Go Infinite Scale

How to Build an Open-Source School Cloud for 5 Million Users
and be better than every hyper scaler
## Introduction

### David Walter
- Project Lead
- CXO of ownCloud
- CISO of ownCloud
- DPO of ownCloud
- ownCloud OSS User & Admin since 2014

### ownCloud
- Project launched 2010
- Infinite Scale GA 2022
- > 2.5 K Tenants
- > 1 M downloads
- backbone of Service Providers

### Kiteworks
- ownCloud + Kiteworks
- Security-First Company
- Empowers ownCloud
  - Security driven
  - Privacy driven
  - Compliance driven
  - 24/7 operations
  - 24/7 support
Kiteworks Acquires ownCloud!

Expanded Product Range and Strengthened Resources: Experience a broader range of innovative products and enhanced support, providing a comprehensive solution for content sharing and collaboration.

Secure and Compliant Data Management: Unwavering commitment to data privacy and sovereignty, with consistent data privacy policies under Kiteworks and ownCloud's adherence to strict data protection standards.

Continued Support and Innovation: Ongoing support for ownCloud 10 and the development of Infinite Scale, leveraging financial stability and expanded capabilities post-merger to deliver robust, scalable, and future-proof solutions.

Robust Growth and Strong Leadership: The merger lays a foundation for significant growth and enhanced product development, backed by the continuity of ownCloud's senior management and the expanded resources of Kiteworks.
**Numbers**

**Bavaria**
- 6.2 K schools
- 1.6 M pupils
- 116 K teachers
- 2 M parents
- 13 M inhabitants
- 4.7 M named Users

**Germany**
- 32 K schools
- 10.7 M pupils
- 820 K teachers
- 30 M parents
- 84.6 M inhabitants
- 40 M named users

**EU**
- 200 K Schools
- 73.9 M pupils
- 5.2 M teachers
- 300 M parents
- 447 M inhabitants
- 350 M named users

Sources: Bayerisches Staatsministerium für Unterricht und Kultus, Federal Statistical Office of Germany (Destatis), Statistics agency of the European Union (Eurostat)
Goals

• Data sovereignty
• Most Secure (BSI, GDPR)
• Digital accessibility
• Available, Stable, Reliable, Invincible
• Maximum Integration
• Scale-out without limits
• Updates without downtime
• Productive after 32 weeks
Infrastructure

- 4 Data Centers in Germany
- Two S3 Locations
- 4 Meta-Data Locations
- 240 k8s Clusters
- 52 * 2 PB S3 Storage
- 60,000 vCPUs & 120,000 GB vRAM
Applications

• ownCloud Infinite Scale
• ONLYOFFICE Document Server
Why ownCloud Infinite Scale?
Reason # 1:
Liberate User Data

Sources:
• OneDrive
• Google Drive
• ownCloud 10 & Nextcloud
• many more
Reason # 2: Spaces

- Avoids data-silos
- Self-service
- Quota Management
Reason # 3: No Split Brain

The advantage of one source of truth vs. the disadvantage of file storage and database with meta data.
Reason # 4: iPad App

Just try it out yourself
Load & Performance Testing

• How to survive a lockdown?
• test-2-fail vs. test-2-pass
• 95% requests within 2 seconds
• Simultaneous UX-Testing
• Initial project and ongoing testing
Software

- Full text Search and OCR
- Anti Virus Scanning
- SMTP Relay
- IDP/IDM
Monitoring

- Grafana
- Prometheus
- Mimir
- Tempo
- Loki
Operations

- NGINX
- Ansible with AWX
- sonatype OCI
- HELM
The Universe

- Keycloak SSO
- Matrix Messenger by Sdui
- Geogebra Notes
- moodle
- visavid
One last word:
I hear rumors...
... fact is:

ownCloud is the Open-Source-Brand of Kiteworks. Full Stop!
Kiteworks Commitment to Opensource

Open-Source Foundation: Core of ownCloud's success lies in its open-source offering.

Collaboration with Kiteworks: Commitment to continued investment in open-source software and communities.

Five-Year Plan: Pledge to sustain open-source innovation for at least five years.

Bolstering Security: Kiteworks to strengthen the security framework in open-source initiatives.
hello@ownCloud.com
ocis:matrix.org
https://github.com/owncloud/ocis
https://doc.owncloud.com/ocis/next/
https://owncloud.dev/