

Researching Google Workspace Disaster Recovery Tools

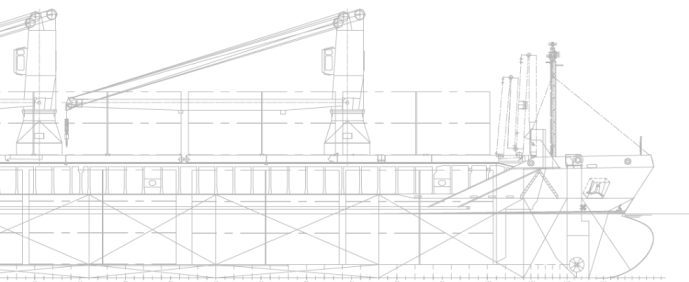
Schlomo Schapiro — April 2022
@schlomoschapiro



Problem Space

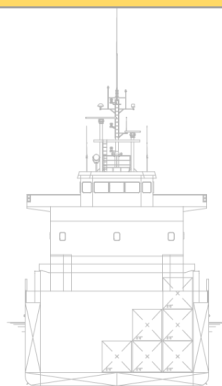
Undelete

A user deleted an item



Restore

All the data is deleted or unusable

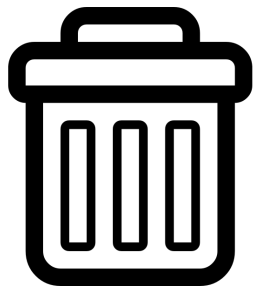


Disaster Recovery

The infrastructure or platform is not usable, together with all the data

Undelete

A user deleted an item



Restore

All the data is deleted or unusable

Disaster Recovery

The infrastructure or platform is not usable, together with all the data

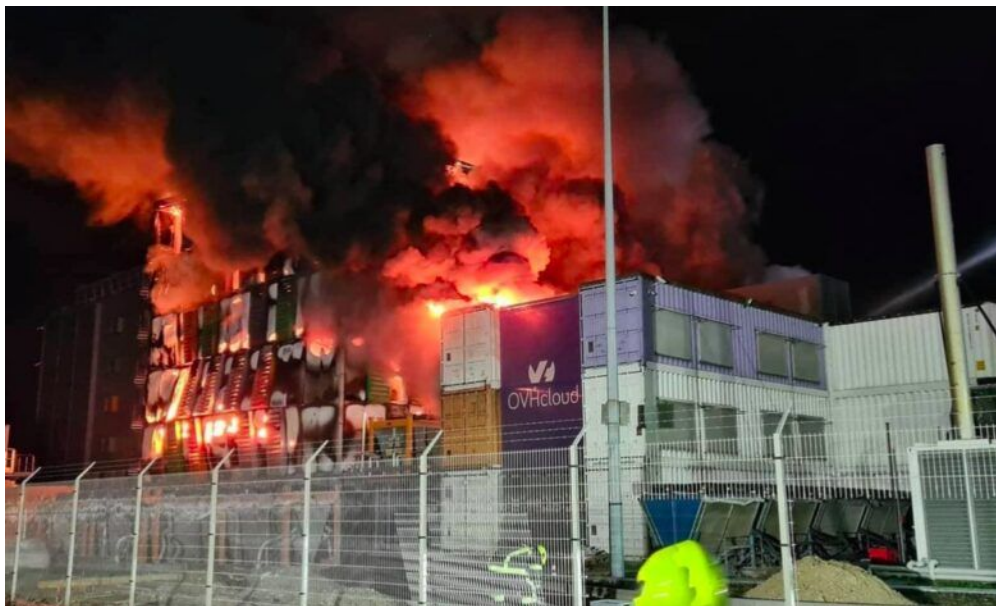
Common

solution

for Restore & Disaster Recovery

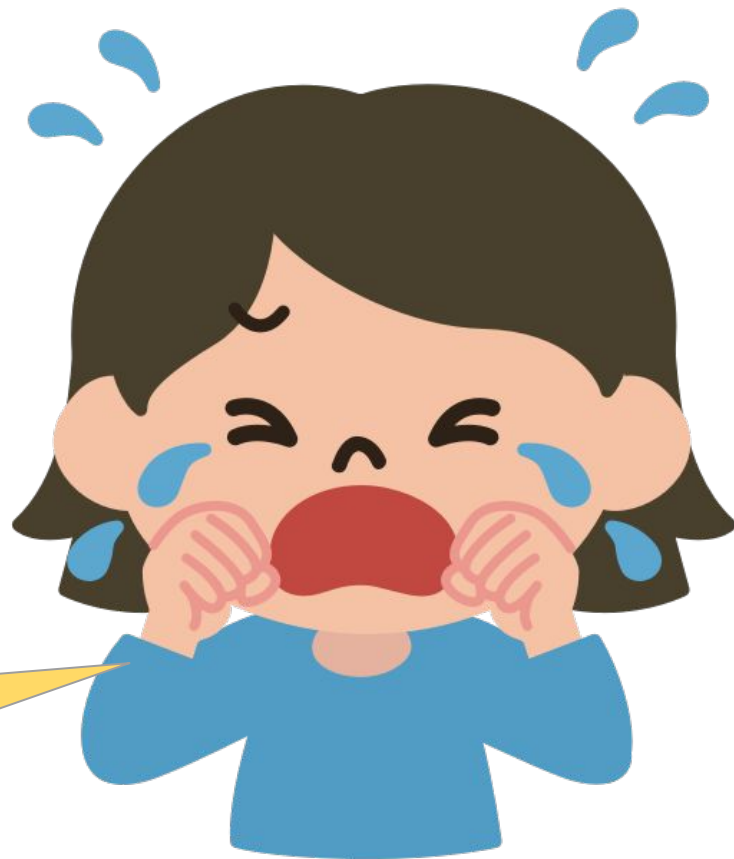


**All my Data is
in the Cloud!**



10.03.2021: [OVHcloud data centre destroyed in inferno](#)

**Where is my
Cloud Data?**



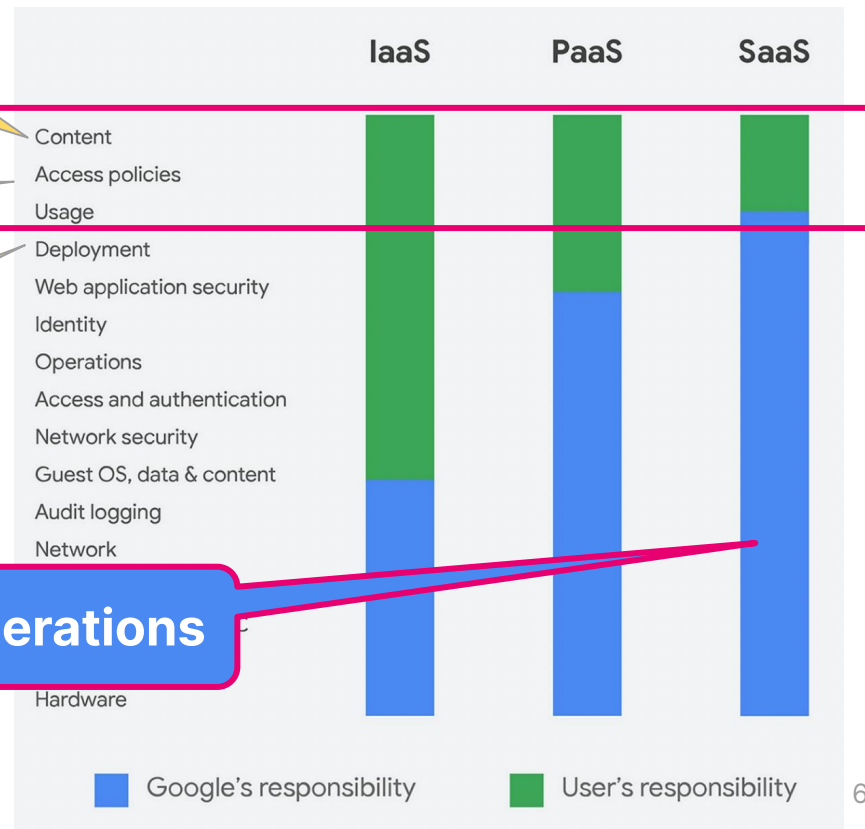
The Problem: Users are Responsible for Content

Accidentally or maliciously deleting data?

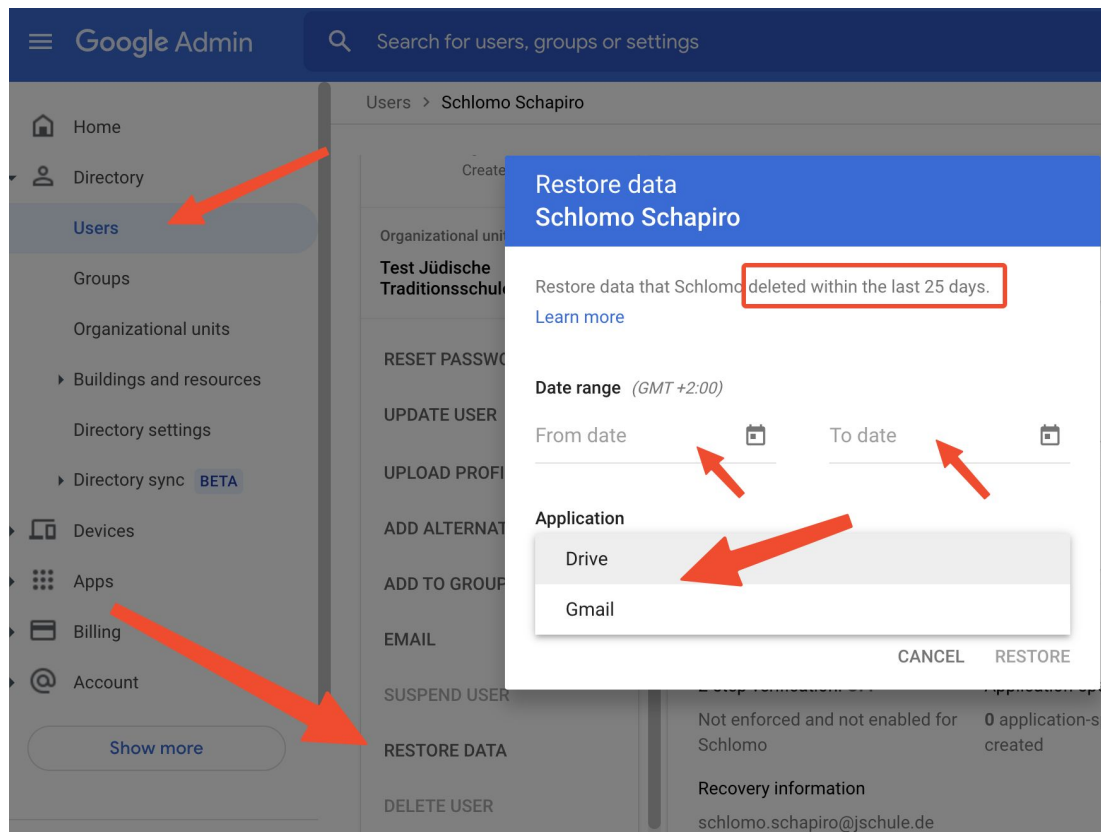
Granting access to malicious apps?

Deleting entire user account or Domain?

Google only guarantees technical operations



Is the built-in Undelete enough?



Limitations:

- Only
 - Shared Drives
 - Drive
 - Gmail
- Maximum 25 days
- Doesn't restore sharing
- Only **deleted** files

Benefits:

- Restored Drive IDs

Links:

- [Recover deleted files and folders for Drive users](#)
- [Restore deleted shared drives or their files](#)
- [How to mitigate ransomware risks for Google Workspace documents](#) (Whitepaper)

Asking vendors

Hi,

I am looking for a Google Workspace backup & DR solution and have some questions about yours:

- Please provide a demo or documentation for restoring deleted Google Drive files under the same DocID (Drive link continues to work) and shared with the same sharing settings, more than 30 days after deletion.
- Please provide a demo or documentation for restoring all users to a freshly provisioned Google Workspace (GW) domain in order to recover after accidentally deleting the entire GW domain.
- Can you recover Firebase projects, Blogger.com or YouTube content? Please provide a demo
- Can you recover Shared Google Drives? Do you support all Google Drive file types?
- How is my data in your systems protected from other 3rd party access, e.g. under a court order?
- How can I recover a deleted Google account after more than 30 days with your tool?

Please provide a quote for 10 Google Workspace users.

Kind regards,
Schlomo Schapiro

Google Workspace Backup Tool Market

SaaS vendors

- 30€ - 60€ per user/year
- Very similar abilities with some specialists (e.g. [SysCloud](#) [Google Classroom Backup](#))

[afi.ai](#), [SpinBackup](#), [Spin.ai](#),
[Spanning](#), [Backupify](#),
[SysCloud](#), [Axcient](#)

Self hosted

- Software: 5€ per user/year
- NAS appliance:
no software license costs

[CubeBackup](#), [Synology](#), [QNAP](#)

No fundamental differences in backup & restore abilities

Backup Loses Data & Restore Loses Functionality

Type	Backup	Restore
Google Docs, Sheets, Slides	yes / as DOCX, XLSX, PPTX	to native formats
Apps Script, Forms, Drawings, Jamboard	as JSON, ZIP, JPEG or PDF	same, view only
Sites (new), Fusion Tables, MyMaps, Drive Add-Ons	no	no
Groups	Settings & members, not mails	Settings & members, no mails
Calendar	yes	yes
Contacts	yes	yes
Mail	yes (no filters ...)	yes
YouTube, Blogger, ...	no	no



The Disaster

after the

Disaster Recovery

Restore: All Links Broken

Original (this presentation):

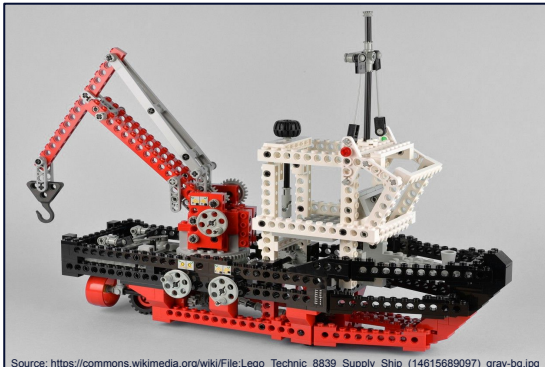
docs.google.com/presentation/d/1P8tgUjH1kWIG4wFbBaiv1otqPRWm4BWAb0Z5BfoSxGc/



Restored:

docs.google.com/presentation/d/1hpu0s42vEFHF7Ancp3F136v83PZxqRS6B273mQ8ecLY/

Your Data before Backup:



Your Data after Restore:



My Recommendation: NAS Appliance



- QNAP or Synology
- Local data export without Internet & Cloud
- Cost scales with data volume, not user count
- Data on-premise, not in Cloud
- Full data ownership and sovereignty
- Lowest total cost (< 1000€)
- ✓ for 10 user domain



TODO for larger domains:

- Compare QNAP Boxafe and Synology Active Backup for Google Workspace
- Check manual efforts (auto add new users, expunge deleted users, user self-service ...)
- QNAP has Enterprise version

Could be that a NAS appliance is also the best solution for large domains. For cloud-based solutions I'd start from looking at afi.ai because of the document ID preservation for in-place restores.

Details & Links

Cloud

<https://afi.ai/g-suite-backup> - \$33 / year
<https://spinbackup.com/products/google-apps-backup/> - \$36 / year
<https://spin.ai/platform/google-workspace/> -
<https://spanning.com/products/google-apps-backup/> - \$53 / year, 25% discount for 3y commitment
<https://www.backupify.com/gsuite-backup> -
<https://www.syscloud.com/google-apps-backup/> - \$38 / year, min 25 user, + Classroom
<https://axcient.com/solutions/microsoft-365-google-workspace-backup/> -

Self hosted

<https://www.cubebakcup.com/> - \$5 / year, hosting + storage costs
https://www.synology.com/en-global/dsm/feature/active_backup_google_workspace - no licensing cost, requires Synology storage appliance
<https://www.qnap.com/en/how-to/tutorial/boxafe>, <https://www.qnap.com/en/software/boxafe> - no licensing cost, requires QNAP storage appliance

Specialists:

- Afi.ai restores files to their original Drive ID
- SysCloud support Google Classroom

Caveats

Restore can take unpredictably long, from days to weeks.

Spanning Backup

No support for new Google Sites:

<https://support.spanning.com/hc/en-us/articles/360033921571-What-data-does-Spanning-Backup-for-G-Suite-back-up->

Not supported Drive file types: <https://support.spanning.com/hc/en-us/articles/360033921471> Sites, Forms, Scripts, Fusion Tables, PDFs set to not download, Google Drive Add-Ons
 Spreadsheet formulae not exported because of Excel incompatibility:
<https://support.spanning.com/hc/en-us/articles/360033921531-Are-Google-Spreadsheet-Formulas-Backed-Up-> (but restore will recover the original formulae)

Gmail Filter rules not backup up:

<https://support.spanning.com/hc/en-us/articles/360033552412-Are-Gmail-filter-rules-backed-up->

Starred Emails not backed up:

<https://support.spanning.com/hc/en-us/articles/360033552392-Are-Starred-emails-backed-up->

Everything restored is a new item with new IDs:

<https://support.spanning.com/hc/en-us/articles/360033333412-Should-I-be-worried-performing-a-restore-could-cause-me-to-lose-data->

Cubebakcup

<https://www.cubebakcup.com/docs/faq/pricing-calculator/>

- 10 Users, 2 TB, Europe → ~700 US-\$ / year

Synology

https://www.synology.com/en-global/dsm/7.0/software_spec/abg

- My Drive, shared drives, Gmail, Google Contacts, and Google Calendar
- Forms, Scripts, Drawings, Jamboard: Backup and Restore in export format

https://kb.synology.com/en-global/DSM/tutorial/How_to_choose_NAS_for_ABG_and_ABO

- 50 User recommended: DS1019+, DS920+, DS918+, DS720+, DS718+, DS420+
- DS720+ 2x4TB 6GB RAM: [730€](#)
- DS920+ 4x4TB 4GB RAM: [970€](#)
- DS1520+ 4x4TB 8GB RAM: [1160€](#) (5 slots)
- Comparison: <https://www.synology.com/en-us/products/compare/DS1520+/DS720+/DS920+>
- No yearly cost beyond utilities & replacements

QNAP

- QNAP TS-253D-4G 2x4TB 4GB RAM: [620€](#)
- QNAP HS-264-8G 2x4TB 8GB RAM: [880€](#)
- QNAP TS-453D-8G 4x4TB 8GB RAM: [1010€](#)
- User Guide: <https://www.qnap.com/en/how-to/tutorial/article/boxafe-user-guide>
- Comparison: <https://www.qnap.com/de-de/product/compare?products=ts-253d.hs-264.ts-453d.tbs-464>

Benefit QNAP HS-264-8G:

N5105 slightly faster CPU, 2.5G LAN, Volume Encryption, HDMI, fanless design

No Backup? No Mercy!

- schlomo.schapiro.org/2022/04/mission-impossible-complete-google-workspace-disaster-recovery.html
- forto.com/career join our vision:

"We are building the backbone of global trade, to make shipping goods as easy as sending emails."

