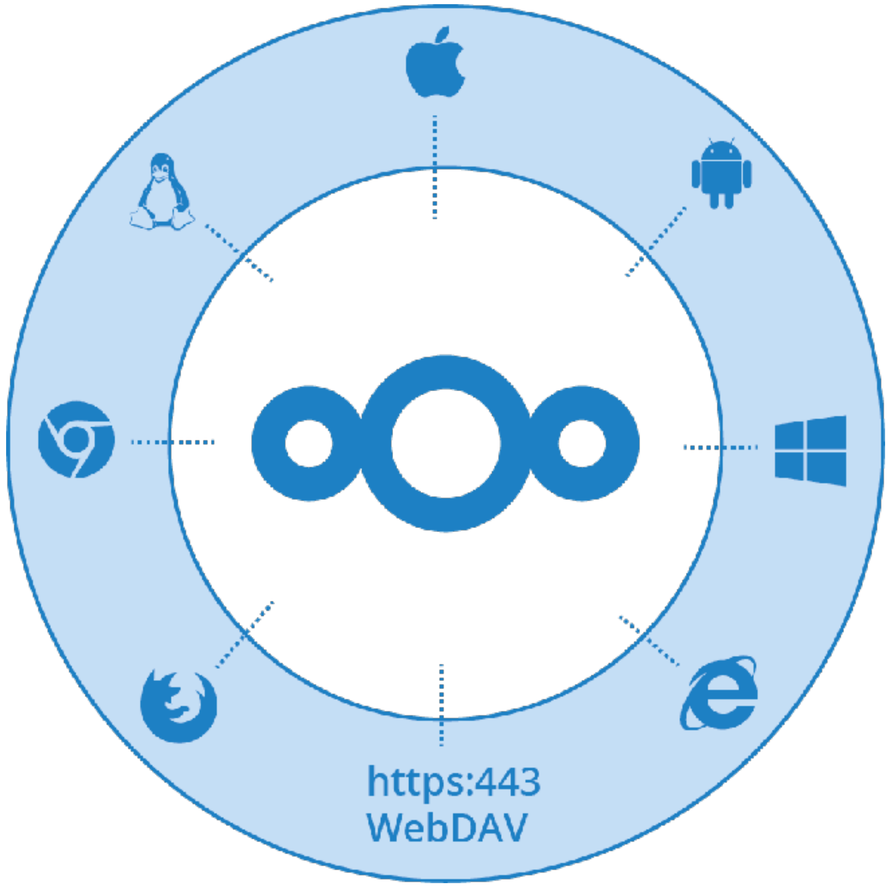
- Born in Reutlingen, Germany
- Studied Computer Science in Tübingen
- Unit Manager and VP Engineering in different Internet companies
- KDE contributor and board member
- Founded openDesktop.org
- W3C invited expert
- Fellow at Open Forum Europe
- Founded ownCloud
- Founded Nextcloud

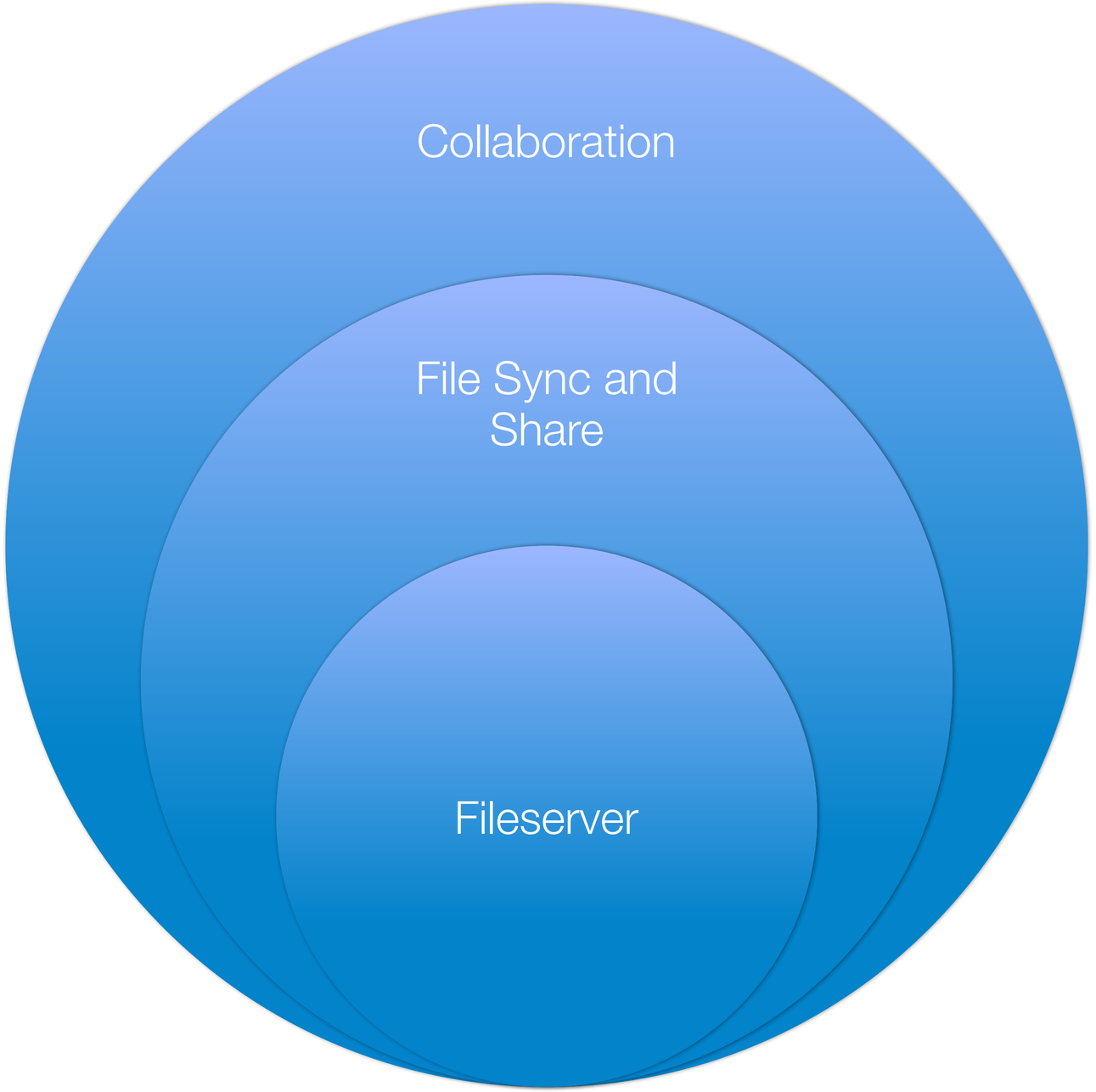
Agenda

- Nextcloud Overview
- Nextcloud Storage & Spectrum Scale
- Questions

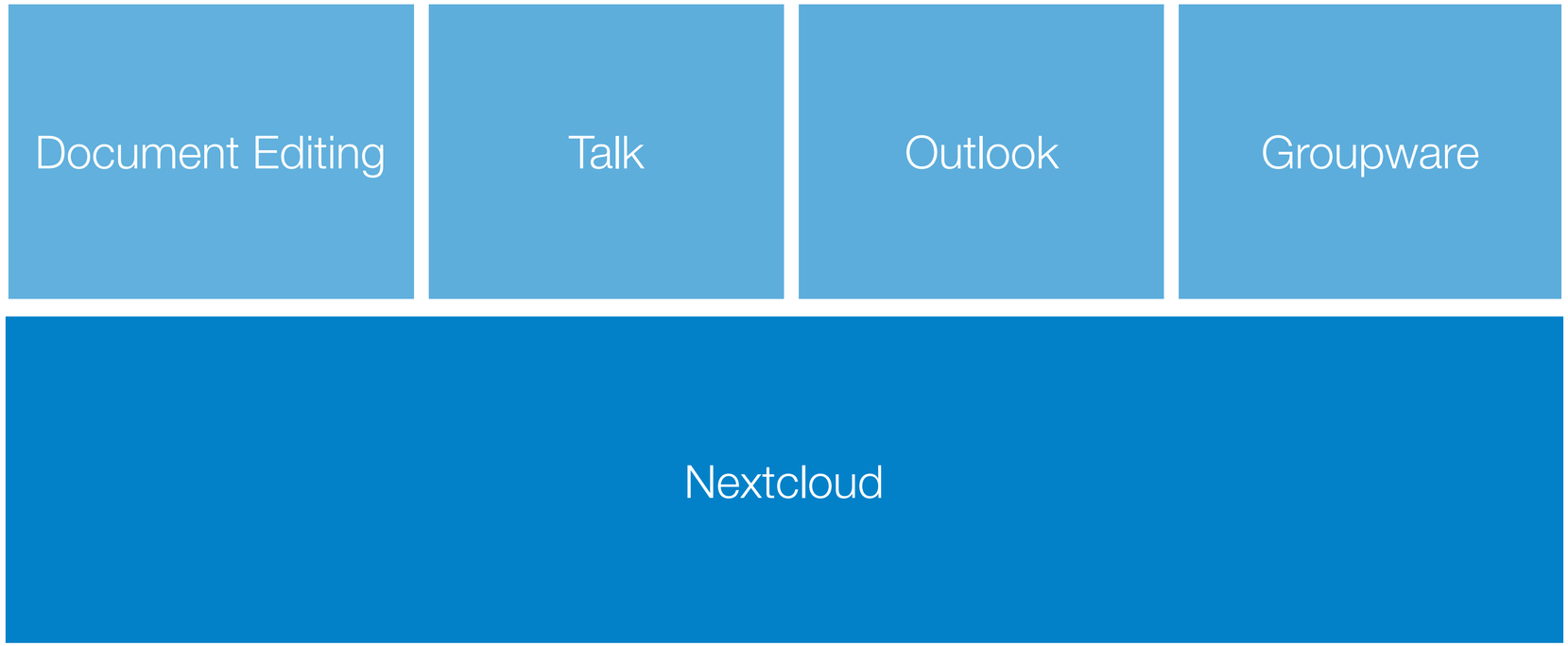
Nextcloud Overview

Enterprise File Sync and Share

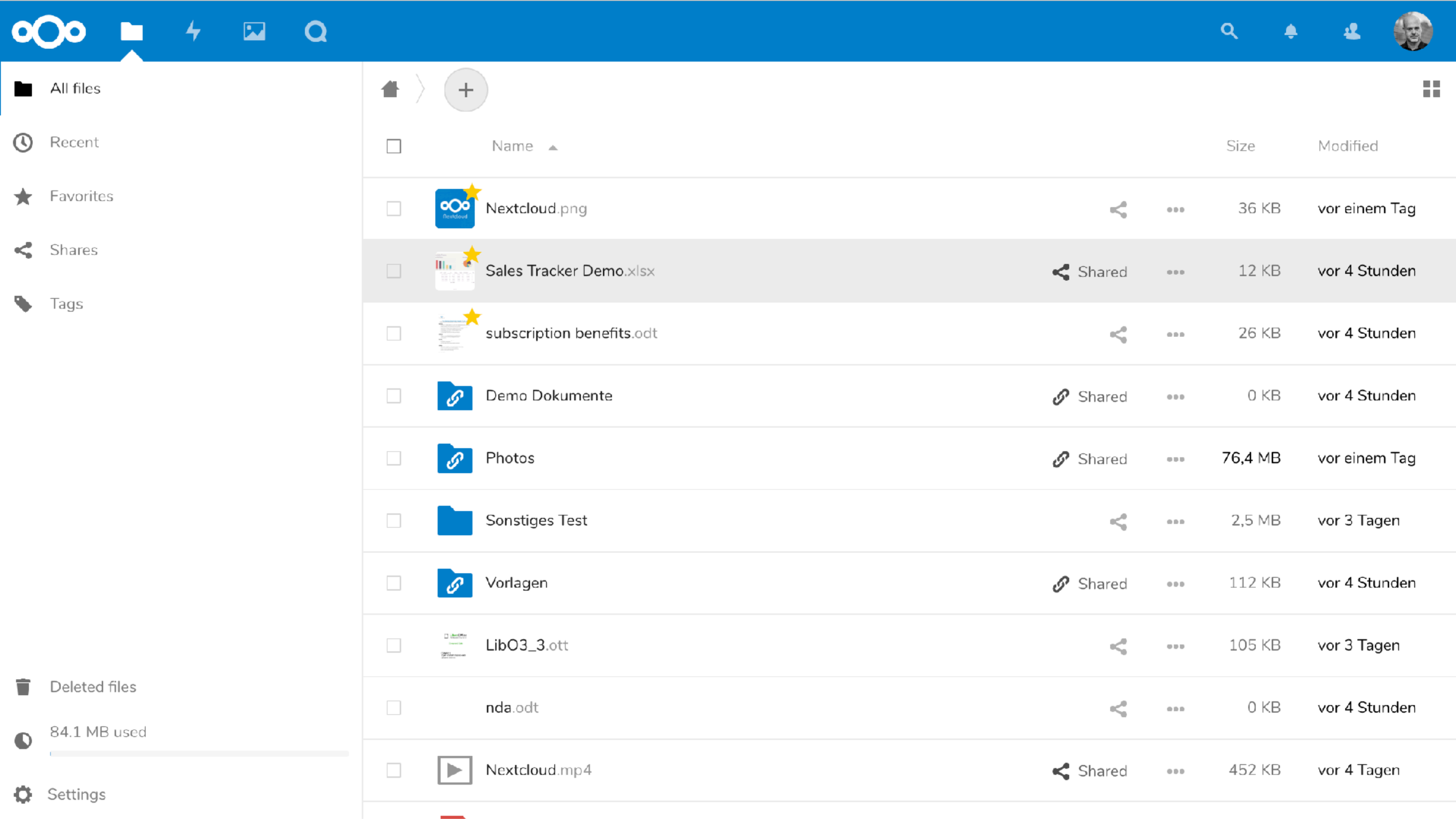


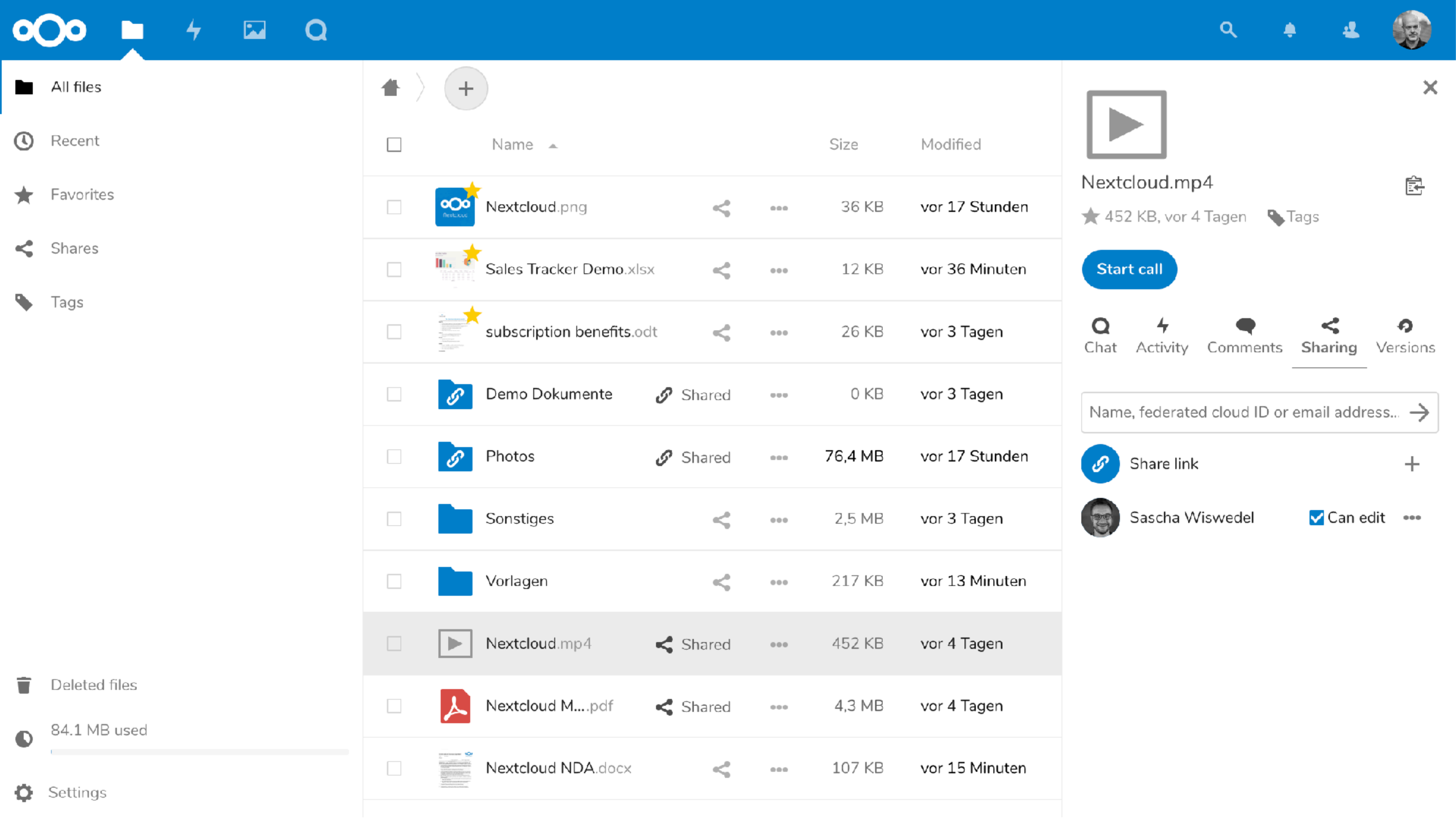

Collaboration
File Sync and
Share
Fileserver

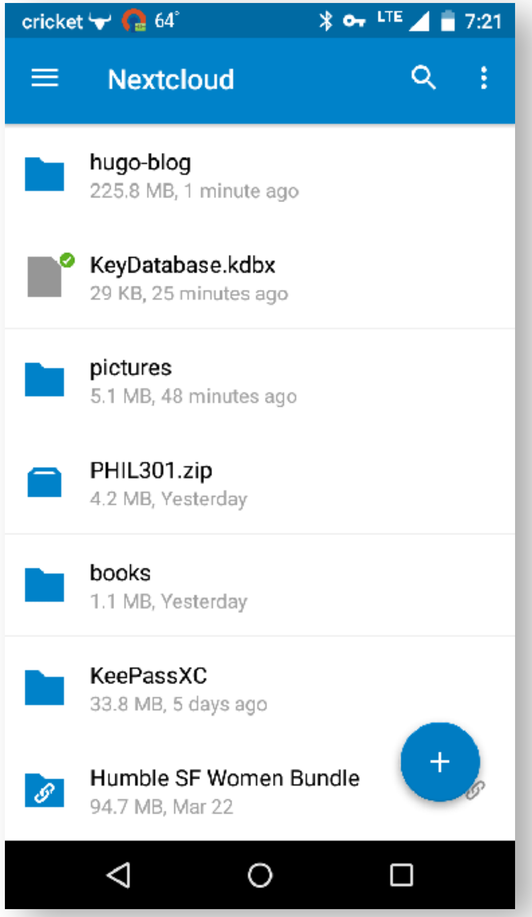
Nextcloud

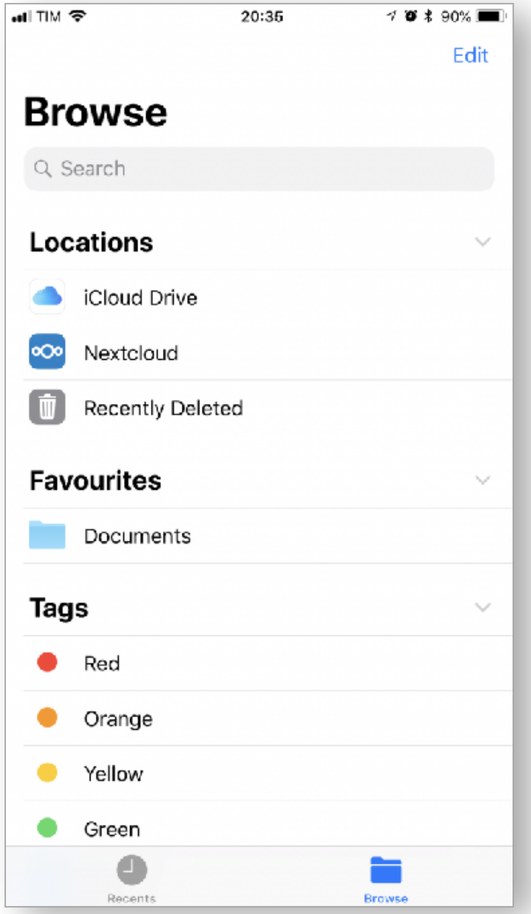


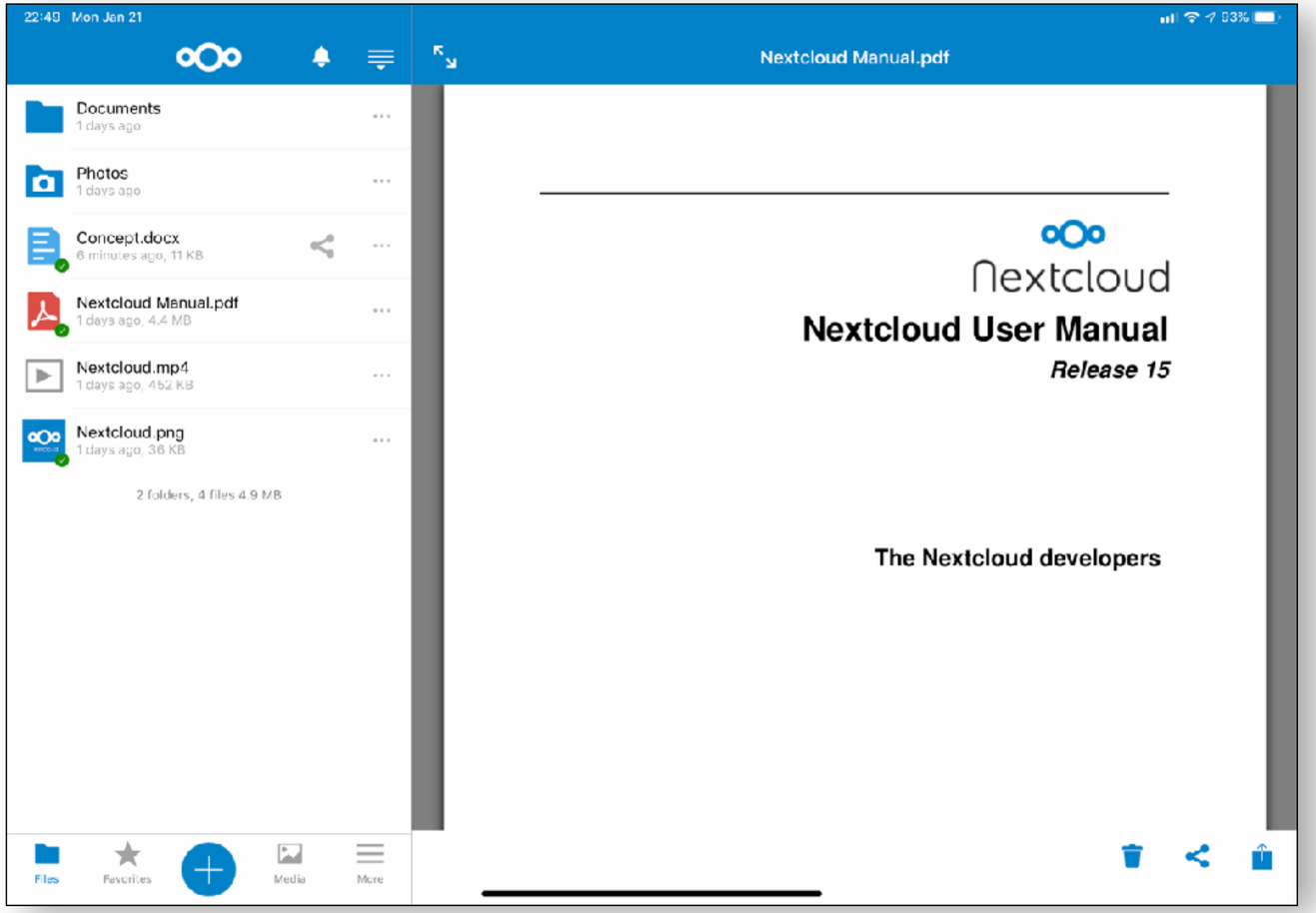
Productivity, Security, On Premises


All files
Recent
Favorites
Shares
Tags
Deleted files
84.1 MB used
Settings
Name
Size
Modified
Nextcloud.png
36 KB
vor einem Tag
Sales Tracker Demo.xlsx
Shared
12 KB
vor 4 Stunden
subscription benefits.odt
26 KB
vor 4 Stunden
Demo Dokumente
Shared
0 KB
vor 4 Stunden
Photos
Shared
76,4 MB
vor einem Tag
Sonstiges Test
2,5 MB
vor 3 Tagen
Vorlagen
Shared
112 KB
vor 4 Stunden
LibO3_3.ott
105 KB
vor 3 Tagen
nda.odt
0 KB
vor 4 Stunden
Nextcloud.mp4
Shared
452 KB
vor 4 Tagen


All files
Recent
Favorites
Shares
Tags
Deleted files
84.1 MB used
Settings
Name
Size
Modified
Nextcloud.png 36 KB vor 17 Stunden
Sales Tracker Demo.xlsx 12 KB vor 36 Minuten
subscription benefits.odt 26 KB vor 3 Tagen
Demo Dokumente Shared 0 KB vor 3 Tagen
Photos Shared 76,4 MB vor 17 Stunden
Sonstiges 2,5 MB vor 3 Tagen
Vorlagen 217 KB vor 13 Minuten
Nextcloud.mp4 Shared 452 KB vor 4 Tagen
Nextcloud M....pdf Shared 4,3 MB vor 4 Tagen
Nextcloud NDA.docx 107 KB vor 15 Minuten
Nextcloud.mp4
452 KB, vor 4 Tagen
Tags
Start call
Chat
Activity
Comments
Sharing
Versions
Name, federated cloud ID or email address...
Share link
Sascha Wiswedel
Can edit


cricket 64° LTE 7:21
Nextcloud
hugo-blog
225.8 MB, 1 minute ago
KeyDatabase.kdbx
29 KB, 25 minutes ago
pictures
5.1 MB, 48 minutes ago
PHIL301.zip
4.2 MB, Yesterday
books
1.1 MB, Yesterday
KeePassXC
33.8 MB, 5 days ago
Humble SF Women Bundle
94.7 MB, Mar 22


TIM 20:36 90%
Edit
Browse
Search
Locations
iCloud Drive
Nextcloud
Recently Deleted
Favourites
Documents
Tags
Red
Orange
Yellow
Green
Recents
Browse


22:49 Mon Jan 21
Documents
1 days ago
Photos
1 days ago
Concept.docx
6 minutes ago, 11 KB
Nextcloud Manual.pdf
1 days ago, 4.4 MB
Nextcloud.mp4
1 days ago, 452 KB
Nextcloud.png
1 days ago, 36 KB
2 folders, 4 files 4.9 MB
Files
Favorites
Media
More
Nextcloud Manual.pdf
Nextcloud
Nextcloud User Manual
Release 15
The Nextcloud developers

22:45

Monday, January 21

NEXTCLOUD TALK now

Frank Karlitschek wants to talk with you

NEXTCLOUD TALK now

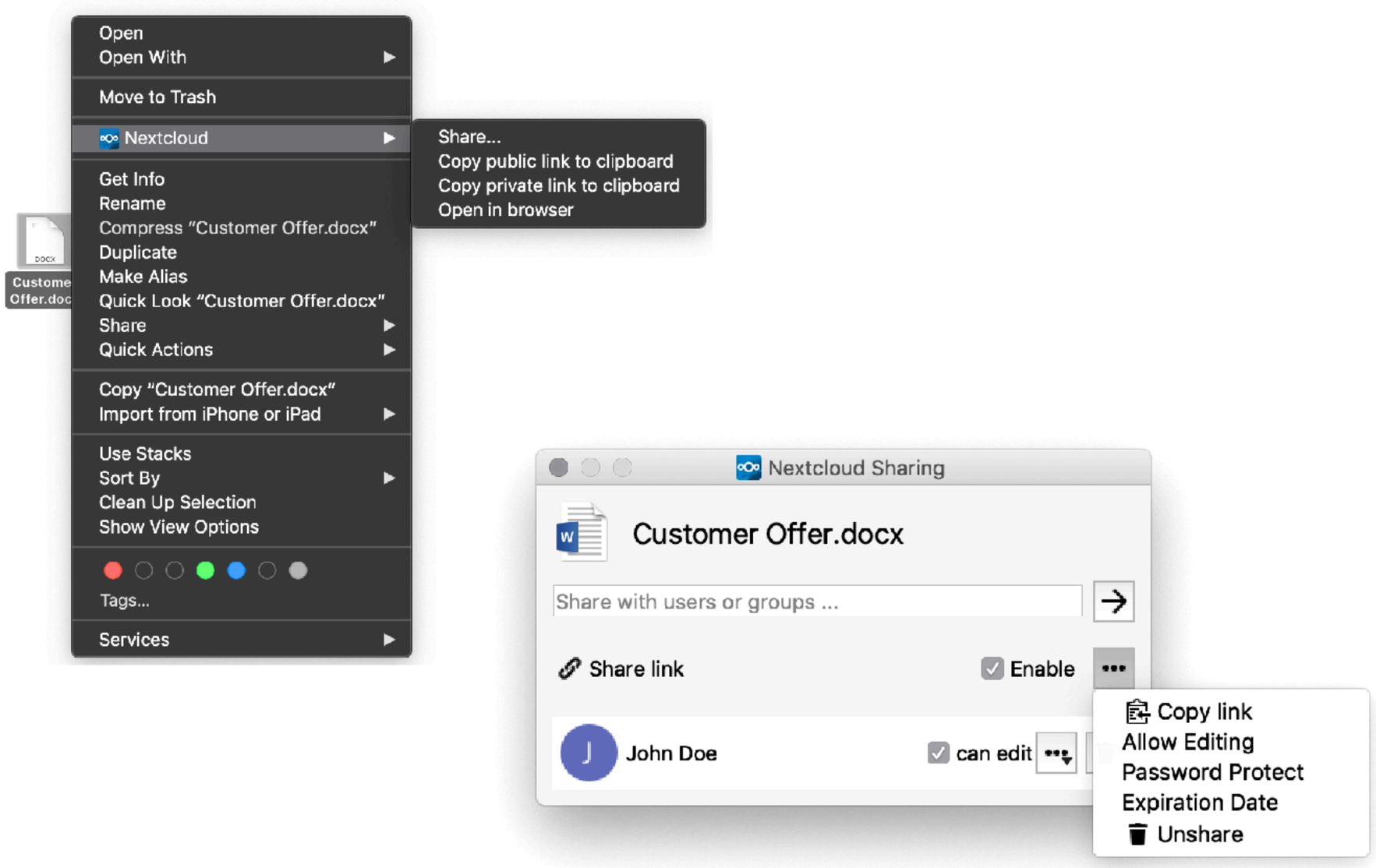
Frank Karlitschek
@John Doe Can you have a look at this contract here? What do you think?

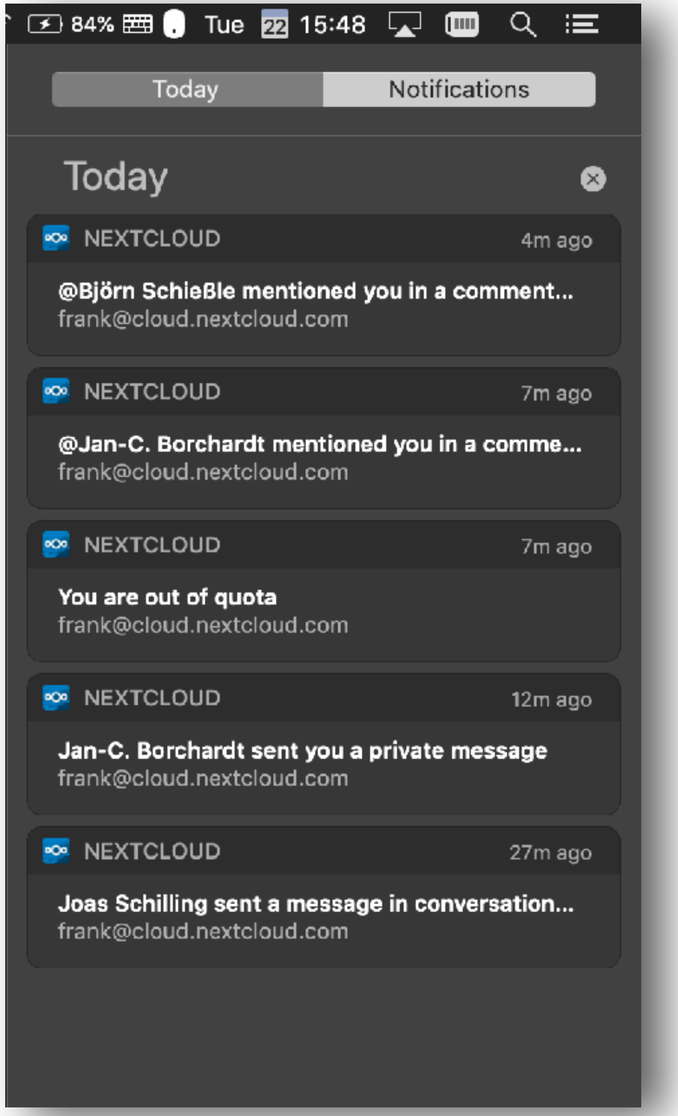
NEXTCLOUD 1m ago

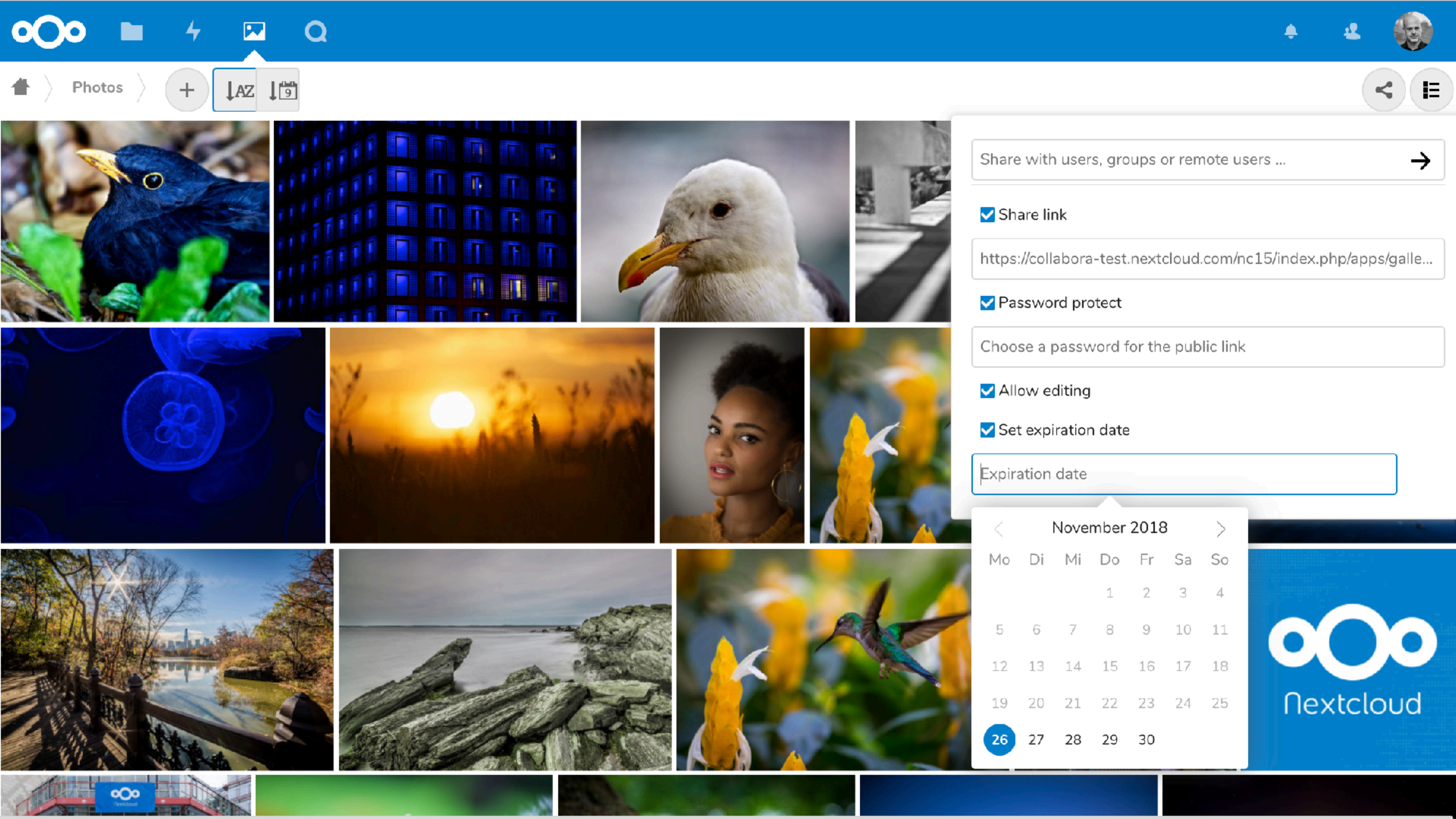
Comments
@Frank Karlitschek mentioned you in a comment on “Concept.docx”

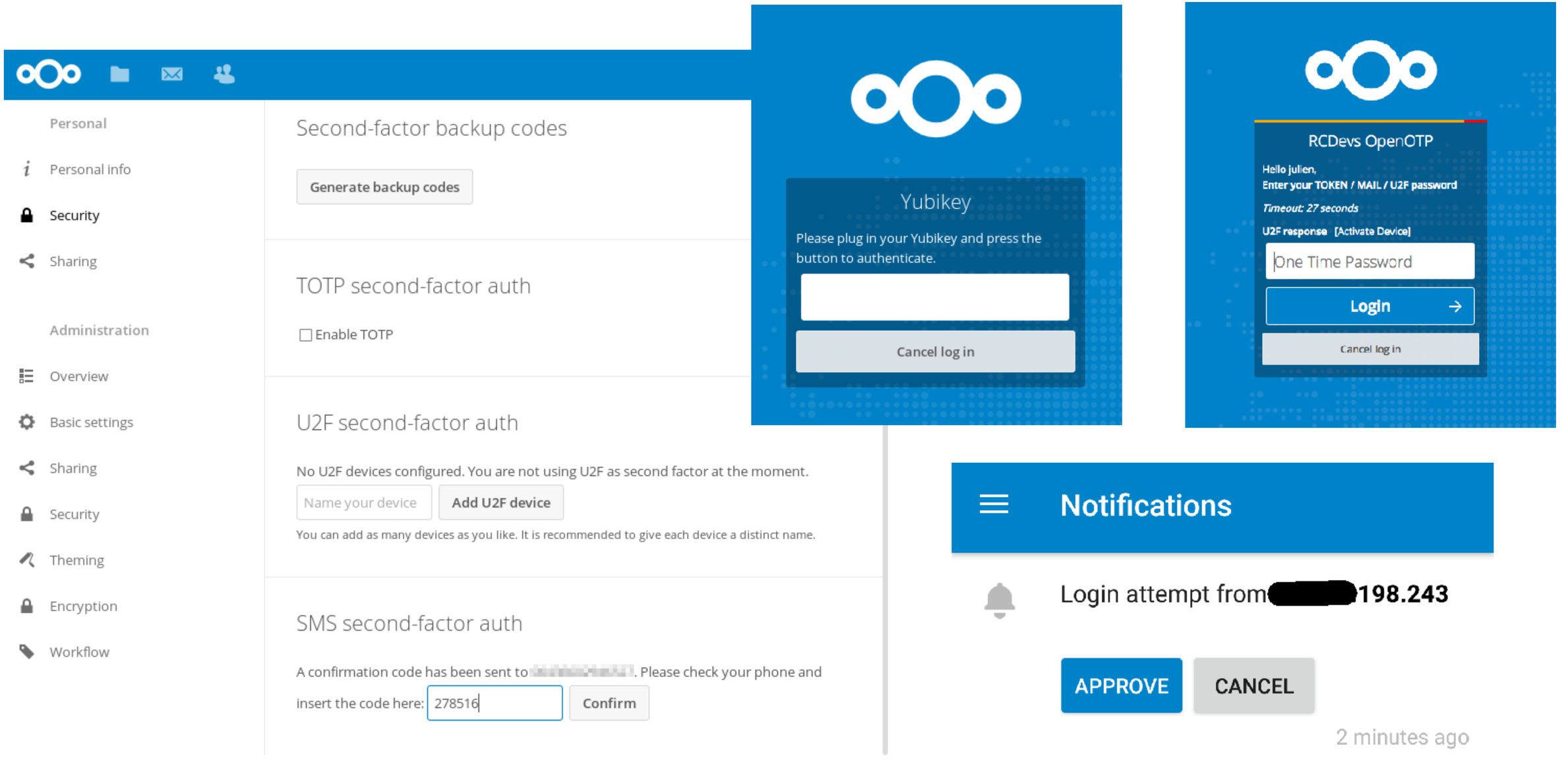
NEXTCLOUD 3m ago

Admin_Notifications
Out of quota warning


Open
Open With
Move to Trash
Nextcloud
Get Info
Rename
Compress "Customer Offer.docx"
Duplicate
Make Alias
Quick Look "Customer Offer.docx"
Share
Quick Actions
Copy "Customer Offer.docx"
Import from iPhone or iPad
Use Stacks
Sort By
Clean Up Selection
Show View Options
Tags...
Services
Share...
Copy public link to clipboard
Copy private link to clipboard
Open in browser
Nextcloud Sharing
Customer Offer.docx
Share with users or groups ...
Share link
Enable
John Doe
can edit
Copy link
Allow Editing
Password Protect
Expiration Date
Unshare


84%
Tue 22 15:48
Today
Notifications
Today
NEXTCLOUD 4m ago
@Björn Schießle mentioned you in a comment...
frank@cloud.nextcloud.com
NEXTCLOUD 7m ago
@Jan-C. Borchardt mentioned you in a comme...
frank@cloud.nextcloud.com
NEXTCLOUD 7m ago
You are out of quota
frank@cloud.nextcloud.com
NEXTCLOUD 12m ago
Jan-C. Borchardt sent you a private message
frank@cloud.nextcloud.com
NEXTCLOUD 27m ago
Joas Schilling sent a message in conversation...
frank@cloud.nextcloud.com


Photos
Share with users, groups or remote users ...
Share link
https://collabora-test.nextcloud.com/nc15/index.php/apps/galle...
Password protect
Choose a password for the public link
Allow editing
Set expiration date
Expiration date
November 2018
Mo Di Mi Do Fr Sa So
1 2 3 4
5 6 7 8 9 10 11
12 13 14 15 16 17 18
19 20 21 22 23 24 25
26 27 28 29 30
Nextcloud


Personal
Personal info
Security
Sharing
Administration
Overview
Basic settings
Sharing
Security
Theming
Encryption
Workflow
Second-factor backup codes
Generate backup codes
TOTP second-factor auth
Enable TOTP
U2F second-factor auth
No U2F devices configured. You are not using U2F as second factor at the moment.
Name your device
Add U2F device
You can add as many devices as you like. It is recommended to give each device a distinct name.
SMS second-factor auth
A confirmation code has been sent to . Please check your phone and insert the code here: 278516
Confirm
Yubikey
Please plug in your Yubikey and press the button to authenticate.
Cancel log in
RCDevs OpenOTP
Hello julien,
Enter your TOKEN / MAIL / U2F password
Timeout: 27 seconds
U2F response [Activate Device]
One Time Password
Login
Cancel log in
Notifications
Login attempt from [redacted]198.243
APPROVE
CANCEL
2 minutes ago

Personal info
Security
Accessibility
Sharing
Privacy

Administration
Overview
Basic settings
Sharing
Security
LDAP / AD integration
Theming
Groupware
Tag management

Suspicious login detection

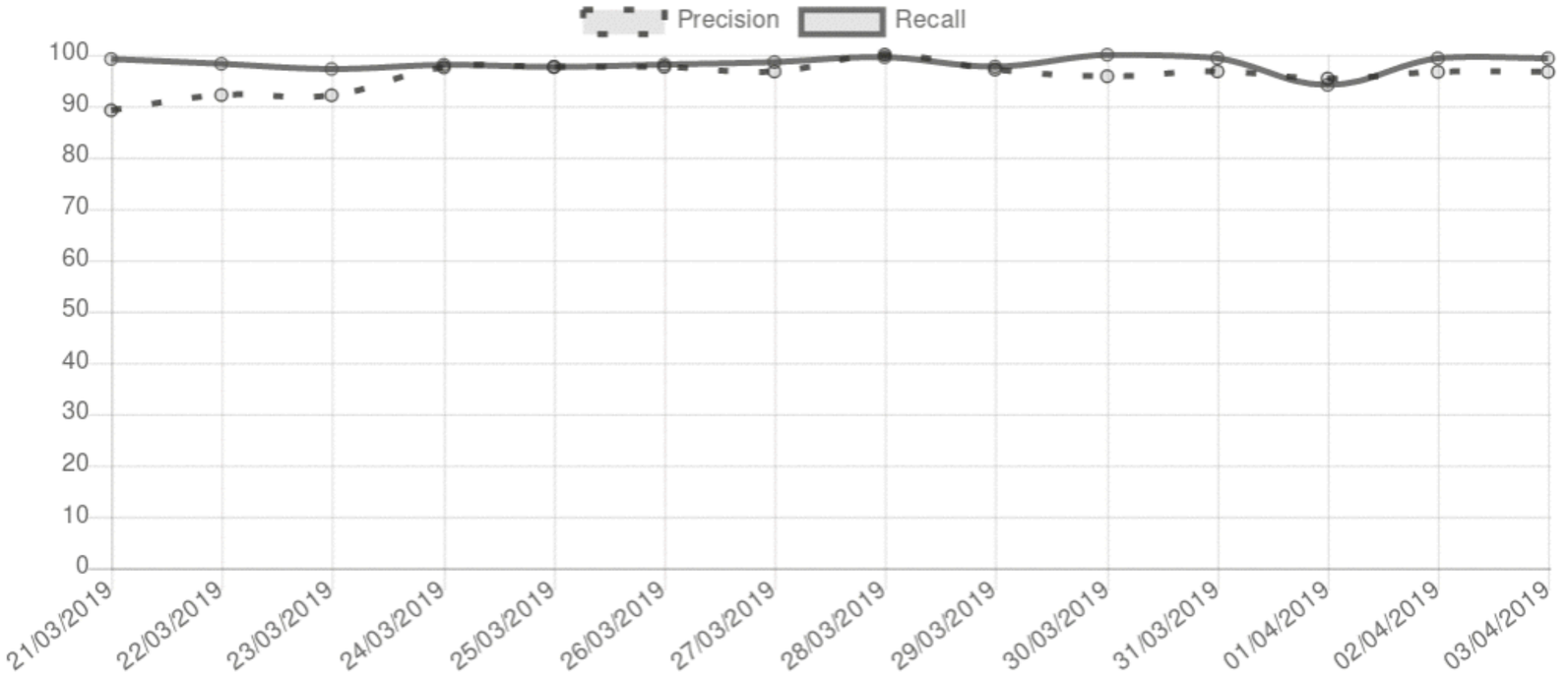
The suspicious login app is enabled on this instance. It will keep track of IP addresses users successfully log in from and build a classifier that warns if a new login comes from a suspicious IP address.

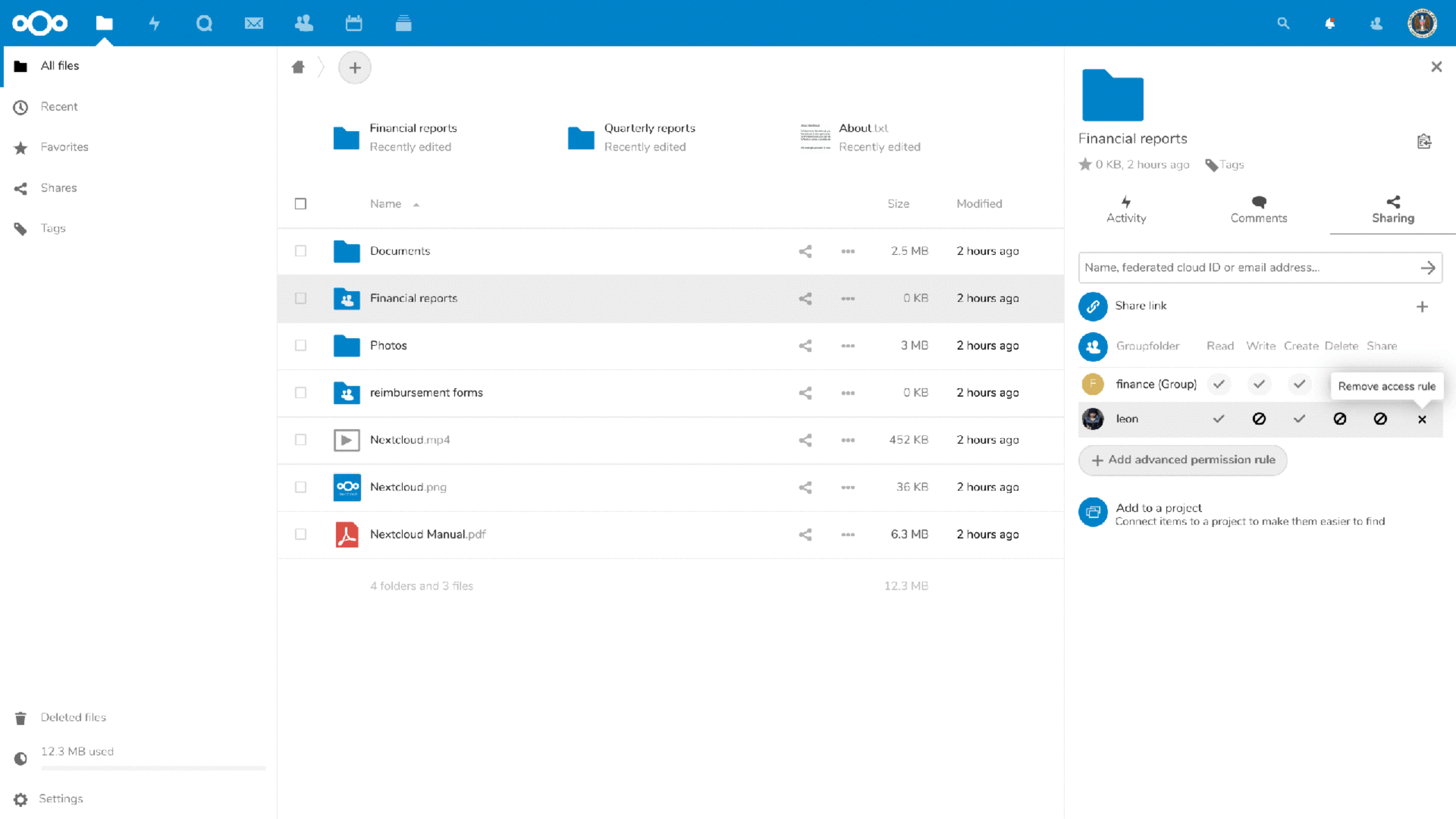
Training data statistics

So far the app has captured 258058 logins (including client connections), of which 591 are distinct (IP, UID) tuples.

Classifier model statistics

During evaluation, the latest model (trained 18 hours ago) has shown to capture 99.315% of all suspicious logins (recall), whereas 96.667% of the logins classified as suspicious are indeed suspicious (precision). Below you see a visualization of historic model performance.




All files
Recent
Favorites
Shares
Tags
Deleted files
12.3 MB used
Settings
Financial reports
Recently edited
Quarterly reports
Recently edited
About.txt
Recently edited
Name
Size
Modified
Documents 2.5 MB 2 hours ago
Financial reports 0 KB 2 hours ago
Photos 3 MB 2 hours ago
reimbursement forms 0 KB 2 hours ago
Nextcloud.mp4 452 KB 2 hours ago
Nextcloud.png 36 KB 2 hours ago
Nextcloud Manual.pdf 6.3 MB 2 hours ago
4 folders and 3 files 12.3 MB
Financial reports
0 KB, 2 hours ago
Tags
Activity
Comments
Sharing
Name, federated cloud ID or email address...
Share link
Groupfolder Read Write Create Delete Share
finance (Group)
Remove access rule
leon
Add advanced permission rule
Add to a project
Connect items to a project to make them easier to find

Please check the wiki for documentation related to the installation and the configuration of the Full Text Search within your Nextcloud

Full Next Search

Search Platform :
Select the app that will be used to index content and answer search queries.
ElasticSearch

Indexing Chunk Size :
Lower the value if the server is short on memory.
20

Elastic Search

Address of the Servlet:
Include your credential in case authentication is required.
http://[illegible]:pass[illegible]@localhost:9200/

Index :
Name of your index.
my_in[illegible]

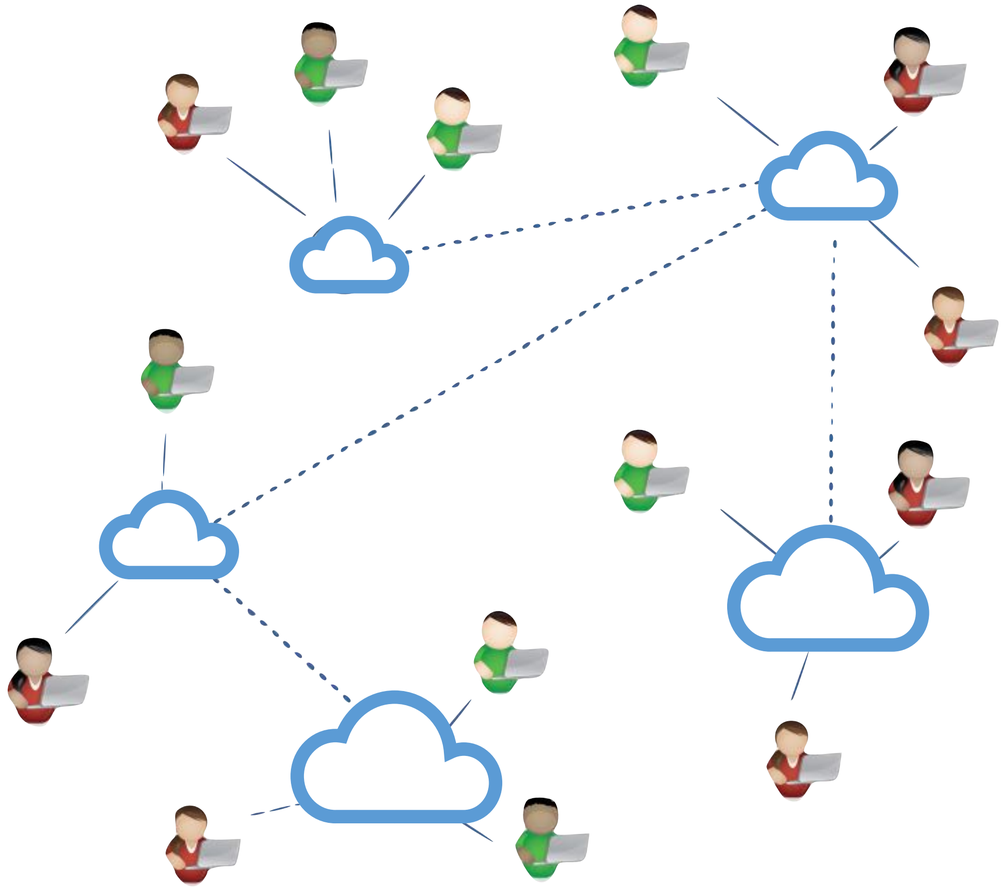
Files

External Files:
Index the content of external files.

Federation

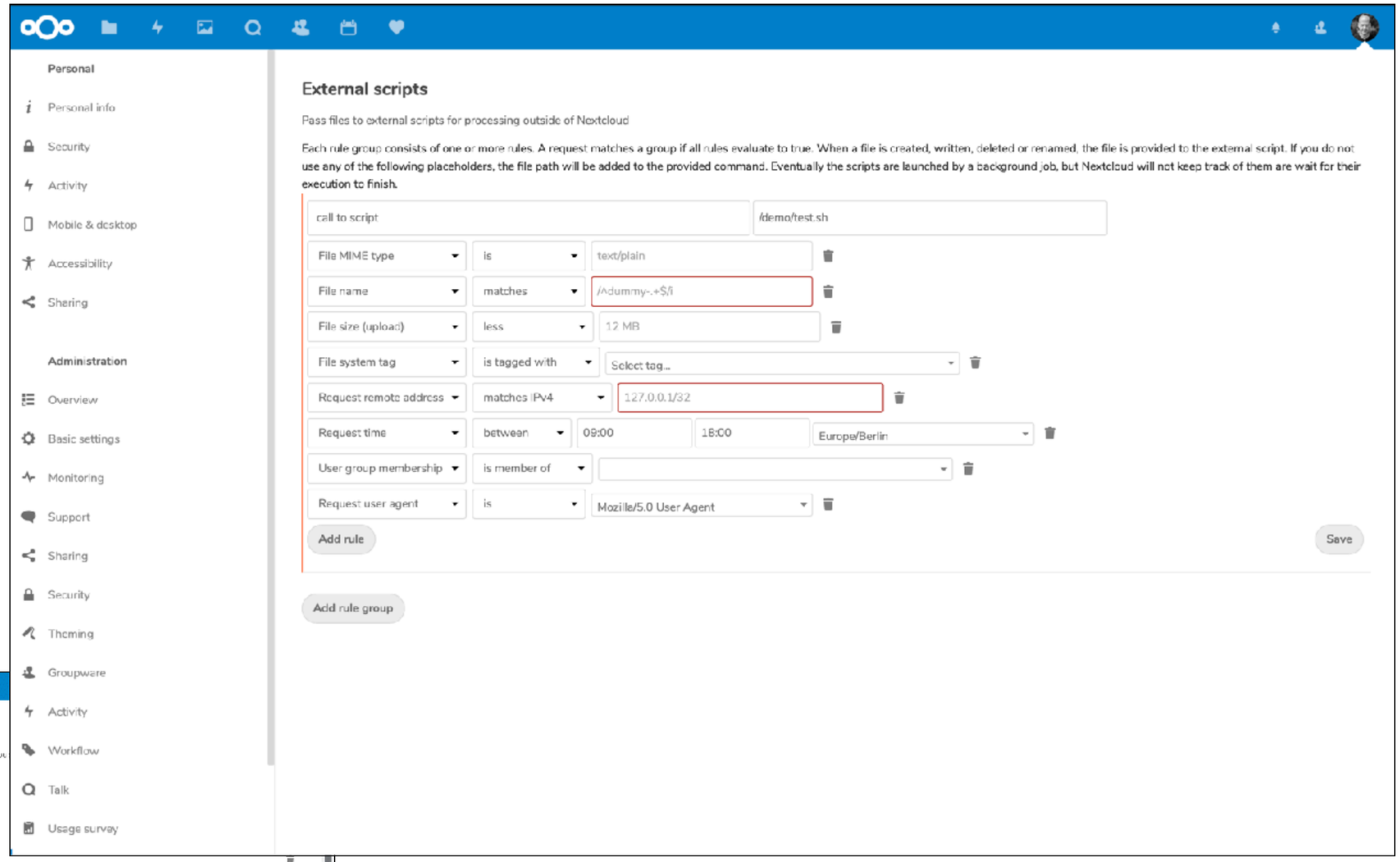
- Server 2 Server sharing
- Folder / Files
- Behaves as one service
- Open Cloud Mesh
- Trusted servers
- Autocompletion with Lookup Server
- Access control via File Firewall

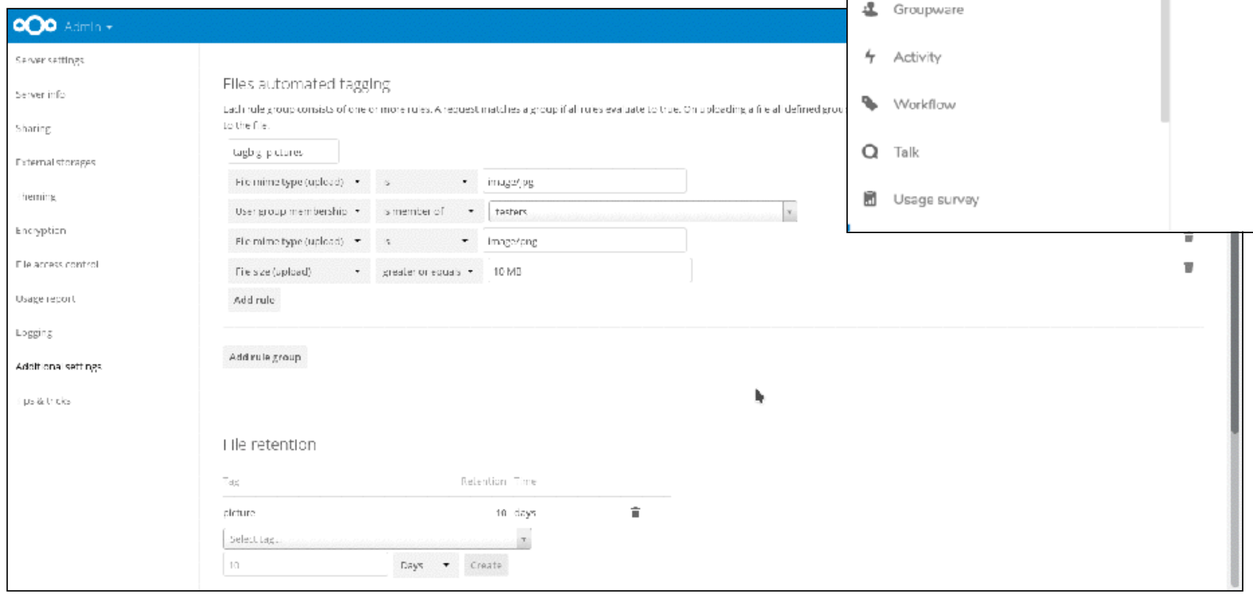
OPENCLOUDMESH



⇒ Workflows

Automatic tagging
File retention
Calling of external scripts
PDF conversion
Optional Camunda integration



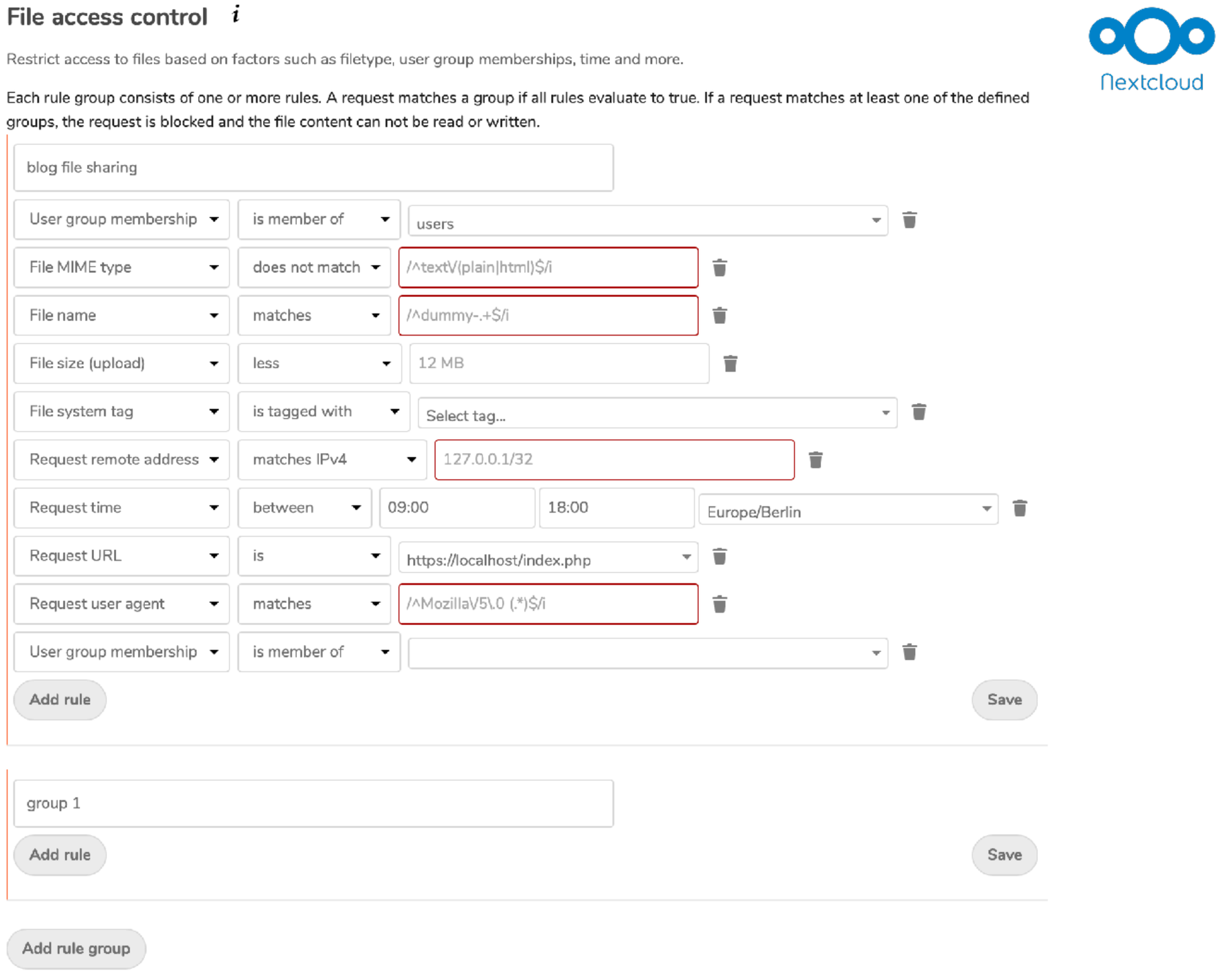


File Access Control

Block access and sharing

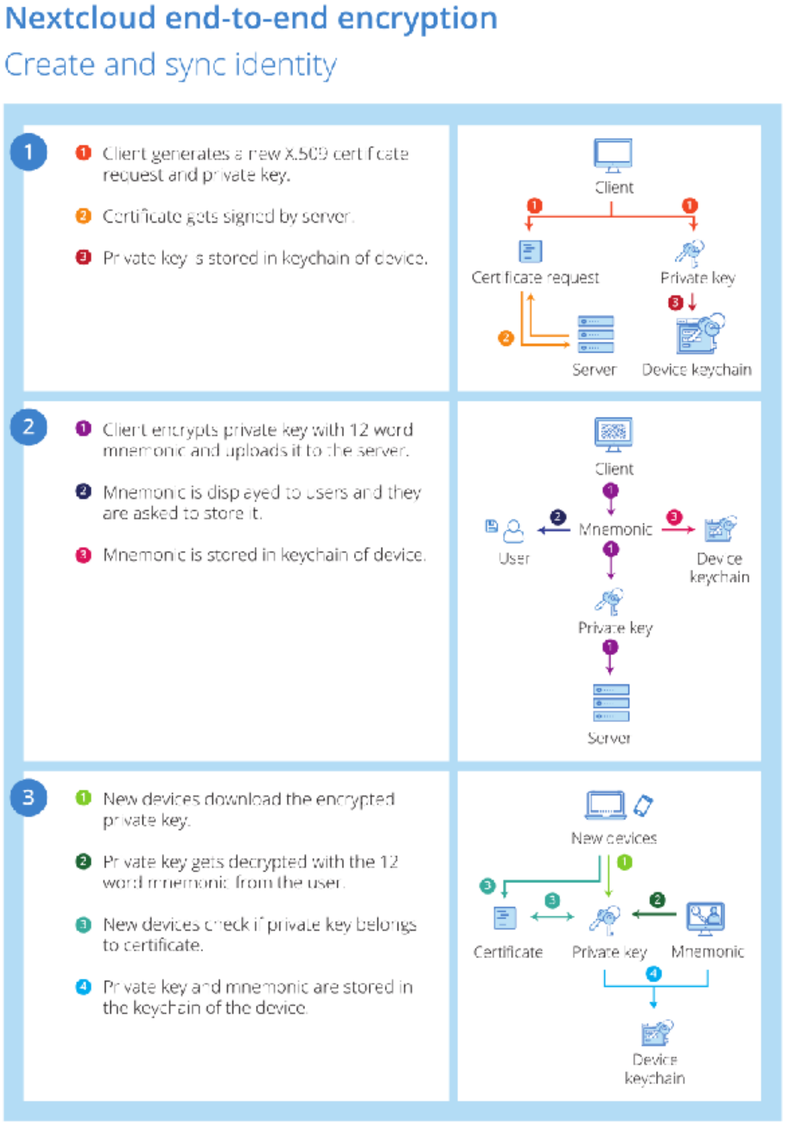
Based on:

- IP
- tag
- LDAP group
- time
- name
- mime type
- size
- user agent
- …



End 2 End Encryption

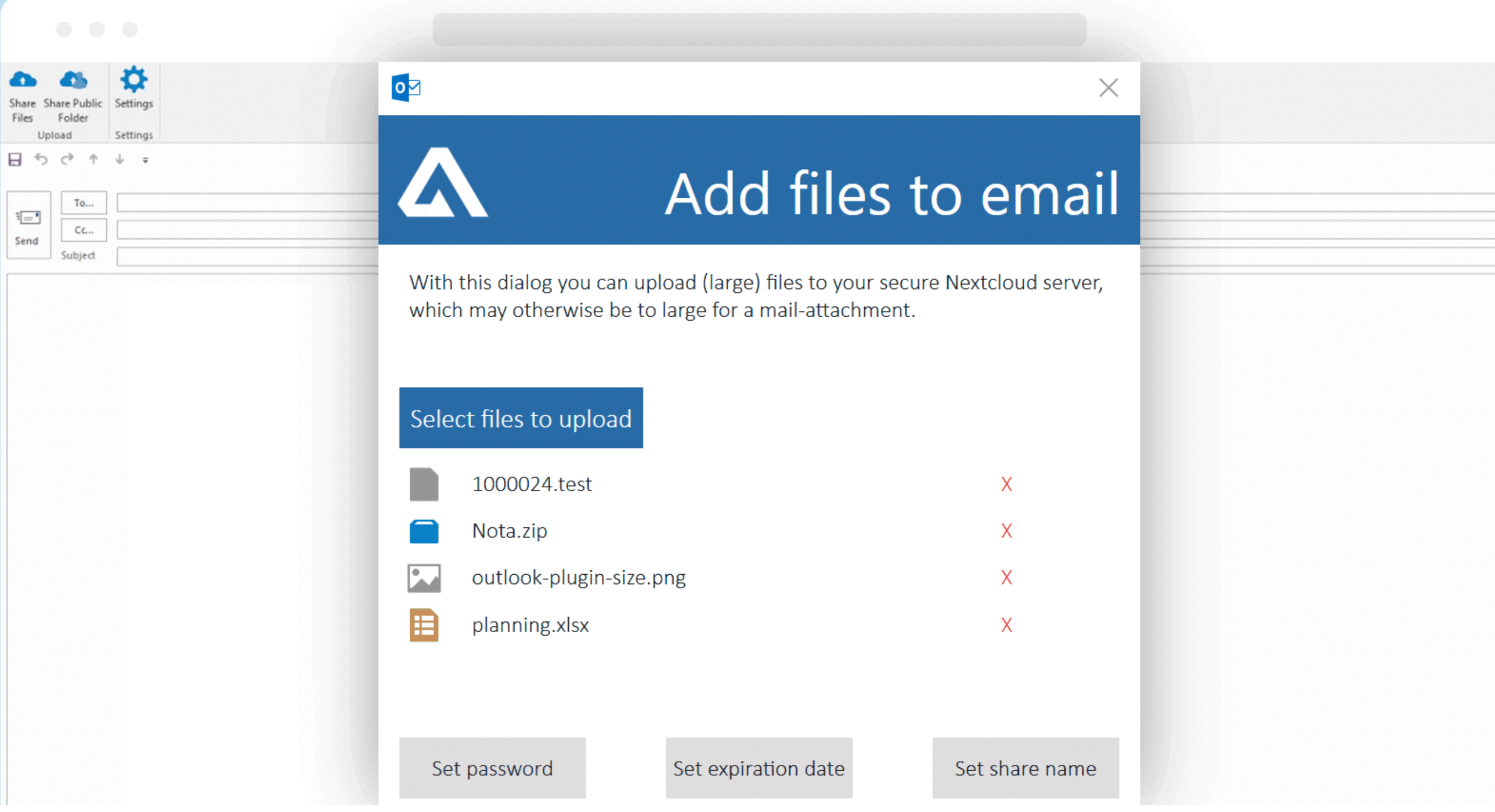
- Most requested feature
- Final in Nextcloud 13
- Supported in
  - iOS
  - Android
  - Mac
  - Windows
  - Linux
- Enterprise grade key management
- Optional Key Recovery



Global Scale

- Scalability > 500k users
- Global distribution
- Cost efficiency

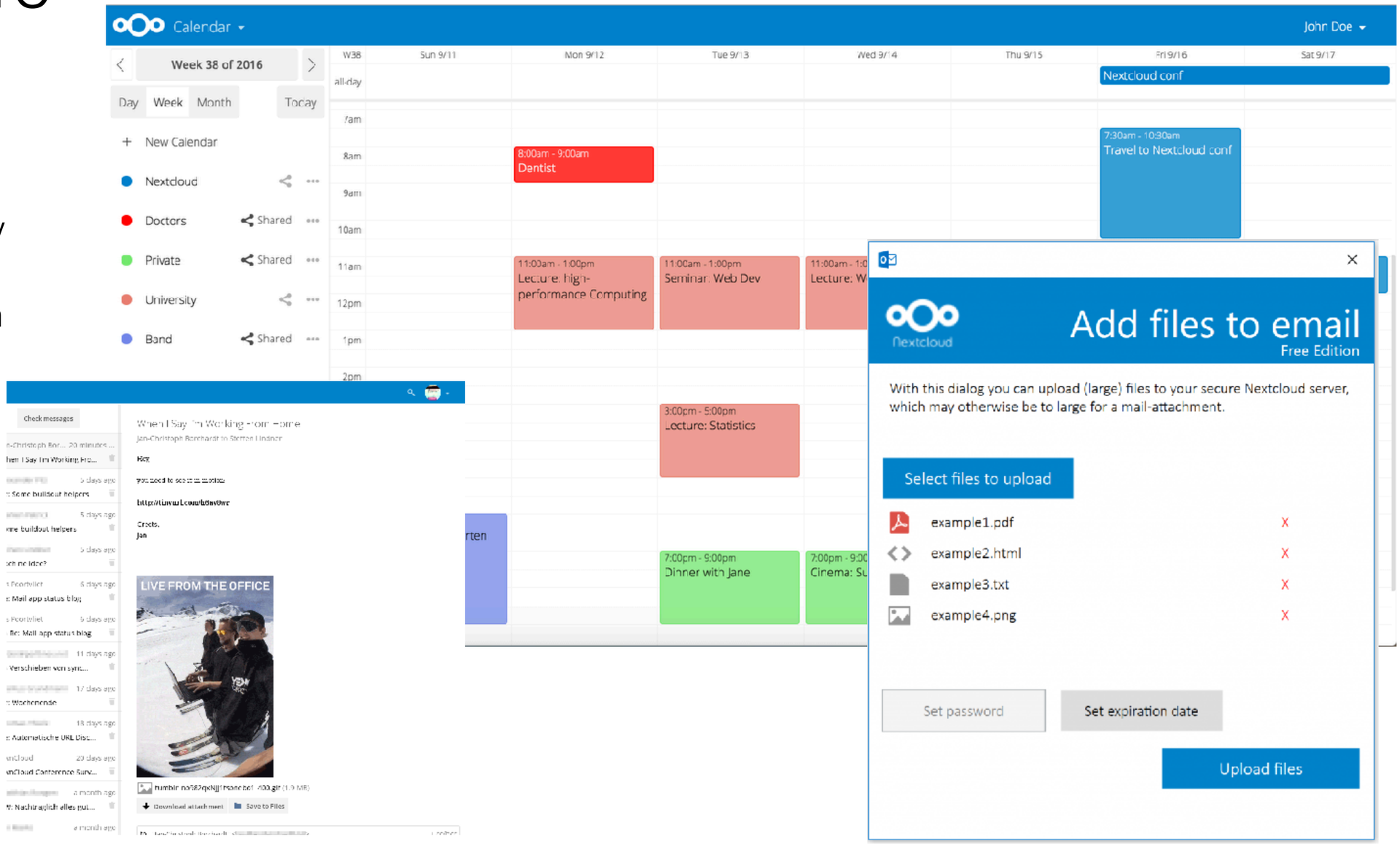
- Independent nodes
- Federated sharing between nodes
- Lookup Server
- Global Site Selector
- Balancer
- In production for 20M users

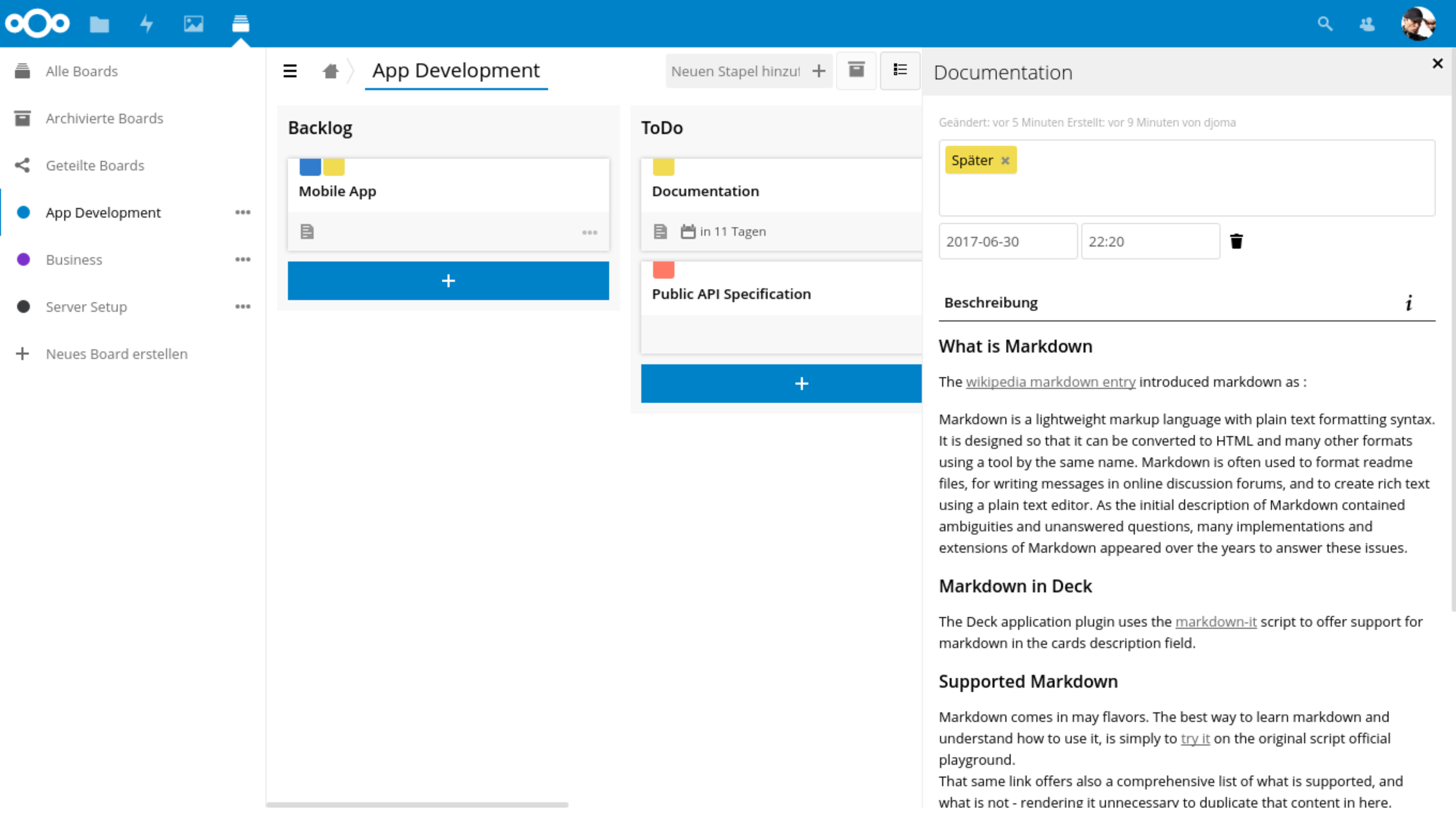

Share Files
Share Public Folder
Upload
Settings
Settings
Send
To...
Cc...
Subject
Add files to email
With this dialog you can upload (large) files to your secure Nextcloud server, which may otherwise be to large for a mail-attachment.
Select files to upload
1000024.test
X
Nota.zip
X
outlook-plugin-size.png
X
planning.xlsx
X
Set password
Set expiration date
Set share name

Groupware

- Calendar
- Contacts
- Email

- CalDAV / CardDAV
- Outlook plugin
- Thunderbird plugin




Alle Boards
Archivierte Boards
Geteilte Boards
App Development
Business
Server Setup
Neues Board erstellen
App Development
Neuen Stapel hinzu
Backlog
Mobile App
ToDo
Documentation
in 11 Tagen
Public API Specification
Documentation
Geändert: vor 5 Minuten Erstellt: vor 9 Minuten von djoma
Später
2017-06-30
22:20
Beschreibung
What is Markdown
The wikipedia markdown entry introduced markdown as :
Markdown is a lightweight markup language with plain text formatting syntax. It is designed so that it can be converted to HTML and many other formats using a tool by the same name. Markdown is often used to format readme files, for writing messages in online discussion forums, and to create rich text using a plain text editor. As the initial description of Markdown contained ambiguities and unanswered questions, many implementations and extensions of Markdown appeared over the years to answer these issues.
Markdown in Deck
The Deck application plugin uses the markdown-it script to offer support for markdown in the cards description field.
Supported Markdown
Markdown comes in may flavors. The best way to learn markdown and understand how to use it, is simply to try it on the original script official playground.
That same link offers also a comprehensive list of what is supported, and what is not - rendering it unnecessary to duplicate that content in here.

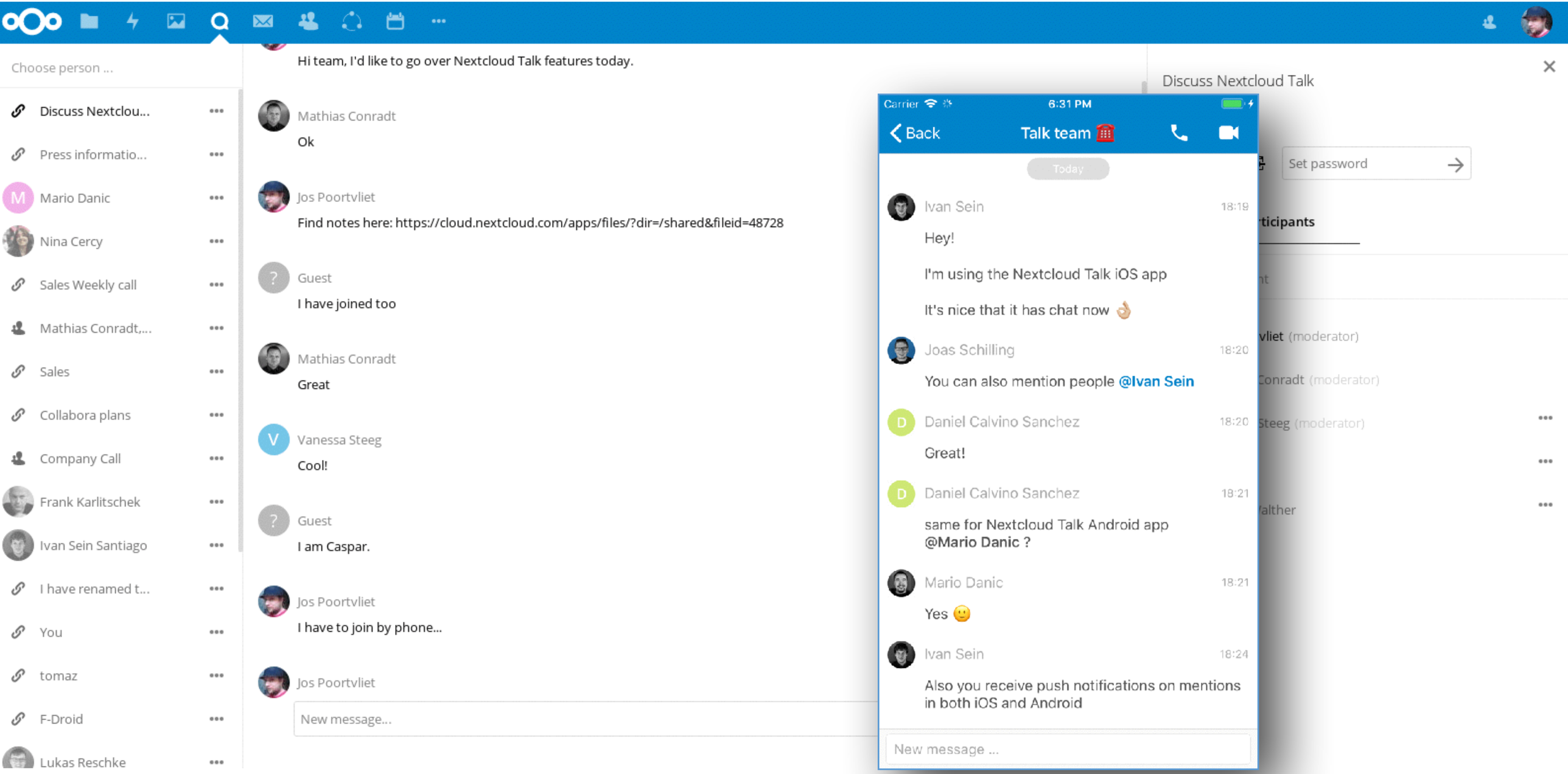
Nextcloud Talk

Communication Product

- Alternative to:
  - Zoom
  - Skype for Business
  - WebEx
  - Microsoft Teams
  - Slack

- Audio / Video calls
- Chat
- Integrated into Nextcloud Files
- Integrated into Collabora Online
- Self Hosted

- Webinar use-case
- Phone use-case
- Group chat use-case


Choose person ...
Discuss Nextclou...
Press informatio...
Mario Danic
Nina Cercy
Sales Weekly call
Mathias Conradt,...
Sales
Collabora plans
Company Call
Frank Karlitschek
Ivan Sein Santiago
I have renamed t...
You
tomaz
F-Droid
Lukas Reschke
Hi team, I'd like to go over Nextcloud Talk features today.
Mathias Conradt
Ok
Jos Poortvliet
Find notes here: https://cloud.nextcloud.com/apps/files/?dir=/shared&fileid=48728
Guest
I have joined too
Mathias Conradt
Great
Vanessa Steeg
Cool!
Guest
I am Caspar.
Jos Poortvliet
I have to join by phone...
Jos Poortvliet
New message...
Discuss Nextcloud Talk
Set password
ticipants
vliet (moderator)
Conradt (moderator)
Steeg (moderator)
Walther
Carrier
6:31 PM
Back
Talk team
Today
Ivan Sein 18:19
Hey!
I'm using the Nextcloud Talk iOS app
It's nice that it has chat now
Joas Schilling 18:20
You can also mention people @Ivan Sein
Daniel Calvino Sanchez 18:20
Great!
Daniel Calvino Sanchez 18:21
same for Nextcloud Talk Android app @Mario Danic ?
Mario Danic 18:21
Yes
Ivan Sein 18:24
Also you receive push notifications on mentions in both iOS and Android
New message ...

New conversation ...

- Nextcloud internal
- Jan-C. Borchardt, Joas Schilling
- Marius Blüm
- Sales Weekly call
- Mgmt Coordination
- Mario Danic
- test run
- Marie Gutbub
- Berliners
- storj.io discussion
- discuss puri.sm
- Frank Karlitschek
- Barthélémy Briand
- Jan-C. Borchardt
- Talk with Marcel
- Camila Ayres
- Frank Karlitschek, Julius Härtl, Ar...
- Univention

Joas Schilling created the conversation 1:17:50 PM

Joas Schilling added you

Joas Schilling 1:18:00 PM

Hi **Jos Poortvliet** you can test it now

terms_of_service-1600x900.png

Jos Poortvliet 5:54:09 PM

14-logo.png

Jos Poortvliet 5:55:06 PM

Social Skill

* Commur
 * trust
 * negativi

conf talk ideas.txt

Jos Poortvliet

New message ...

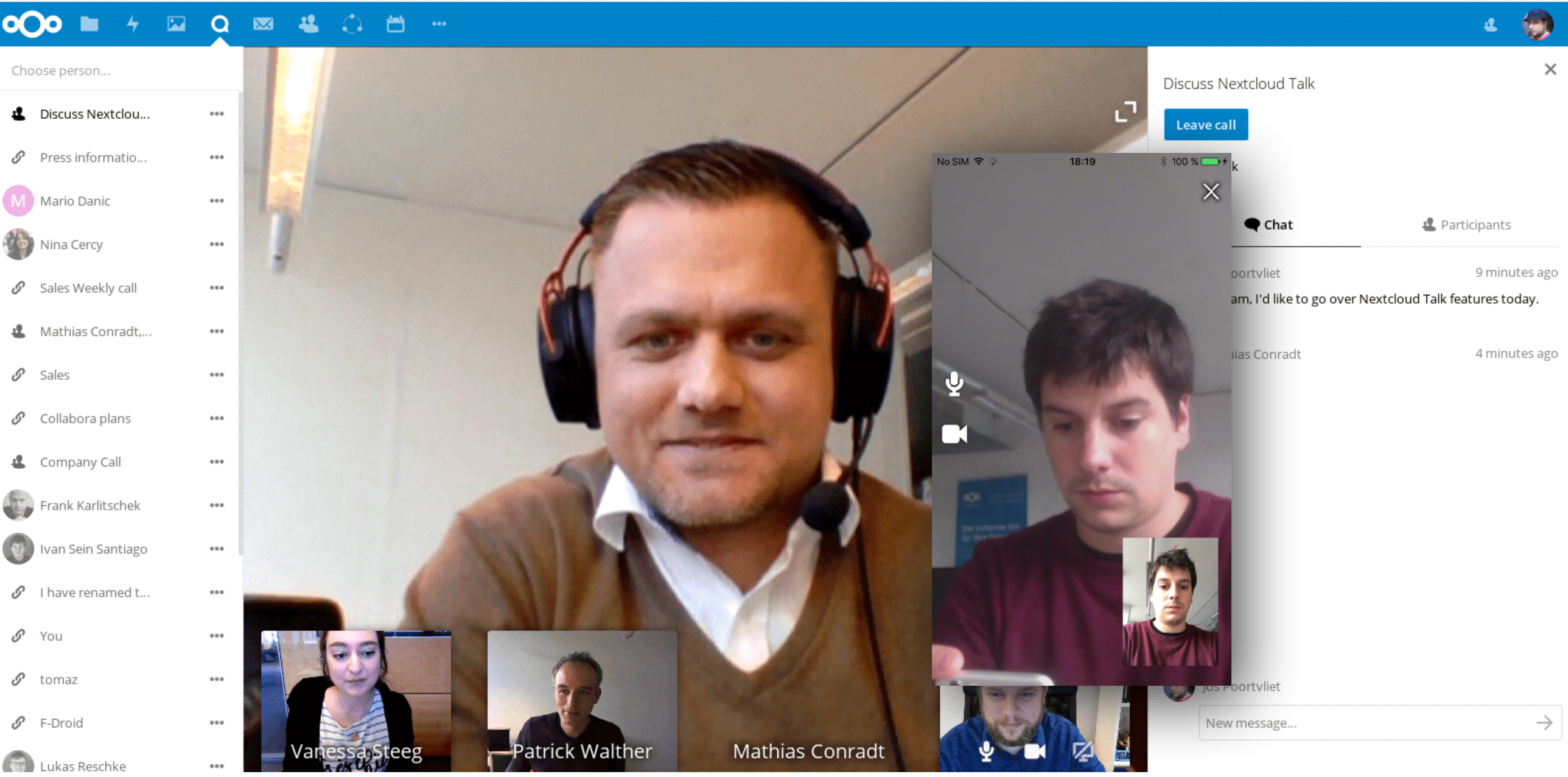
Conversation name

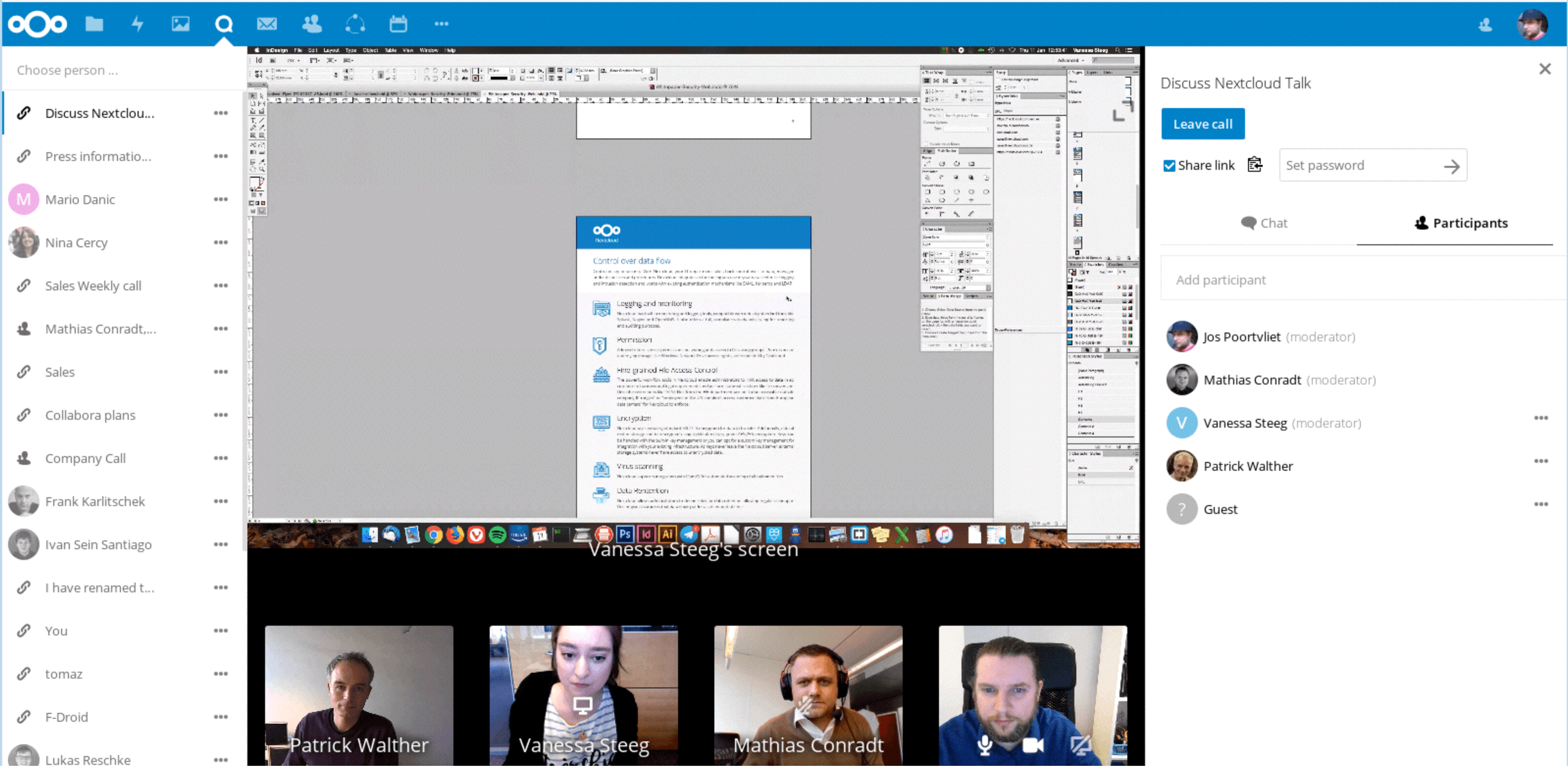
Start call | Share link

Participants

Add participant ...

- Jos Poortvliet (moderator)
- Joas Schilling (moderator)
- Jan-C. Borchardt


Choose person...
Discuss Nextclou...
Press informatio...
Mario Danic
Nina Cercy
Sales Weekly call
Mathias Conradt,...
Sales
Collabora plans
Company Call
Frank Karlitschek
Ivan Sein Santiago
I have renamed t...
You
tomaz
F-Droid
Lukas Reschke
Vanessa Steeg
Patrick Walther
Mathias Conradt
No SIM
18:19
100 %
Discuss Nextcloud Talk
Leave call
Chat
Participants
9 minutes ago
am, I'd like to go over Nextcloud Talk features today.
4 minutes ago
New message...


Choose person ...
Discuss Nextclou...
Press informatio...
Mario Danic
Nina Cercy
Sales Weekly call
Mathias Conradt,...
Sales
Collabora plans
Company Call
Frank Karlitschek
Ivan Sein Santiago
I have renamed t...
You
tomaz
F-Droid
Lukas Reschke
Control over data flow
Vanessa Steeg's screen
Patrick Walther
Vanessa Steeg
Mathias Conradt
Discuss Nextcloud Talk
Leave call
Share link
Set password
Chat
Participants
Add participant
Jos Poortvliet (moderator)
Mathias Conradt (moderator)
Vanessa Steeg (moderator)
Patrick Walther
Guest

The 6 Nextcloud Subscription benefits

The Nextcloud subscription includes everything that is needed to run Nextcloud in mission critical environments.

Expertise

- A full Proof of Concept package where our experts help you integrate Nextcloud in your infrastructure.
- Migration assistance: We help to migrate from your previous solution.
- Upgrade support: We ensure your upgrades go smooth: advise when to upgrade, stand-by help.
- Support delivered directly by the Nextcloud engineers who wrote the software.
- Dedicated Support Account Manager.
- Enterprise grade SLA up to 24/7.
- Long term support for stable Nextcloud releases up to 5/10 years.

Influence

- Influence on road map.
- Seat at the product advisory board.

Security

- Early notification about critical security issues.

File Edit View Insert Format Table Tools Help

Description Collabora.odt

Default Style | Open Sans | 12

Company profile
full company name: Collabora Productivity Ltd.
company address + phone + fax:
The Platinum Building
St John's Innovation Park
Cambridge
CB4 0DS
United Kingdom

Telephone: +44 (0)1223 362967
Fax: +44 (0) 1223 351966

. **4000 signs (including blanks)**

Collabora is powered by the largest team of certified LibreOffice engineers in the world and is one of the leading contributors to the LibreOffice codebase. Collabora is the driving force behind putting LibreOffice in the Cloud and provides a range of business-hardened products and consulting to enterprise and government.

Collabora Productivity provides you the powerful on-premise office suites, that enable you to access documents, author new content and work collaboratively. Interested to start working with their products? Try out the demo forms:
https://www.collaboraoffice.com/demo/

Our flagship products, Collabora Online and Collabora Office, are 100% Open Source, using new and existing code that has been carefully tested in-house and packaged for enterprise use. Enterprise-specific features exclusive to Collabora Online and Collabora Office include Long Term Support, incremental updates, and active directory integration.

Search: | Page 1 of 6 | 1,848 words, 12,985 characters | Insert | Standard selection | German (Germany) | Document saved | 3 users | 100%

Description Collabora.odt
61 KB, 4 minutes ago Tags

Activities Comments Sharing Versions

Name, federated cloud ID or email address...

Share link Enable
jona (conversation) Can edit
Roeland Douma Can edit
Camila Ayres Can edit

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full company name: Collabora Productivity Ltd.
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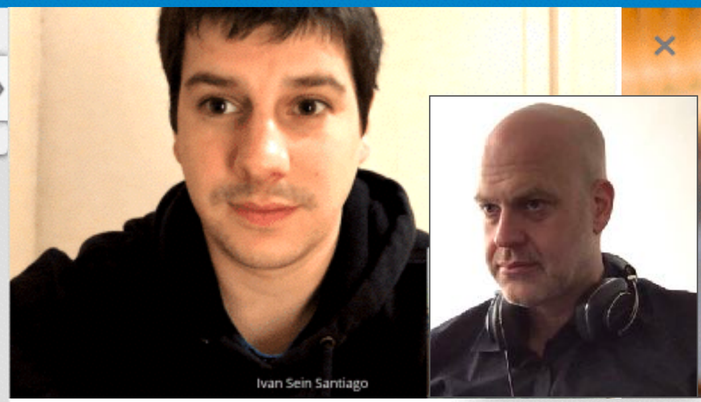


Chat Comments Sharing Versions

Leave call

However I think that the "News" section needs more work

Mary Server shall we edit it together?

Mary Server 2 minutes ago

sure

let me start a call for better communication

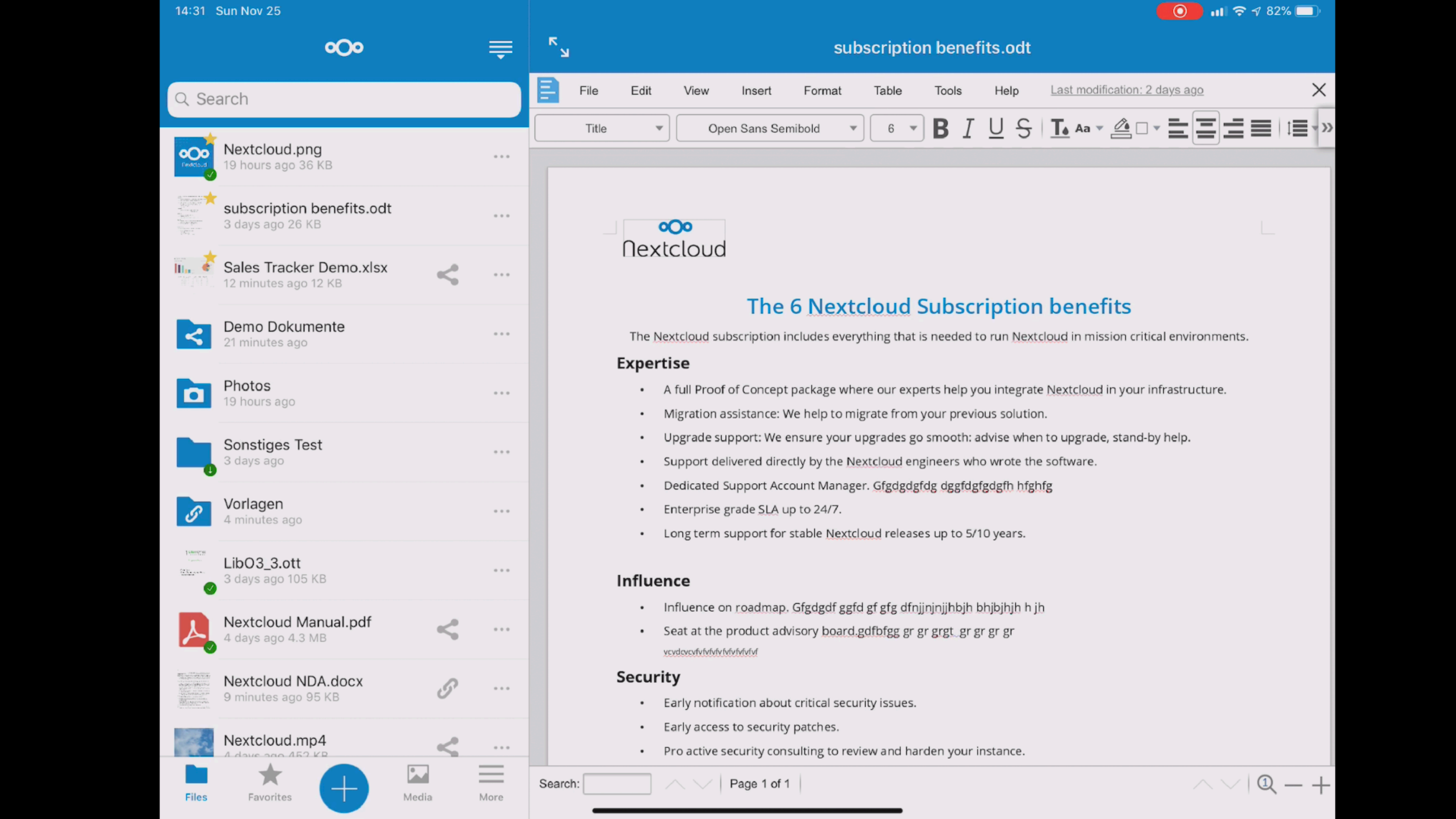
Mary Server started a call a minute ago

You joined the call a minute ago

John Board

James Data

I would like the input too of @jame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The 6 Nextcloud Subscription benefits
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Expertise
A full Proof of Concept package where our experts help you integrate Nextcloud in your infrastructure.
Migration assistance: We help to migrate from your previous solution.
Upgrade support: We ensure your upgrades go smooth: advise when to upgrade, stand-by help.
Support delivered directly by the Nextcloud engineers who wrote the software.
Dedicated Support Account Manager. Gfgdgdgfdg dggfdgfgdgfh hfghfg
Enterprise grade SLA up to 24/7.
Long term support for stable Nextcloud releases up to 5/10 years.
Influence
Influence on roadmap. Gfgdgdf ggfd gf gfg dfnjjnjnjjhbjh bhjbjhjh h jh
Seat at the product advisory board.gdfbfgg gr gr grgt gr gr gr gr
ycvdcvcvfvfvfvfvfvfvfvfvf
Security
Early notification about critical security issues.
Early access to security patches.
Pro active security consulting to review and harden your instance.
Search:
Page 1 of 1

Nextcloud

Search all apps

Apps | App developer | Log in | Register

- All apps
- Authentication & authorization
- Customization
- Files
- Integration
- Monitoring
- Multimedia
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- Organization
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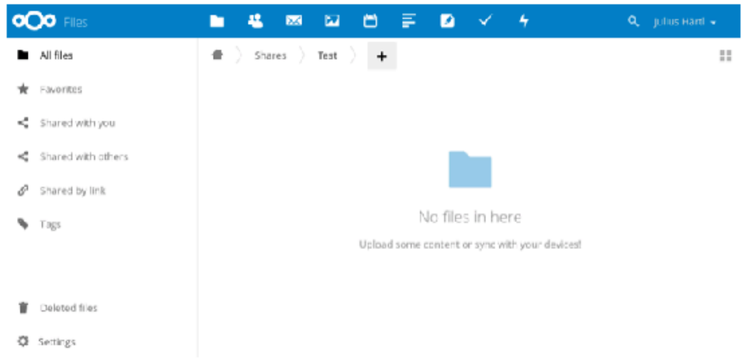
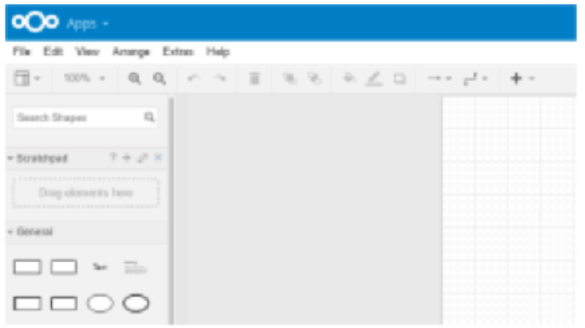


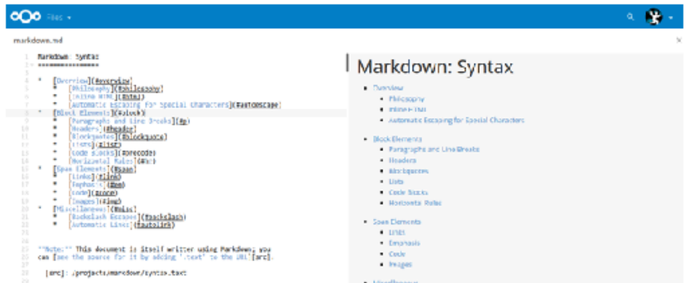
Direct Menu

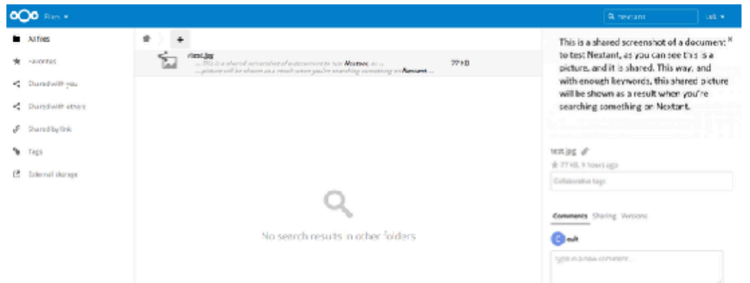
Provide easy access to all apps in the header.



Draw.io

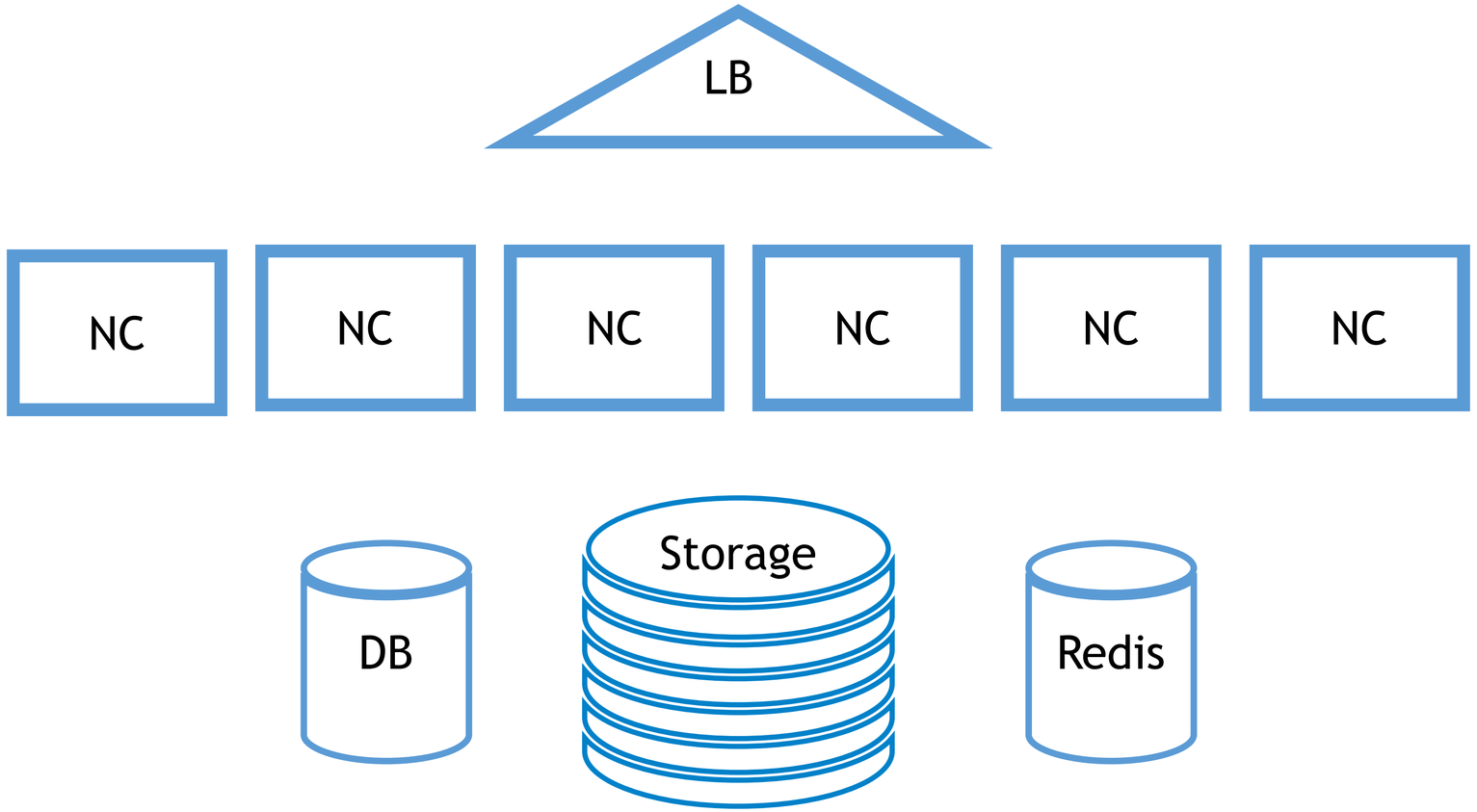
Draw.io intergration app





Nextcloud & Spectrum Scale

Architecture



Primary Storage

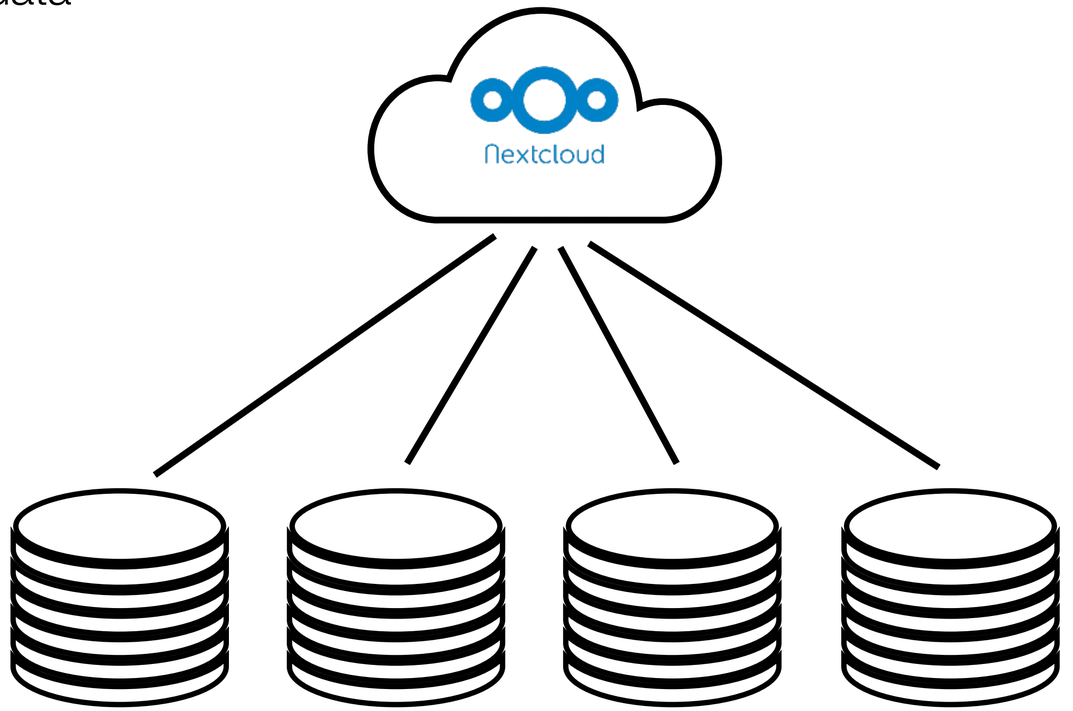
- S3 Object Store
- Swift Object Store
- NFS / Posix
- Spectrum Scale

- Local Snapshots

Data Access Engine

Nextcloud as central access point for all enterprise data

- SMB/CIFS
- Sharepoint
- S3
- Swift
- IBM Spectrum Scale
- FTP
- Dropbox
- Google Drive
- Local
- WebDAV
- Nextcloud

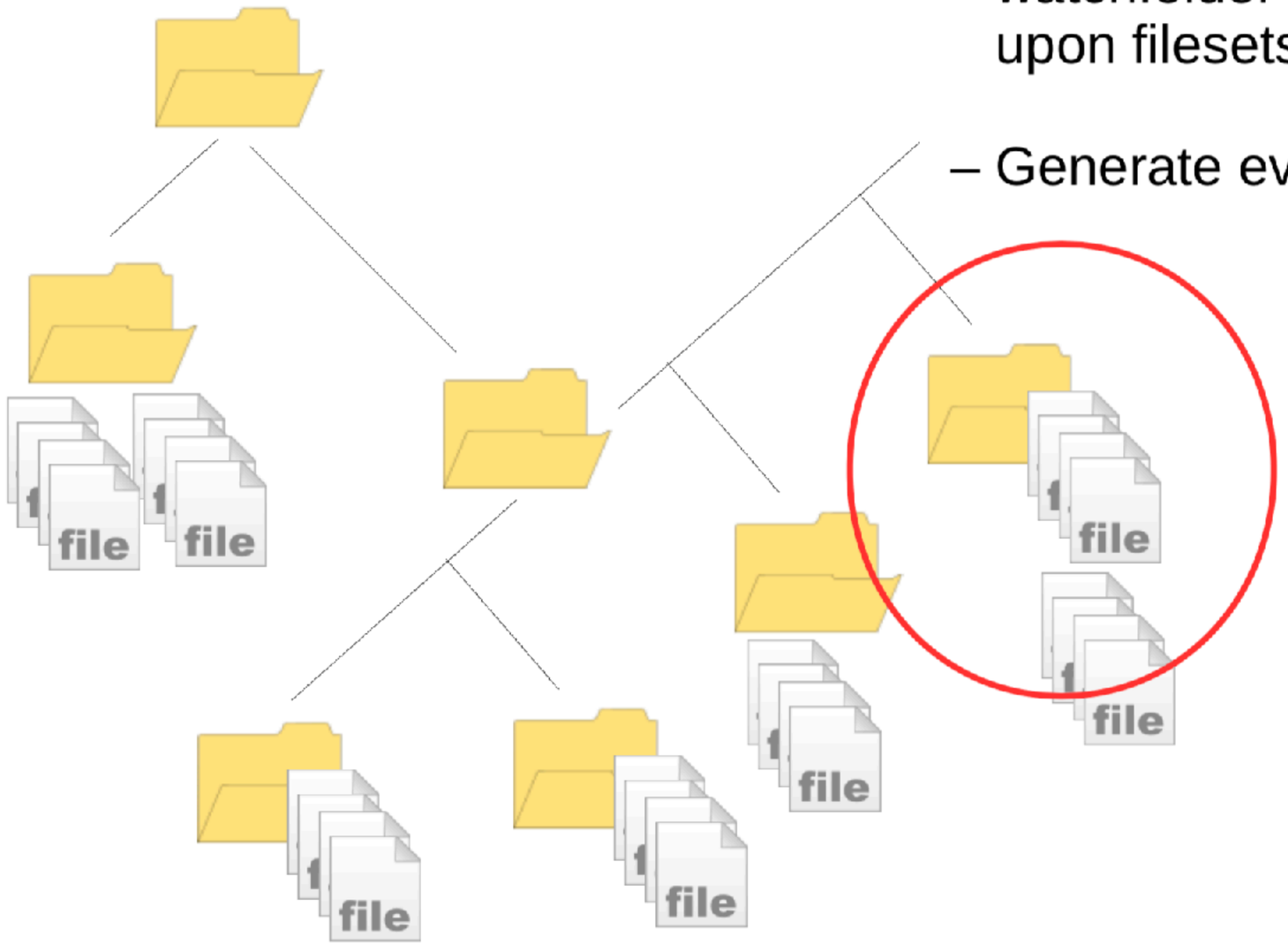


Mount by: user, group, global
Authentication: per user, global, cached
Central auditing, access control, authentication, clients

Data consistency ?

- Scanning
- Linux inotify
- CIFS notifications

Spectrum Scale Watch Folder



– watchfolder can be enabled upon filesets or directories

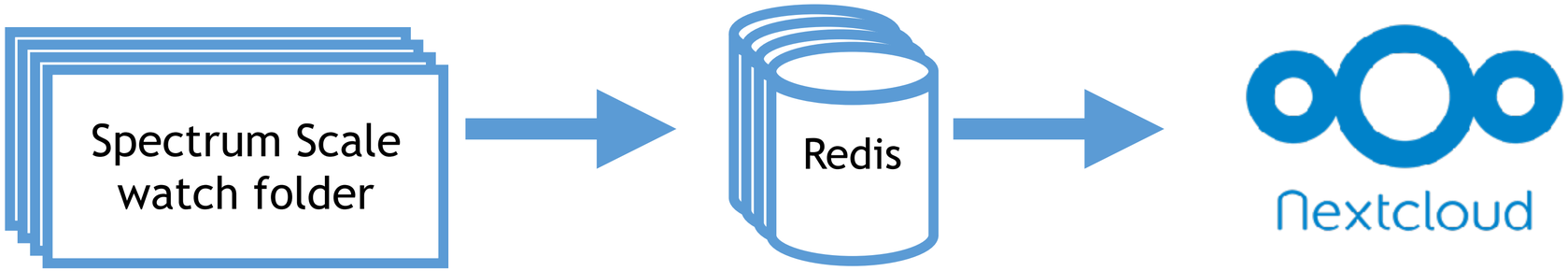
– Generate event on access for

… open, read, write …

– flexible according to Workload

– uses policy engine / LWE

Successful PoC



Summary

- Same User-Experience and features as Office 365 and Google Suite
- Hosted wherever wanted
- Compliant
- No foreign laws involved
- 100% open source and free software
- No vendor lock-in

Customers

> 200 customers

DEGES

ARD

Die Stuttgarter
Der Vorsorgeversicherer

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Konrad
Adenauer
Stiftung

MMEC MANNESMANN

BUNDESNOTARKAMMER
KÖRPERSCHAFT DES ÖFFENTLICHEN RECHTS

Nextcloud

Alternative to

- Dropbox
- Google Suite
- Office 365

but

- Self hosted
- 100% open source
- Distributed / Federated

Questions?

Frank Karlitschek

@fkarlitschek