

# File Cloud Innovation at ownCloud

27.01.2020



# Latest Innovations

Innovation at ownCloud since CS3 2019

- OIDC on all platforms
- New iOS app
  - 1.3 Pro features: Document Scanner, Annotations, iOS Shortcuts
  - Next: Branding, available offline, share sheet
- Android app architecture rewrite, better performance
  - Document providers
- Desktop client with native VFS (Virtual File System)
  - Enterprise provisioning (MSI)
- ownCloud groupware integration with Kopano, Ox and Univenton





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Größe

Geändert



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43 KB

vor 9 Stunden



Shared Files



0 KB

vor 9 Stunden



Photos



663 KB

vor 13 Tagen



ownCloud Manual.pdf



4.8 MB

vor 13 Tagen

3 Ordner und 1 Datei

5.5 MB

VerfassenAnsicht ▾Posteingang 1

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sovereignit.de[E-Mail-Konto hinzufügen](#)Alle ▾Sortieren ▾

- Anton Aktie  
Neuer Termin: Vorbereitung 21:08
- Administrator Administrator 21:07  
Vorlagen

## Neuer Termin: Vorbereitung

Anton Aktie <anton.aktie@sovereignit.de> 21:08

**An** Anna Alster AA

[Antworten](#) [Allen antworten](#) [Weiterleiten](#) [Löschen](#)

Diese E-Mail enthält einen Termin. [Terminetails anzeigen](#)

**Vorbereitung**, Di., 21.1.2020 09:00–10:30 Uhr

### Erinnerung

Keine Erinnerung

AblehnenVorläufigBestätigen

Alle Zeiten werden in dieser Zeitzone angezeigt: **Mitteleuropäische Zeit**

Sie wurden von **Anton Aktie** zu einem Termin eingeladen:

Dienstag, 21. Januar 2020

09:00 - 10:30

## Vorbereitung

Suchen... 🔍

Neuer Termin Planung Heute

Ansicht ▾

&lt; Januar 2020 &gt;

KW	MO	DI	MI	DO	FR	SA	SO
1	30	31	1	2	3	4	5
2	6	7	8	9	10	11	12
3	13	14	15	16	17	18	19
4	20	21	22	23	24	25	26
5	27	28	29	30	31	1	2

## ▼ Meine Kalender

 Alster, Anna ☰ Geburtstage[Neuen Kalender hinzufügen](#) ▾

## ▶ Öffentliche Kalender

&lt; &gt; Januar 2020 KW 4

Mo. 20

Di. 21

Mi. 22

CET ▾

05:00					
06:00					
07:00					
08:00					
09:00		Vorbesprechung			
10:00					
11:00	Daily	Daily	Daily	Daily	Daily
12:00					
13:00			Lunch mit Chris		
14:00					

Benachrichtigungen

[Später erneut erinnern](#)

Termin-Einladungen

Di., 21.1.2020

09:00–10:30 Uhr

**Vorbesprechung**

Anton Aktie

[Im Kalender öffnen](#)

Bestätigen/Ablehnen



# Overview

oCIS and Phoenix - the innovations we will see today

- oCIS - ownCloud Infinite Scale
  - Easy deploy and scale
  - Conceptual changes
- Phoenix – new standalone web front-end
- Extension framework for oCIS and Phoenix
- ownCloud 10 and Infinite Scale
  - Feature transition
  - Migration
- Roadmap



# More highlights at CS3

oCIS and Phoenix at CS3 2020 – talk to us

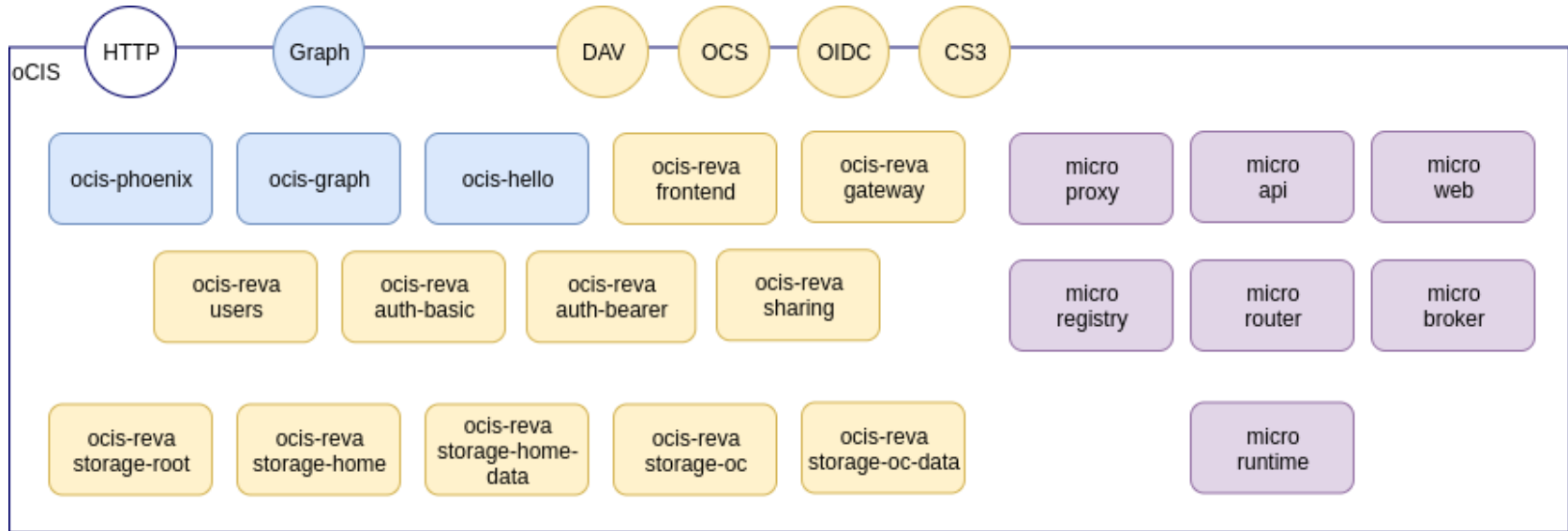
- Mon, 2:30 pm, oCIS – Concepts, Protocols and Extensions – Jörn Dreyer
  - Benefits of oCIS architecture changes
- Tue, 1:30 pm, several talks on CS3 APIs
  - oCIS and REVA implement open standard CS3 API
- Wed, 10:00 am, ownCloud Infinite Scale extensions – Alex Unger
  - Extending oCIS is easy and convenient
- Wed, 4:00 pm, REVA – Hugo Gonzalez Labrador
  - The embedded heart of oCIS with focus on storage, file and metadata operations





# What is ownCloud Infinite Scale?

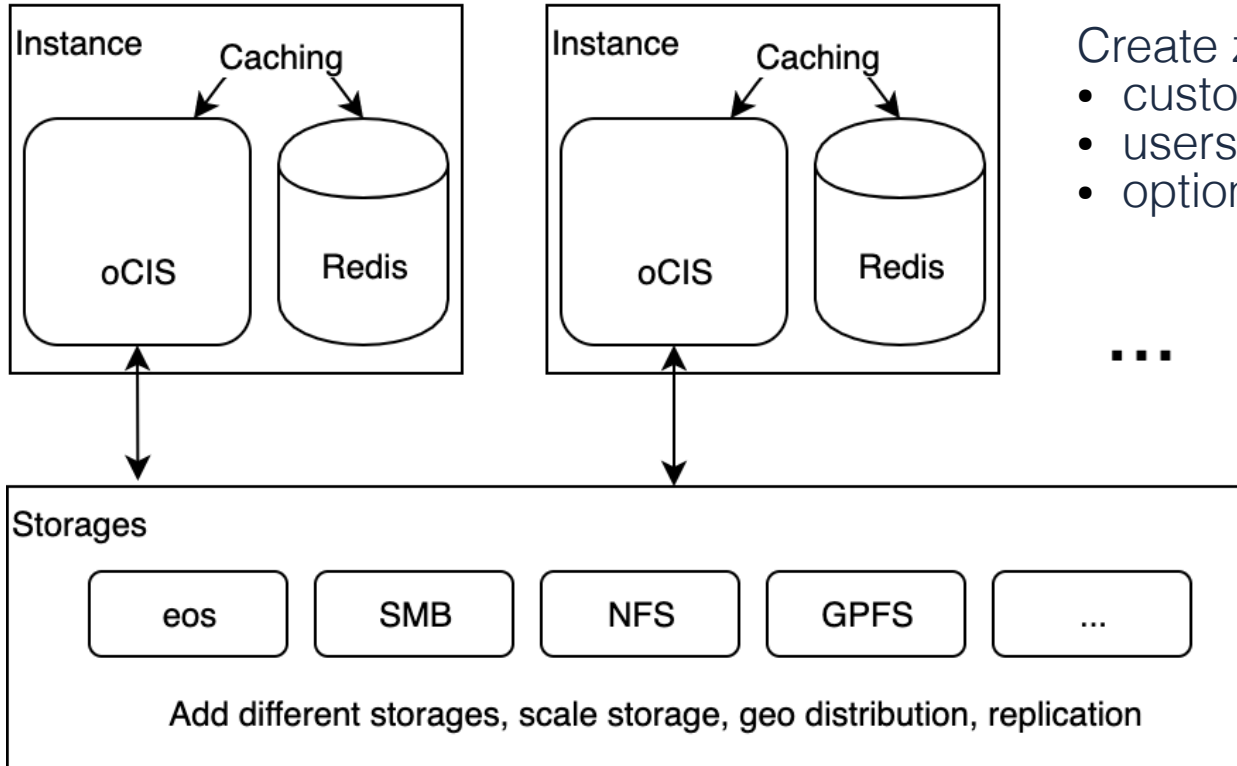
oCIS is a single binary which contains all needed micro services



- oCIS <https://github.com/owncloud/ocis>
- Using REVA <https://github.com/cs3org/reva>
- Using go-micro <https://go-micro.dev>

# OCIS scale and deploy

Setup independent instances - Easy scale out



- Create zones for
- custom services
  - users and access rights
  - options and configurations

...

# Conceptual changes

Naming is hard

- „The incoming shares are hard to manage and confusing our end customers“
- „We want to have group drives and they should get a dedicated quota“
- „We want our user to create project spaces“
  
- Global namespaces
- Directly adressable storages



# Conceptual changes

## Metadata consistency

- „We are seeing hotspots in the database tables!“
  - caused by atomic mtime & etag propagation to the root (async to other users)
- „Sometimes the filecache and the filesystem are not in sync. We just do an occ files:scan“
  - aborted long running operations may leave the file index in a corrupt state
- Single source of truth
- Use storage providers to persist metadata that best fits the underlying storage technology
- Metadata sharding using storage providers
- Real caches instead of databases

# Phoenix web front-end

Standalone single page web application

- Using vue.js framework
- ownCloud Design System ODS
- New Sharing UX
  
- Deploy and scale separately – 3-Tier application
- Seamless compatibility with ownCloud 10 and Infinite Scale
- ~~Internet Explorer 11~~

Demo: <https://phoenix.owncloud.com> (demo / demo)

Phoenix: <https://github.com/owncloud/phoenix>






+ NEW

<input type="checkbox"/>	Name	Actions
<input type="checkbox"/>	★  Documents	
<input type="checkbox"/>	★  Photos	
<input type="checkbox"/>	★  Project	
<input type="checkbox"/>	★ <> collaborators .html	
<input type="checkbox"/>	★  ownCloud Manual.pdf	
<input type="checkbox"/>	★  Project.odt	

**Project** ★ 0 B, 18 days ago

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**Project A**    
 Contributor | Expires in 4 days

**Public link**    
 Viewer

**Public link**    
 Viewer | Expires in 6 months

3 folders and 3 files - 5.42 MB Used space: 5.42 MB



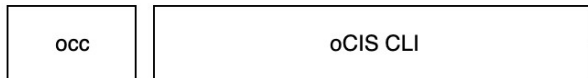
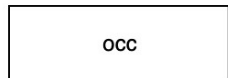
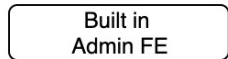
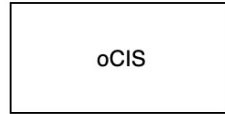
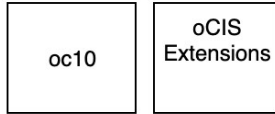
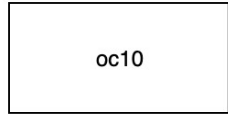
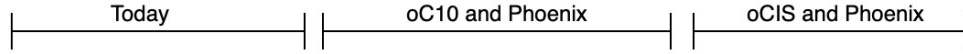
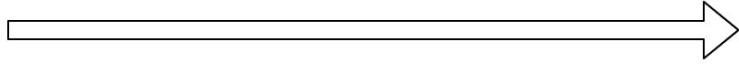
# Extension framework for oCIS and Phoenix

Extending oCIS is easy and convenient

- Extend any APIs, web front-end, configs, command line interface
- Framework in go-lang, extensions in any language
- Build a microservice to extend the backend
- Extend Phoenix web-frontend with web components
- Reuse ODS components to build your custom extension

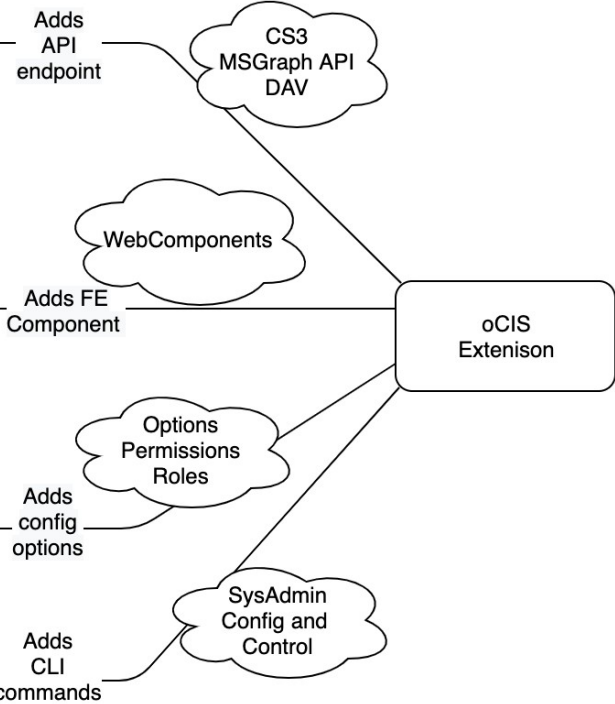


# oCIS and ownCloud 10 - Transition



## oCIS Extension

Micro services adding functionality





# oCIS and ownCloud 10

## Migration to Infinite Scale

- Metadata in DB migrated to storage
- Export from ownCloud 10 and import to Infinite Scale (new setup)
- Migrate per user, or all at once
  - While running both systems in parallel – sync them
  - Infinite Scale “knows” ownCloud 10 and proxies requests
- Migration is easy – Start, pause, resume, keep in sync



# Roadmap - Future Infinite Scale Innovation

- OIDC with Kopano Konnect, Keycloak, Ping Identity, ... ✓
- oCIS binary including REVA and Extensions ✓
- Run existing acceptance tests ✓
- Storage provider for GPFS and SMB
- Archiving integration
- Roles and Permissions
- Workflows for automation
- Policy engine
- Integrations for more Open Source



Thank You!

