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S2N Storage Server Network

TEKTIT CONSULTING

Digital Sovereignty Is More Than a Piece of Paper

Why Backup Is the Only Way Out of the SaaS Trap

03.11.2026, S2N Storage, Server, Network 2026, Berlin

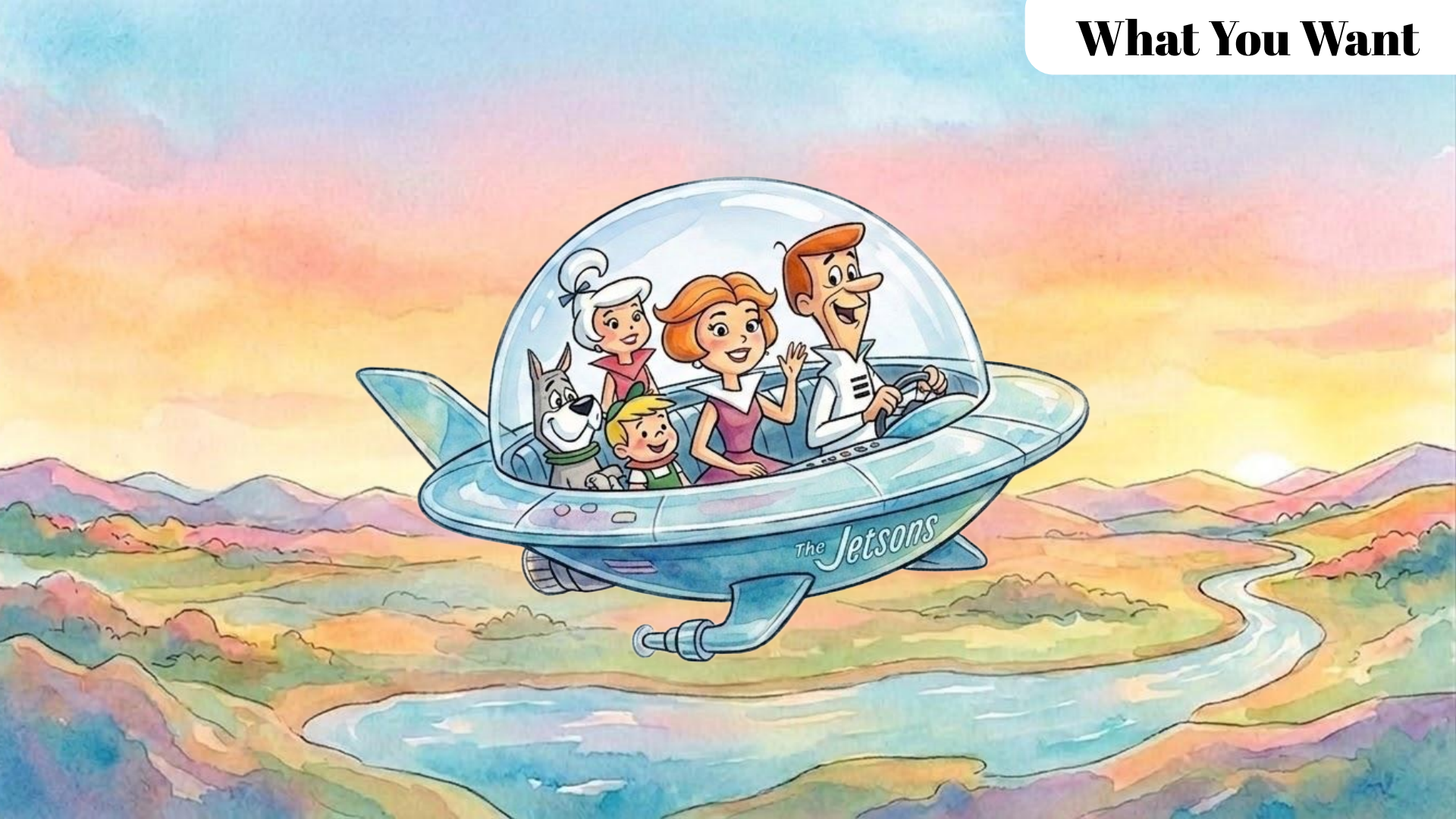
Schlomo Schapiro, Associate Partner / Principal Engineer, Tektit Consulting

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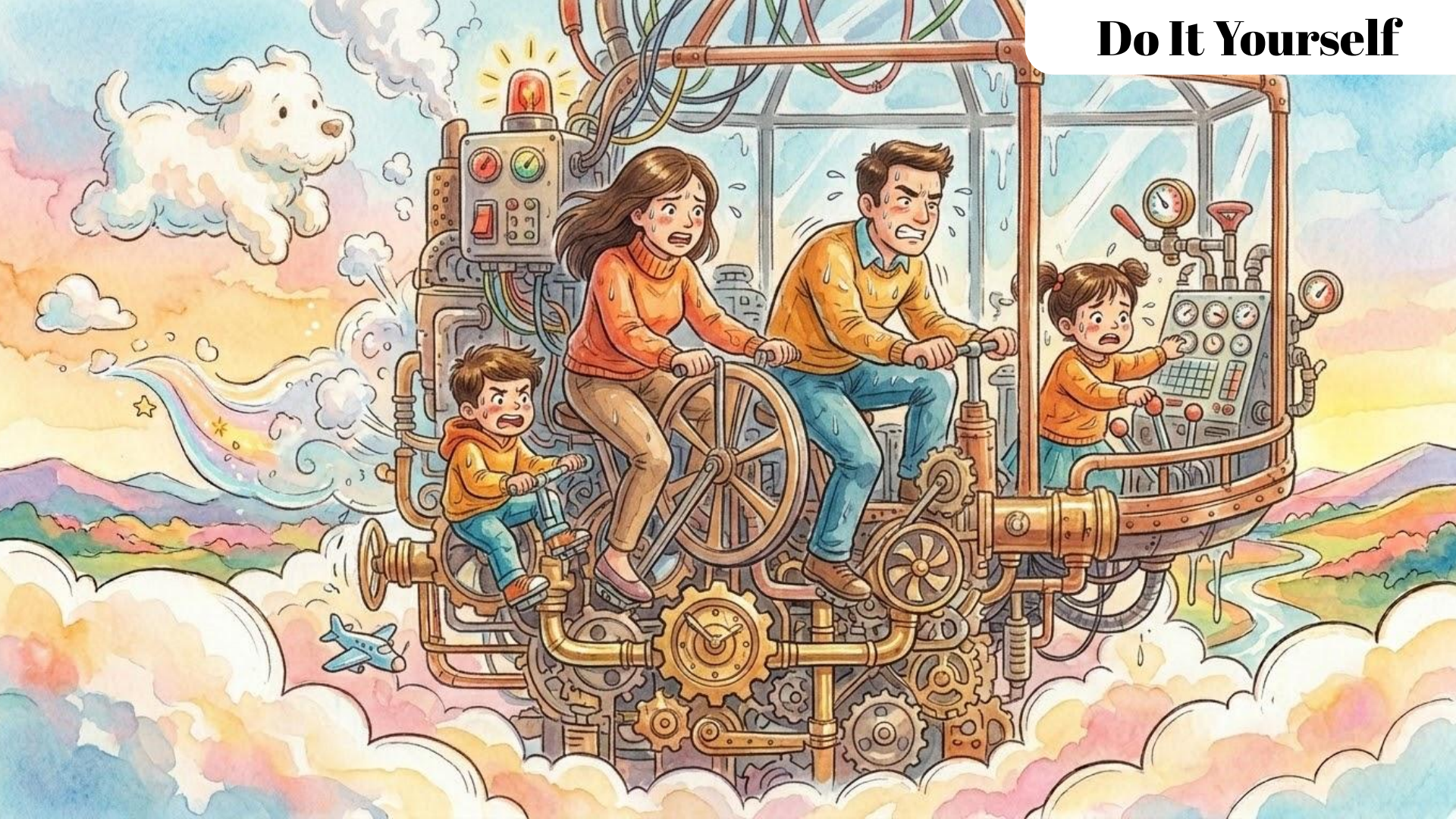
Why we need SaaS



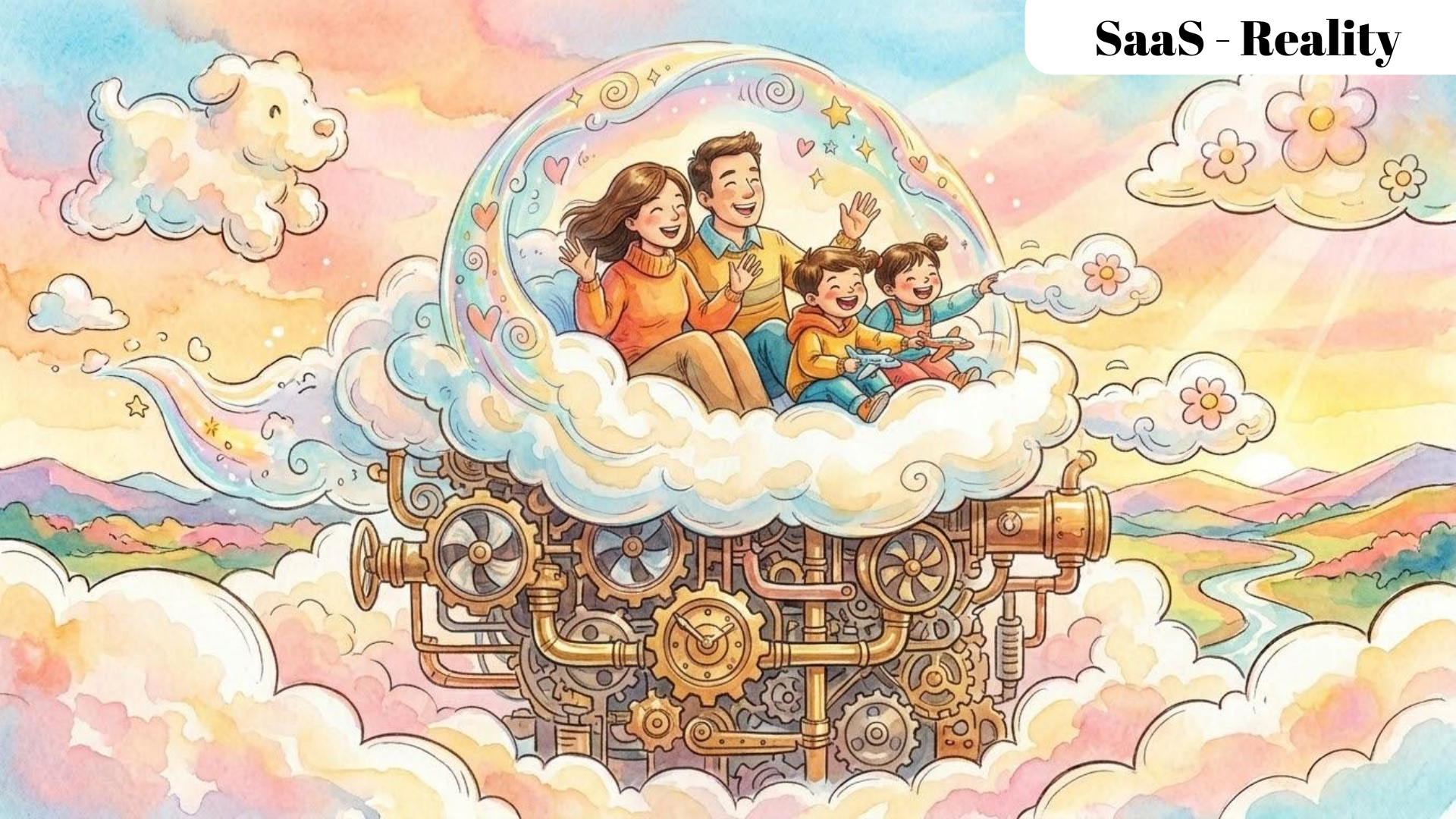
What You Want



Do It Yourself



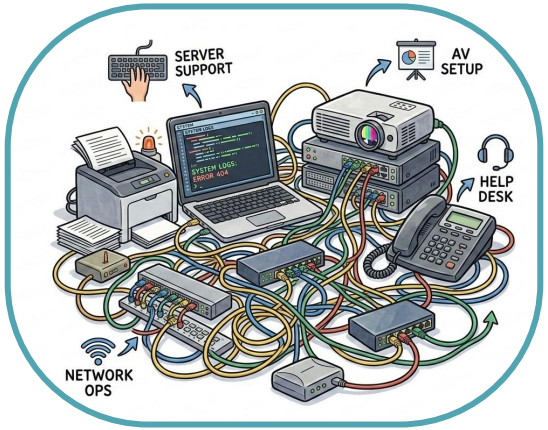
SaaS - Reality



SaaS - Perception



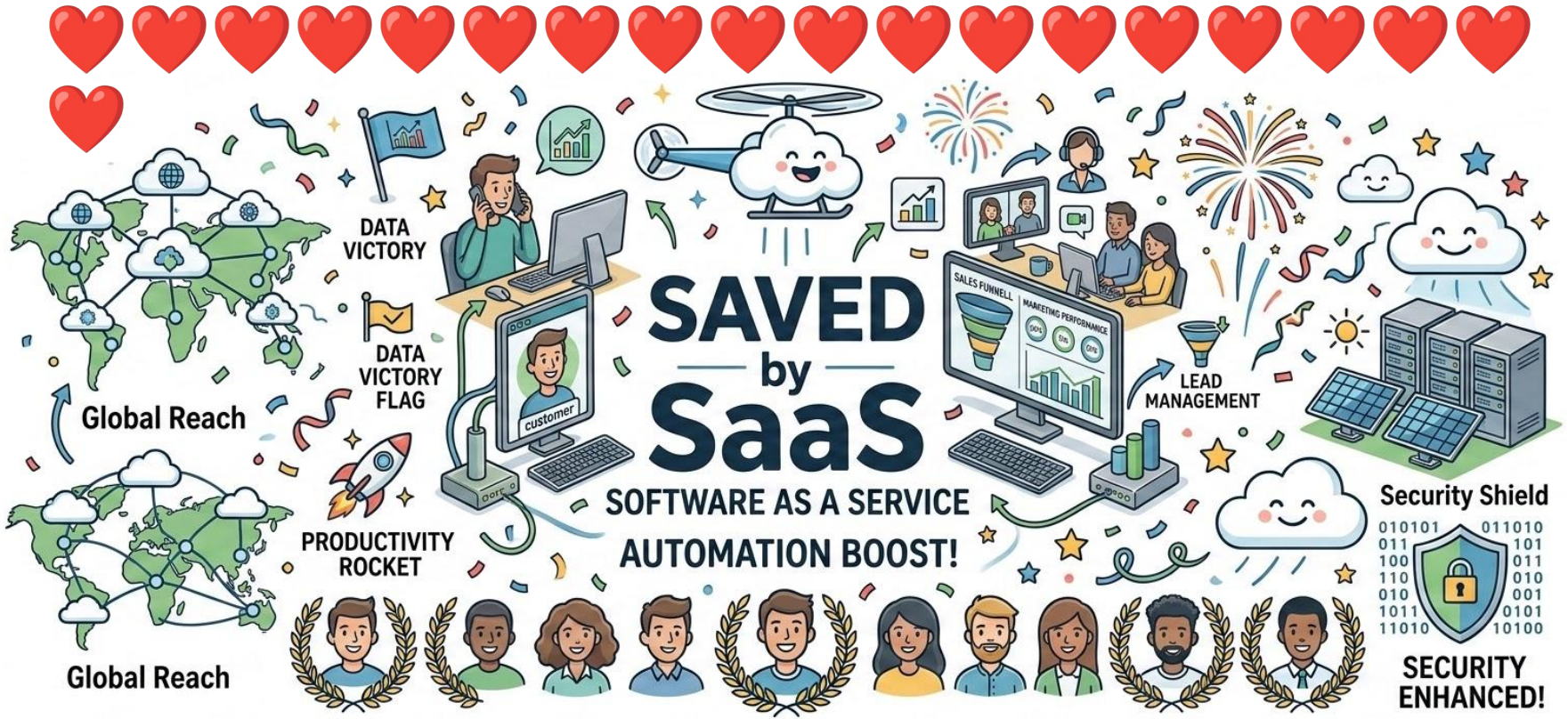
The IT Landscape Problems, Problems …



ATS	HRIS HCM	CMS	MAP	ERP
CLM	LMS	CRM	CPQ	CRM
GRC	PLM	FP&A	WMS	SCM
KYC	MDM	IAM	ITSM	?

- IT “drives” business
- Every business unit and department needs their “special” IT solution
- Tight coupling: business ⇔ process in software solution ⇔ IT
- Application growth exceeds IT staff growth
- Applications getting more specialized and complex
- Business Units introduce applications on their own
- Application Silos
- Problems …

❤️ SaaS


DATA VICTORY
DATA VICTORY FLAG
Global Reach
Global Reach
PRODUCTIVITY ROCKET
customer
SAVED by SaaS
SOFTWARE AS A SERVICE
AUTOMATION BOOST!
SALES FUNNEL
MARKETING PERFORMANCE
LEAD MANAGEMENT
Security Shield
SECURITY ENHANCED!

SaaS Benefits



Financial Predictability Efficiency

Shift from CapEx to OpEx

Faster Time-to-Value



Business Agility Flexibility

Elastic Scalability

Democratized Access to Best-in-Class Tools



Strategic Focus Productivity

Focus on Core Mission, Not Maintenance

Empowering the Modern Workforce

Always Up-to-Date

KYC MDM IAM ITSM GRC PLM FP&A WMS SCM CLM LMS CRM CPQ CRM ATS HRIS HCM CMS MAP ERP

Let's learn first about Backup & DR ...

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Watch Video

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DevOpsCon +KUBERNETES BOOTCAMP

Backup and Disaster Recovery

Business as Usual or What Needs to Change Now?



18. June 2025, DevOpsCon 2025, Berlin

Schlomo Schapiro, Associate Partner / Principal Engineer, Tektit Consulting

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1

The Basics

Recovery Time Objective (RTO)

*How **long** to recover?*

DO



Recovery Point Objective (RPO)

*How **old** is the recovery data?*

HAVE

Backup is not Disaster Recovery

Restore (not just Backup)

- single file
- single mailbox
- single database
- single LUN
- single server
- single …

When we have

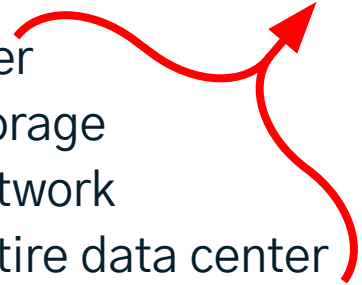
- the file server
- the mail server
- the database server
- the storage

Disaster Recovery

- all files
- all mailboxes
- all databases
- all the LUNs
- all servers
- everything!

When we don't have TIME

- a server
- our storage
- the network
- our entire data center



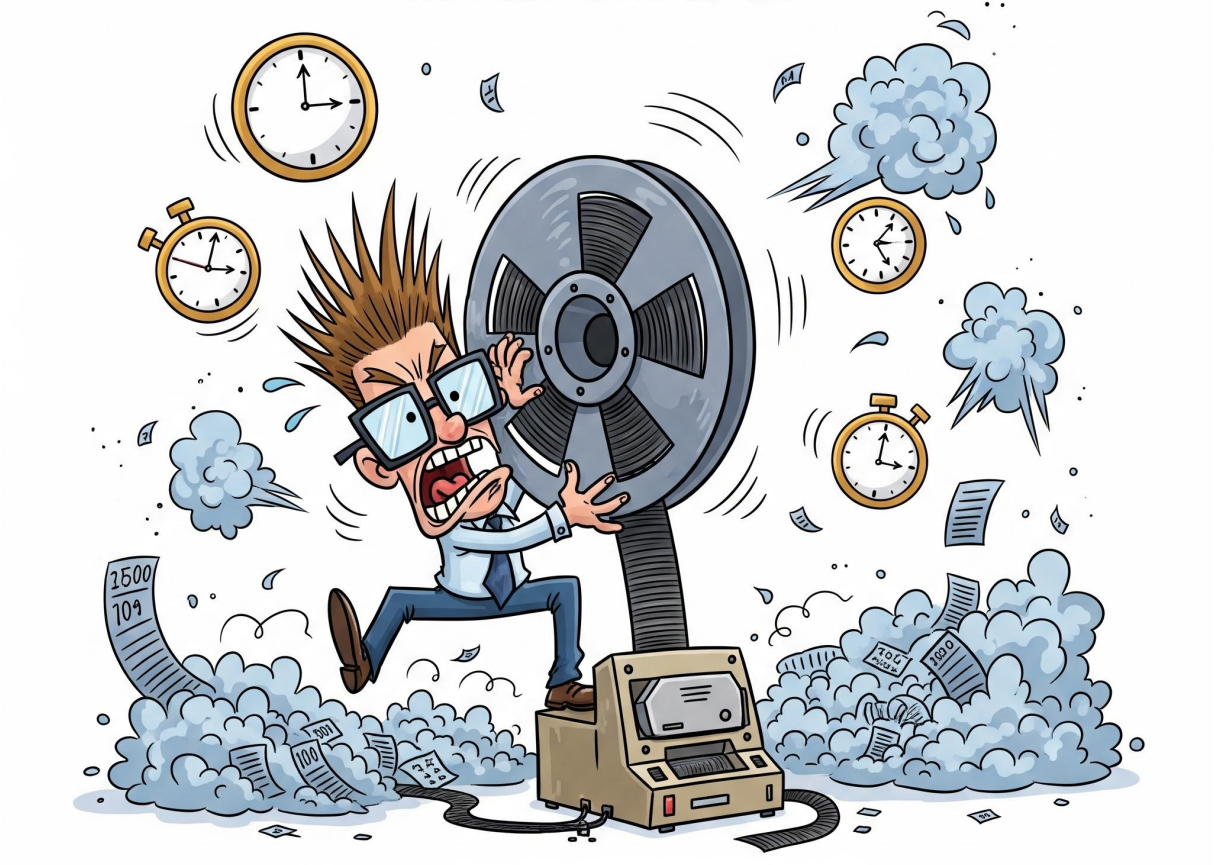
Guiding Principles

Backup is the means to enable Restore

Comprehensive Backup & Restore Automation
is the means to enable
Disaster Recovery and Business Continuity

Use the Same Backup for
Restore and Disaster Recovery

The Restore Time Objective (RTO) Challenge



SLA = RPO + RTO + 🤞 🙏 ❤️ 🩼 🩹 ?

Restore Time = Biggest **Problem & Unknown**



Let's get rid of the restore time!
Let's exercise restore all the time!

Restore **every** backup immediately

Replacement system is **ready** for usage

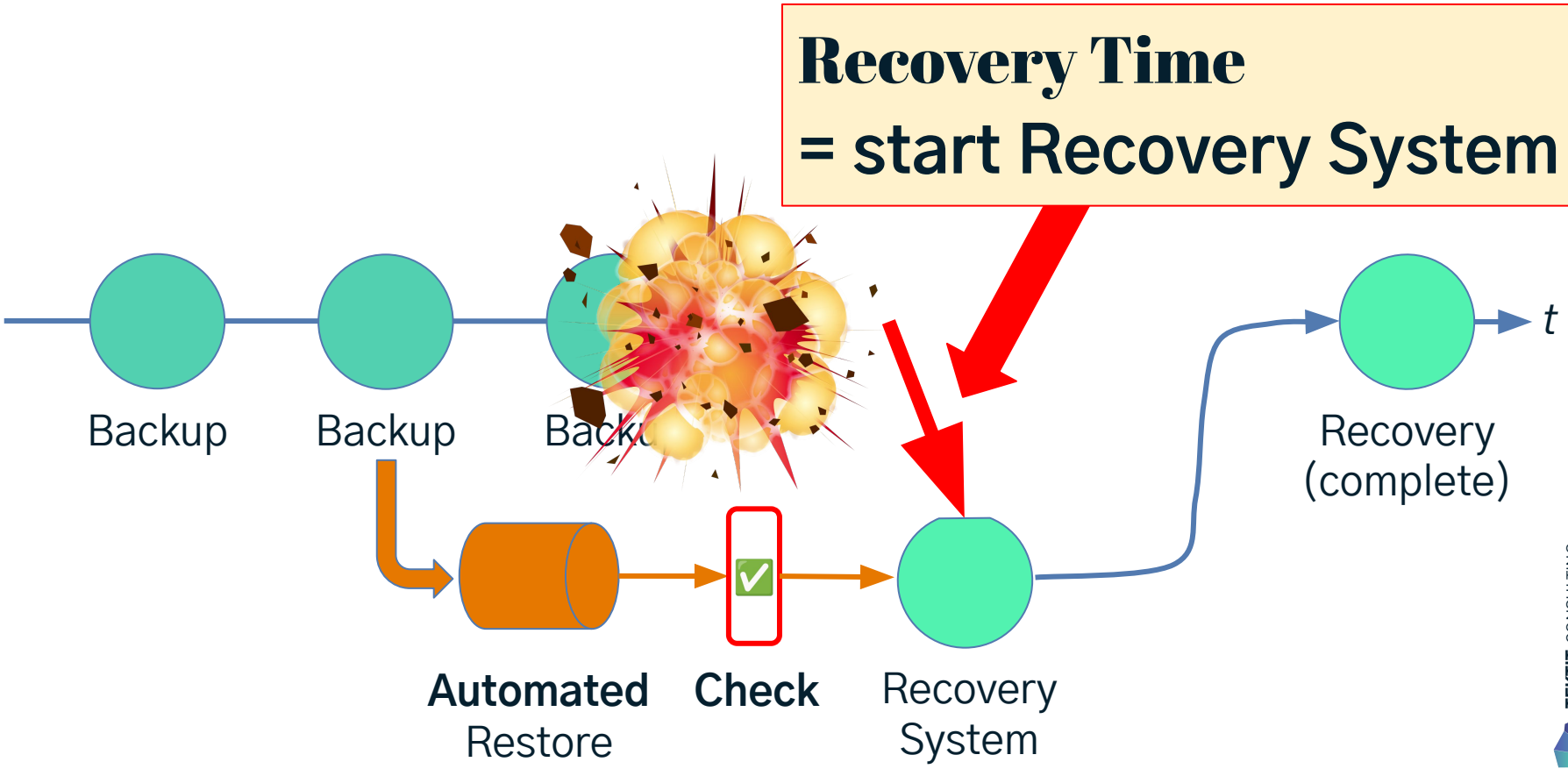
Fixed RTO

Try to **restore** when needed

→

Switch to working & verified recovery system

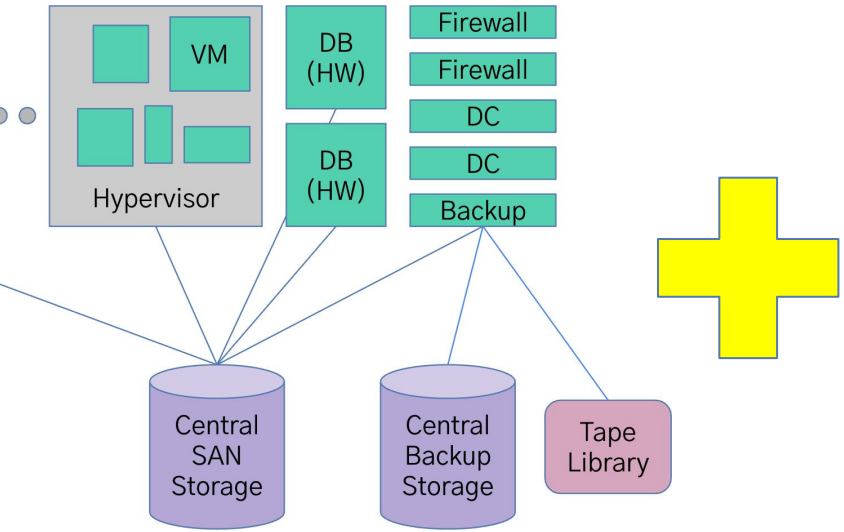
The "No Restore" Solution



The Cloud & SaaS Challenge



Decentralize Everything

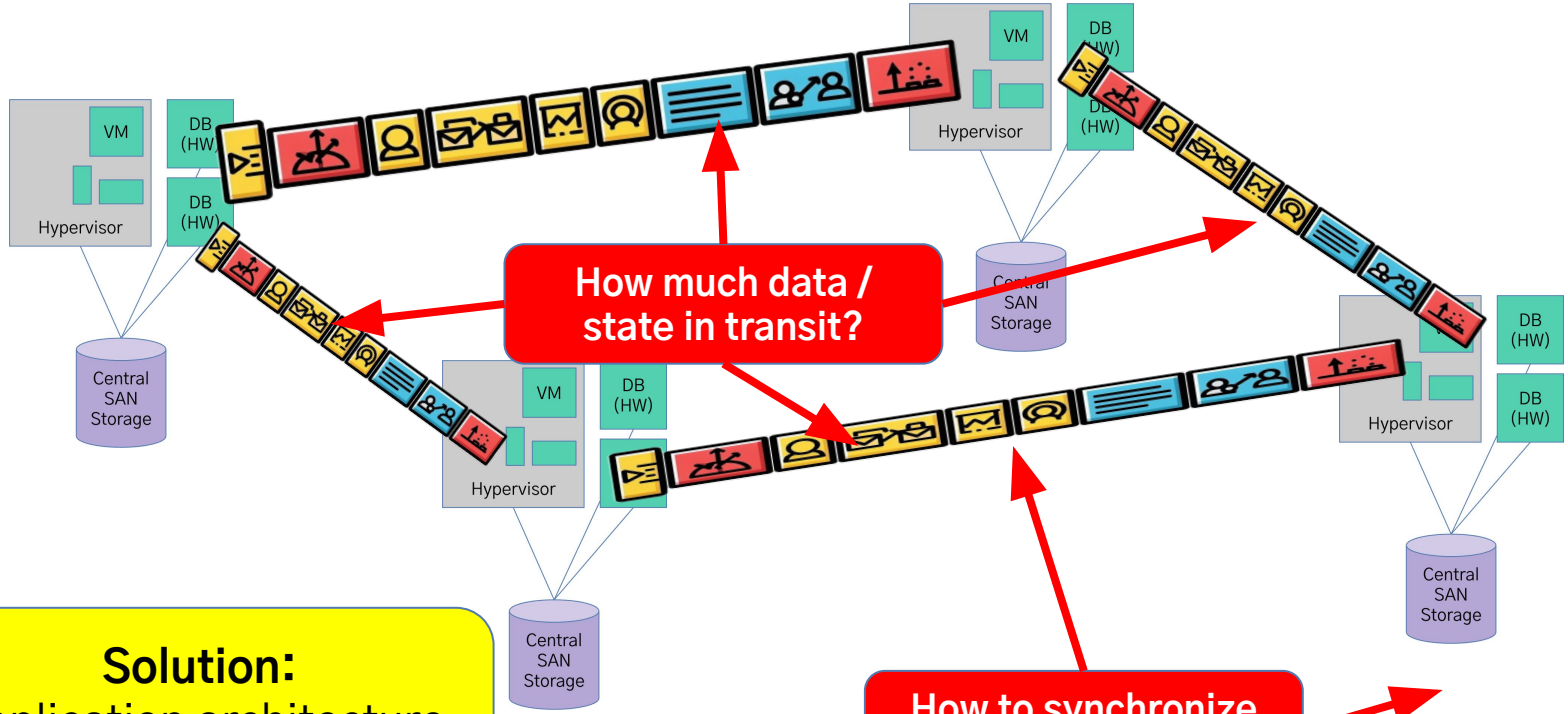


How to recover all of this?

SAAS

CLOUD

Decentralized Consistency Challenge & Queues

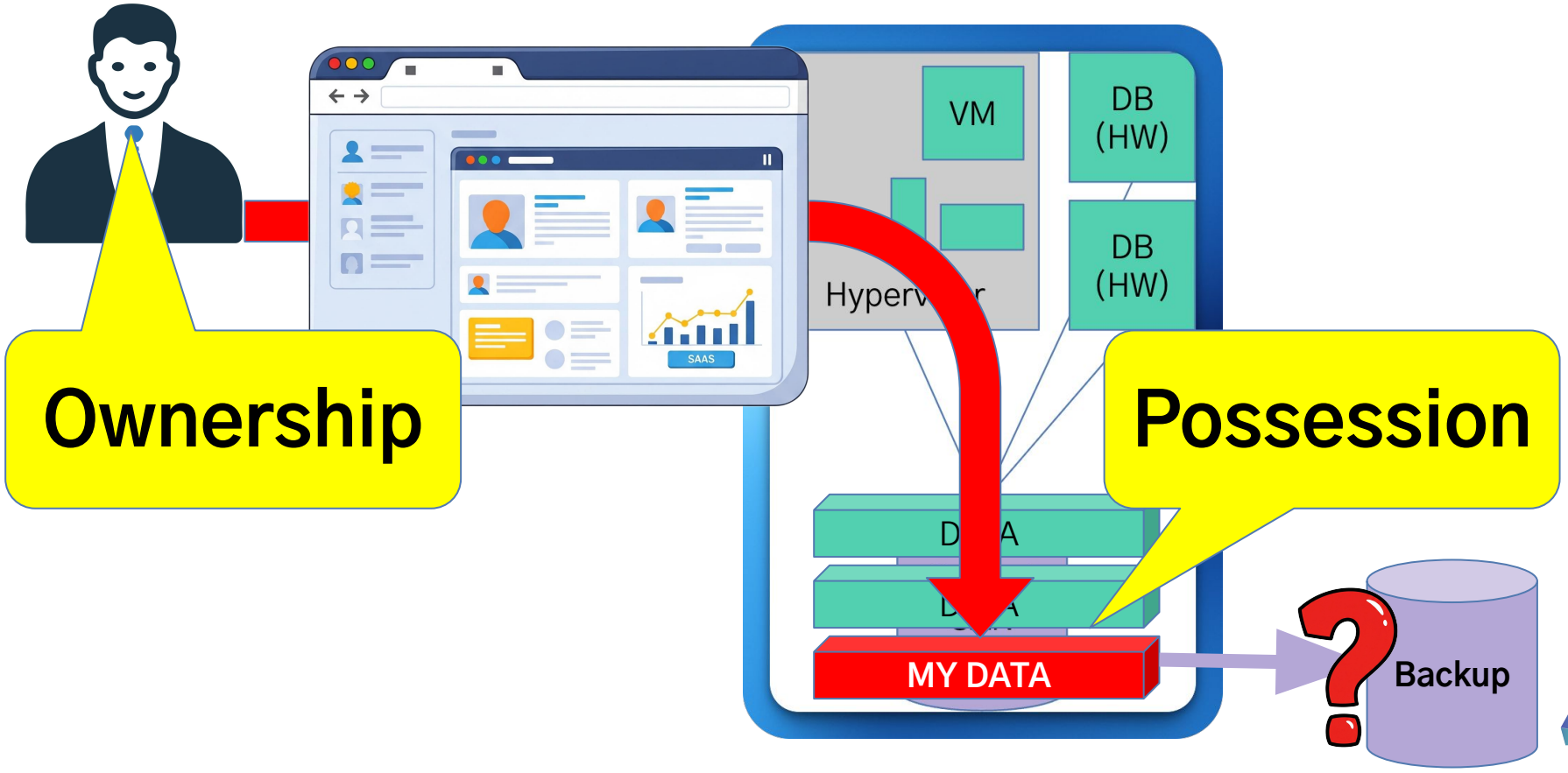


Solution:
Application architecture supports **reconciliation**

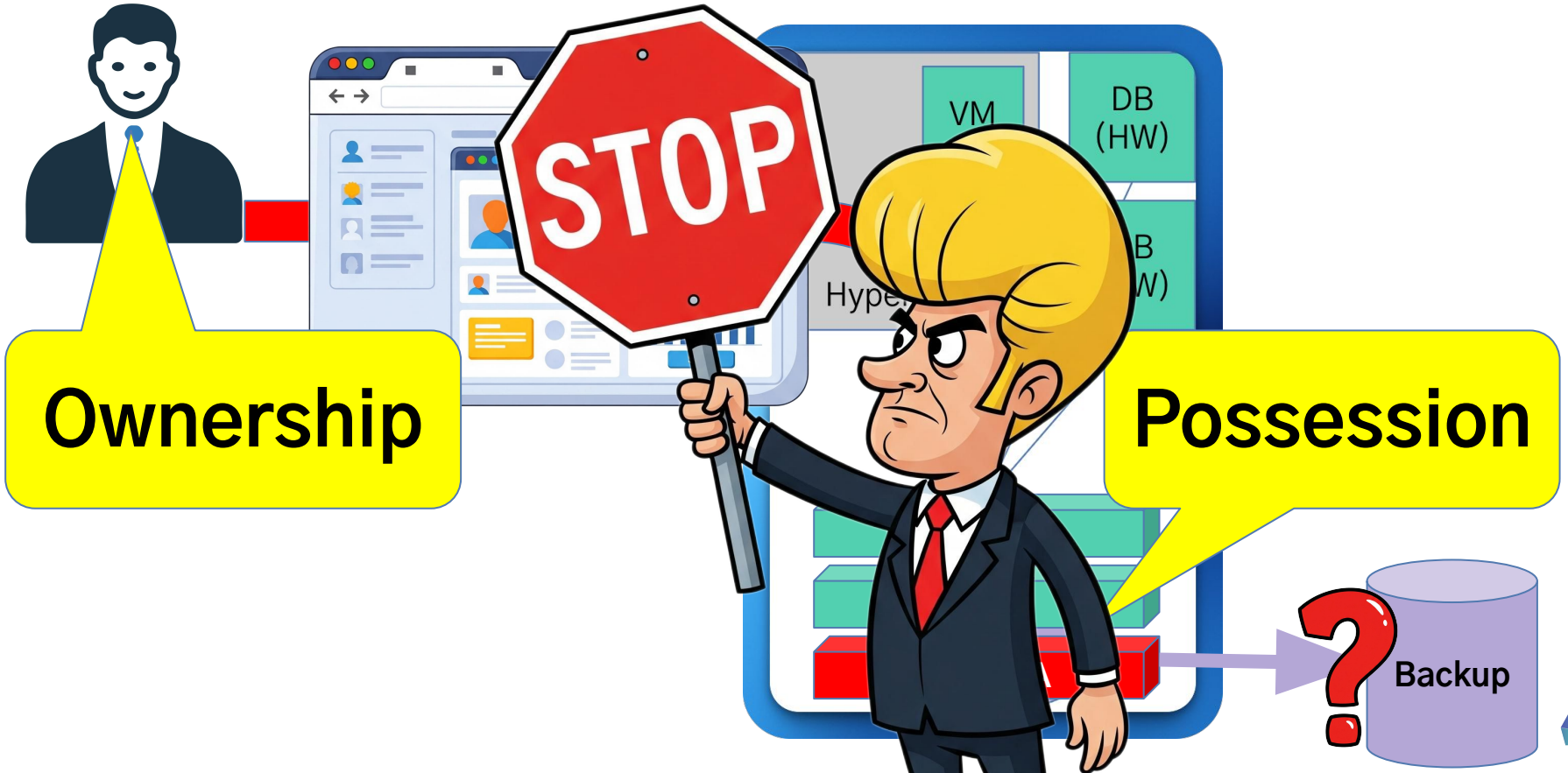
The Data Possession Challenge



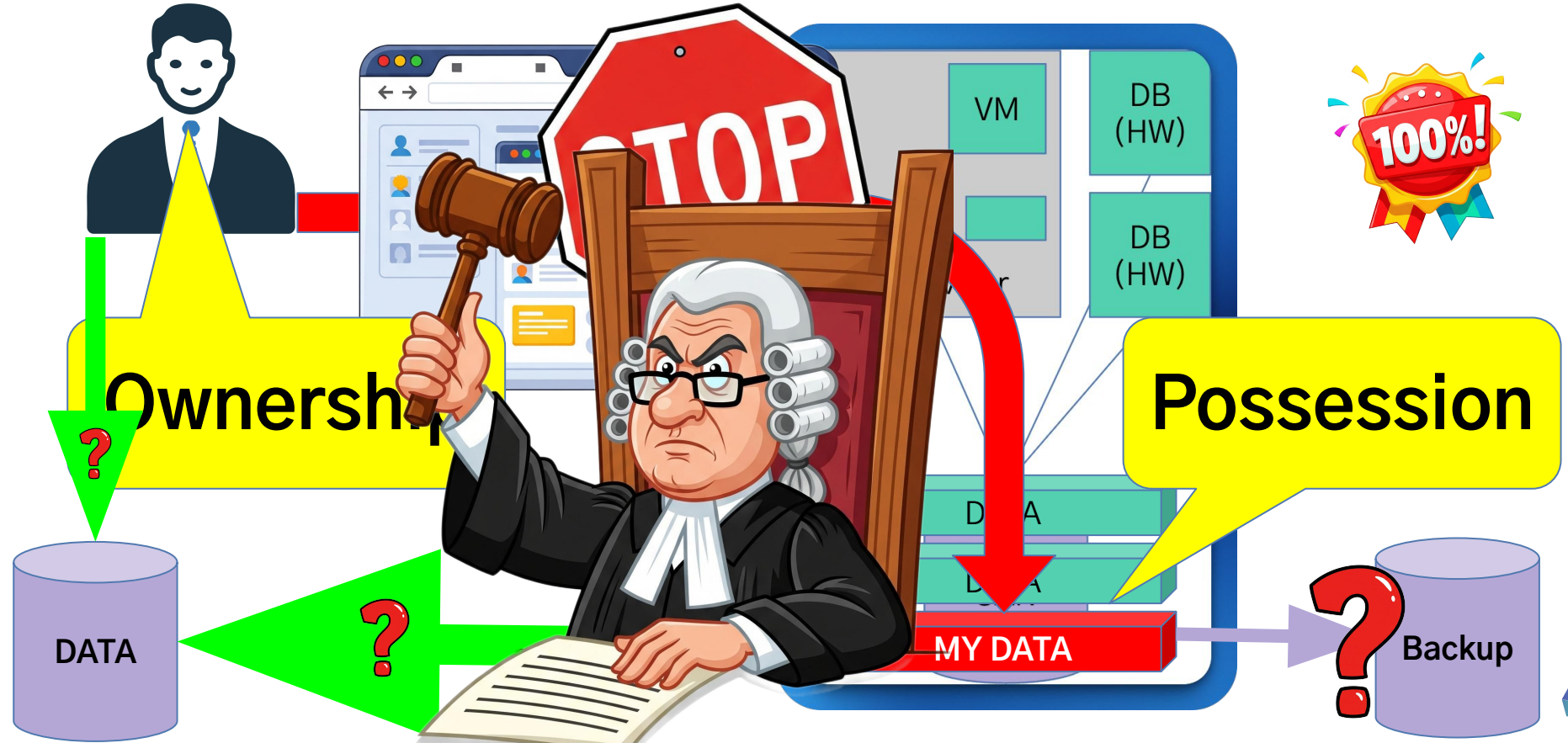
The Data Posession Challenge of SaaS



The Data Posession Challenge of SaaS



The Data Posession Challenge of SaaS



The SLA Challenge

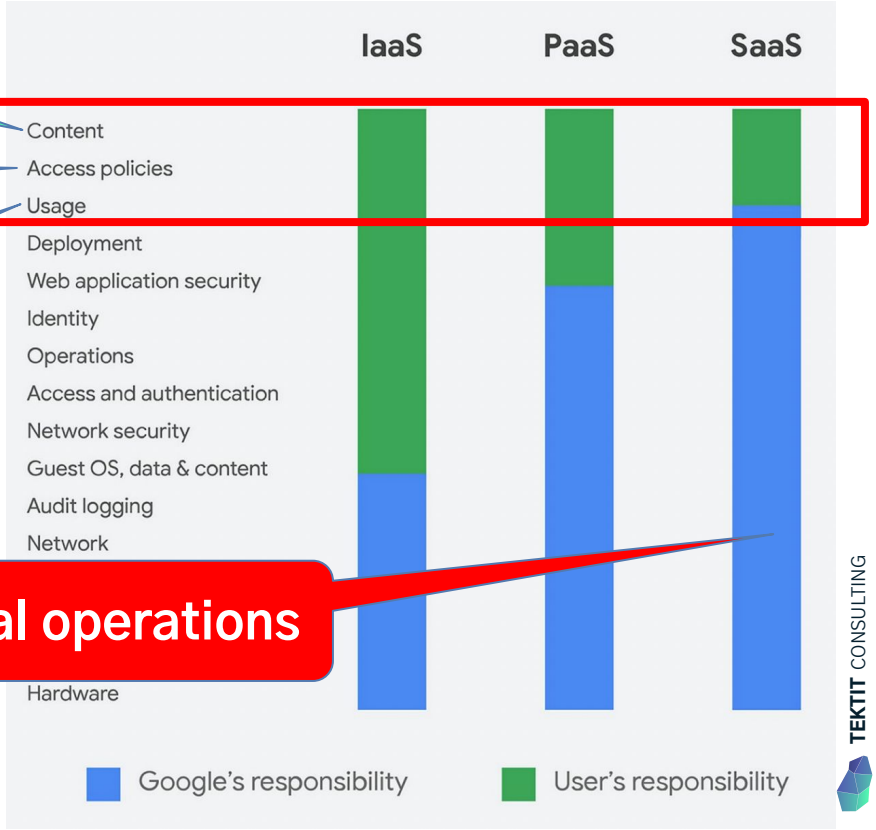


The SLA Challenge: We don't care about your data!

Accidentally or maliciously deleting data?

Granting access to malicious apps?

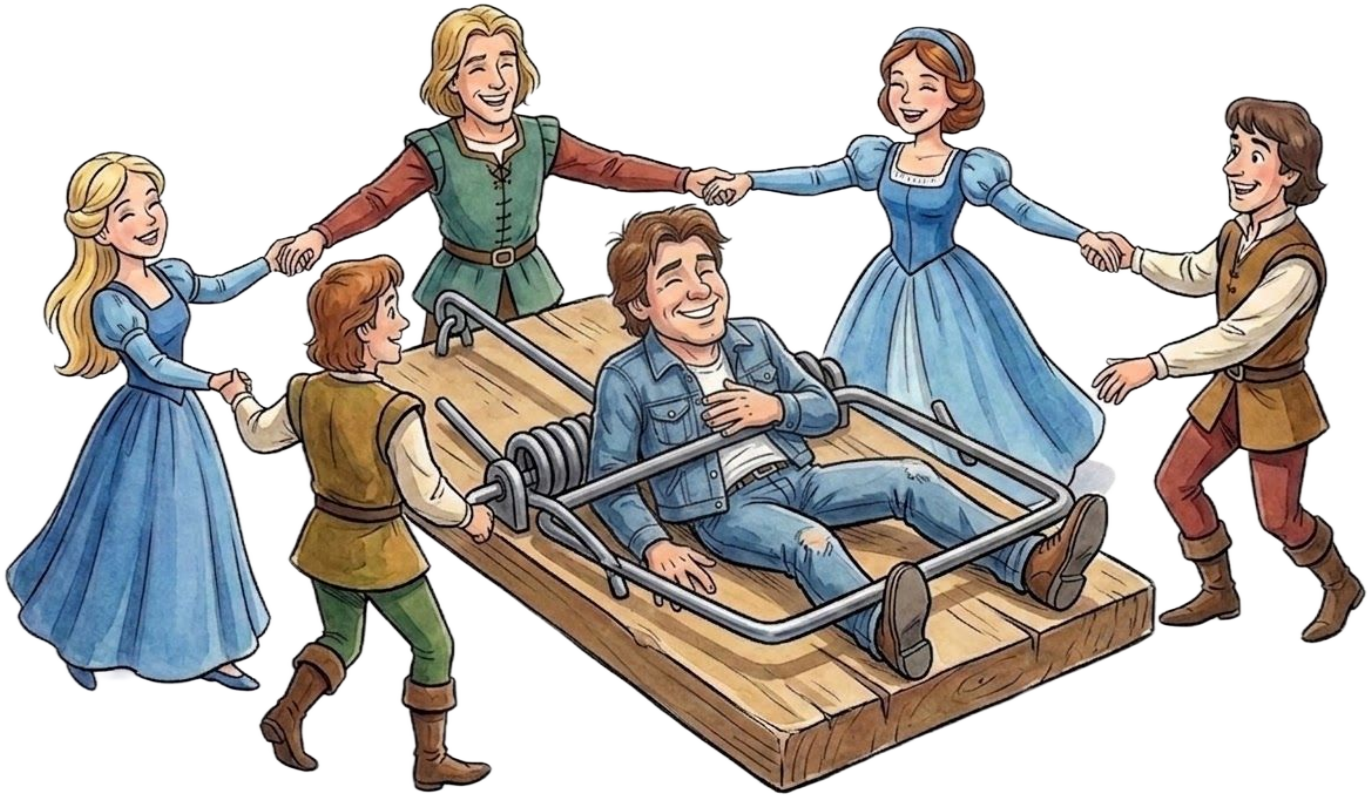
Deleting entire user account or Tenant?



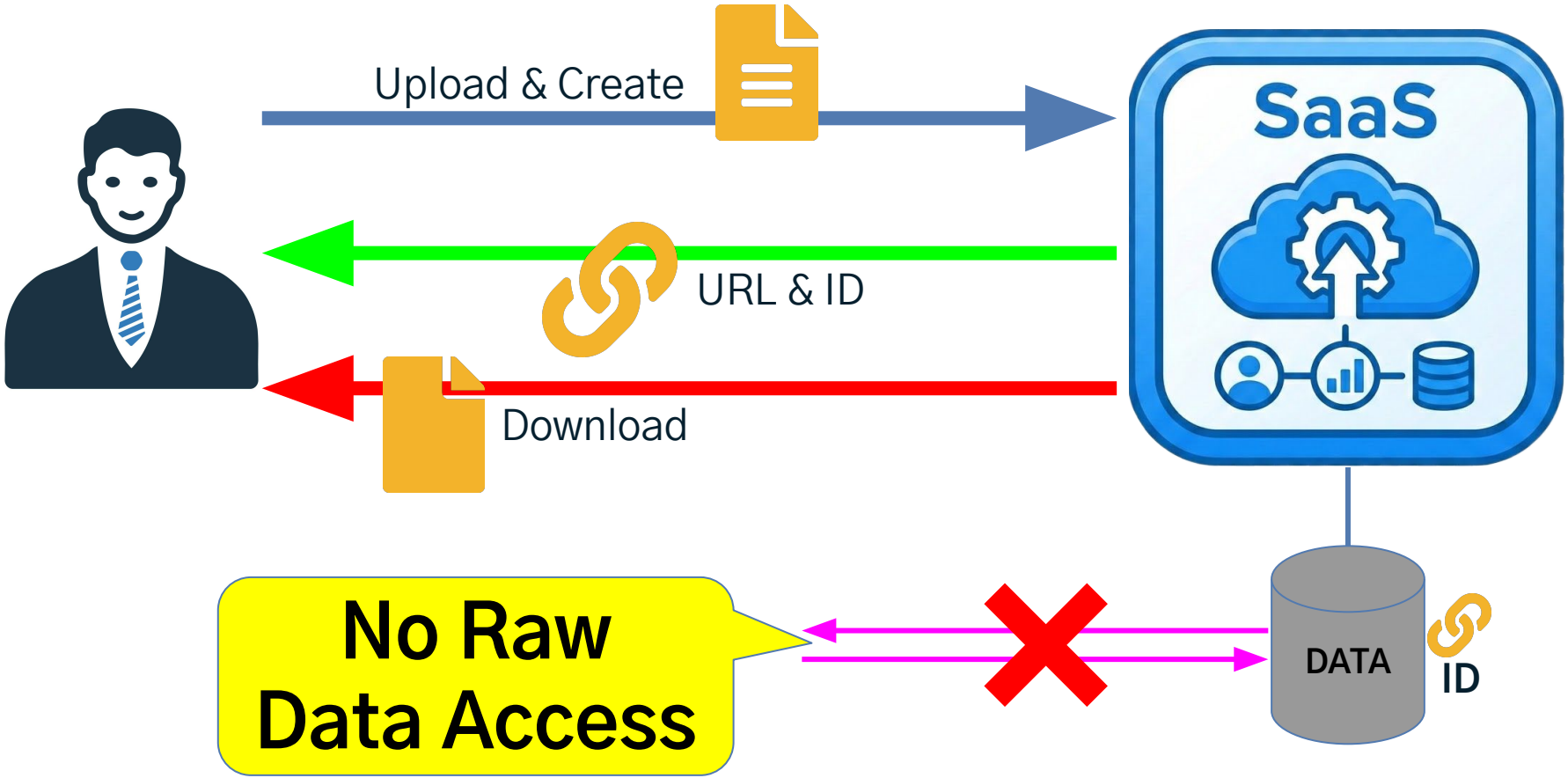
SaaS Vendor only guarantees technical operations

Source for Example:
Google Workspace data protection implementation guide
Released 12/2020

The SaaS Trap



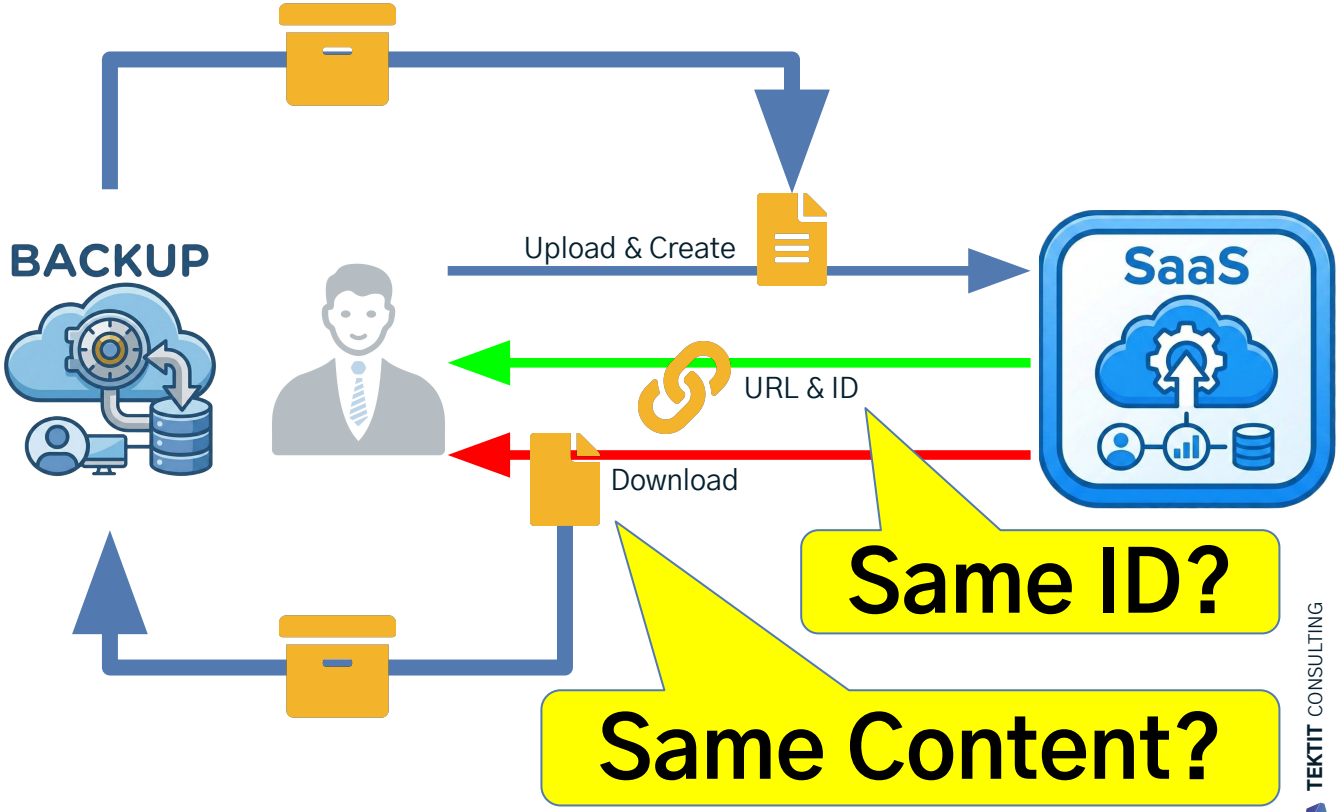
SaaS Application High Level Architecture



SaaS Application High Level Architecture

Include?

- Configuration
- Metadata
- Permissions
- Groups
- Comments
- Approvals
- Relationships
- Sharing



The Shattered Restore Challenge

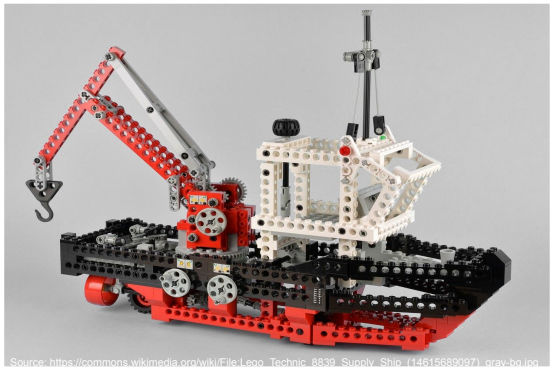
SAAS = NO RESTORE

Original:
docs.google.com/presentation/d/**1P8tgUjHlkWIG4wFbBaiv1otqPRWm4BWAb0Z5BfoSxGc/**

Restored:
docs.google.com/presentation/d/**1hpuOs42vEFHF7Ancp3F136v83PZxqRS6B273mQ8ecLY/**



Your Data before **Backup**:



Your Data after **Restore**:

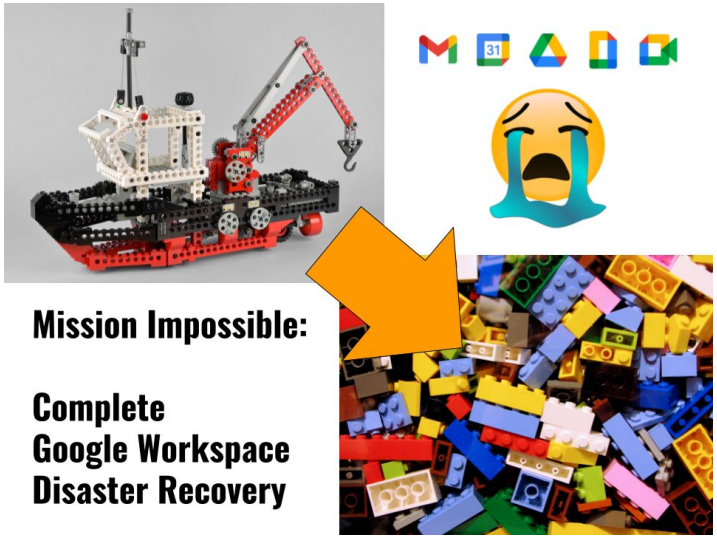


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Case Study: Google Workspace Backup & DR

- Core Services without resture (➡ export only):
  - Google Chat
- Core Services without backup (➡ no restore, too!):
  - Groups content
  - Forms
  - Sites
  - Keep
  - Vids, Pics
  - Gemini
- No Backup: Additional Services
  - YouTube, Earth, … everything else

- Backup & Restore: Mails, Contacts, Calendar, Drive (mostly), Directory (mostly)



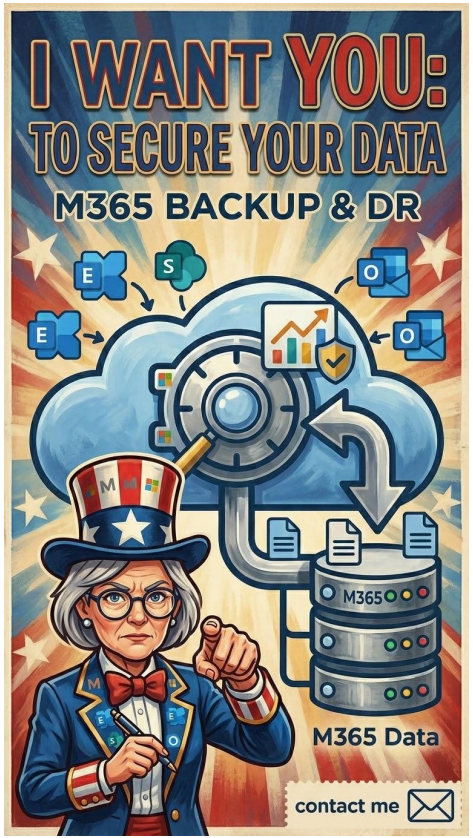
No Chat restore: afi.ai/docs/gw/backup-and-recovery/chats/
No Drive file ID restore: afi.ai/docs/gw/backup-and-recovery/gdrive/#in-place-recovery

schlomo.schapiro.org/2022/04/

Case Study: Microsoft 365 Backup & DR

Gemini: Microsoft 365's highly fragmented architecture and restrictive APIs structurally prohibit a true, full-fidelity backup and restore cycle, forcing modern collaboration workloads into compromised "export-only" recoveries and leaving applications like Microsoft Forms completely unprotected.

Perplexity: Even with Afi, Microsoft 365 only allows full-fidelity backup and in-place restore for some core workloads (Exchange, OneDrive, SharePoint, parts of Entra ID), while others such as Teams chats/private channels, Copilot, Power Platform, many Entra objects, and Microsoft Forms are export-only or unsupported, so you cannot truly "back up everything and restore it exactly as before."



AI-based deep dive research based on Afi.ai (05/2026)

Perspective of SaaS Vendor

Core Business Model

- Buy commodity storage & compute
- Develop product software
- Implement automated operations
- Sell convenient solution to business problem

Standardization = Economy of Scale

- Standardize problem, solution & processes
- Prioritize new over existing users
- Only good enough to lure users in:
  “looking good” is good enough
- Capitalize user lock–in via pricing

Benefits of Data Gravity

- Adding data is free & easy
- Taking out data costly / not possible
- Data attracts more data
- Compute goes to data to avoid transfer costs

Skip the Hard Problems

- SLA promise *service availability*, not *data*
- Don’t care about actual customer data
- Abuse by 3rd party: Works as designed
- Protect only against own failures

SaaS Backup & Recovery: Ungraceful Degradation



Original



Restore



Recover





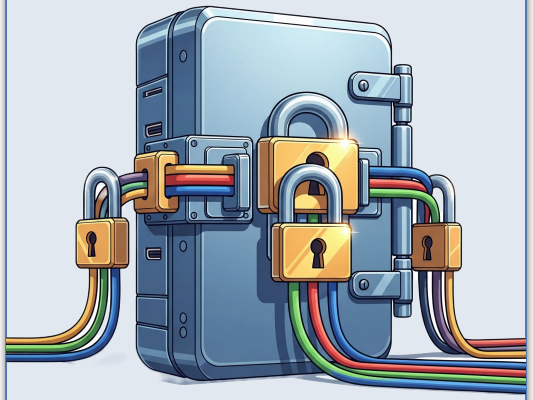
- Comprehensive Backup Tooling
- Exit Strategies
- Data Sovereignty
- Change Management
- Identity Federation
- Delegated Privilege Management
- Complete API Access
- Neutral Data Formats

⚠️ Non-Functional Requirements ⚠️

Escaping the SaaS Trap

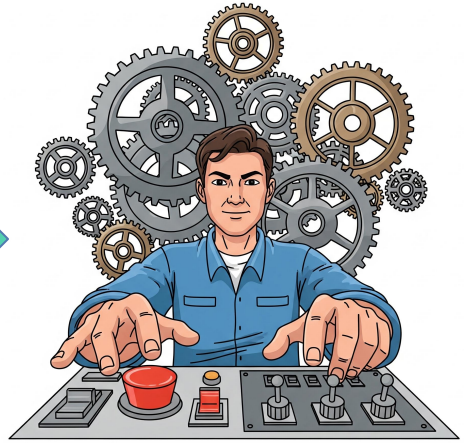


The Path to Sovereignty



Data Sovereignty

We have our data



Technical Sovereignty

We own our processes and operations



Political / Legal Sovereignty

We own our decisions & destiny

Lifeboat Architecture: Use SaaS, Have Data



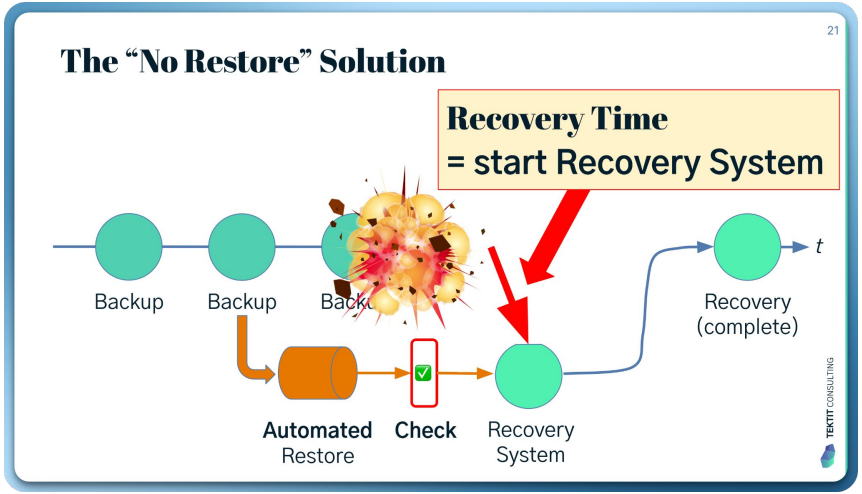
Keep a full copy of your data in **your own possession** while making full use of SaaS offerings.

schlomo.schapiro.org/2026/02/the-sovereignty-bluff-tenants-in-our-own-business.html

Building your “Minimum Viable Company”

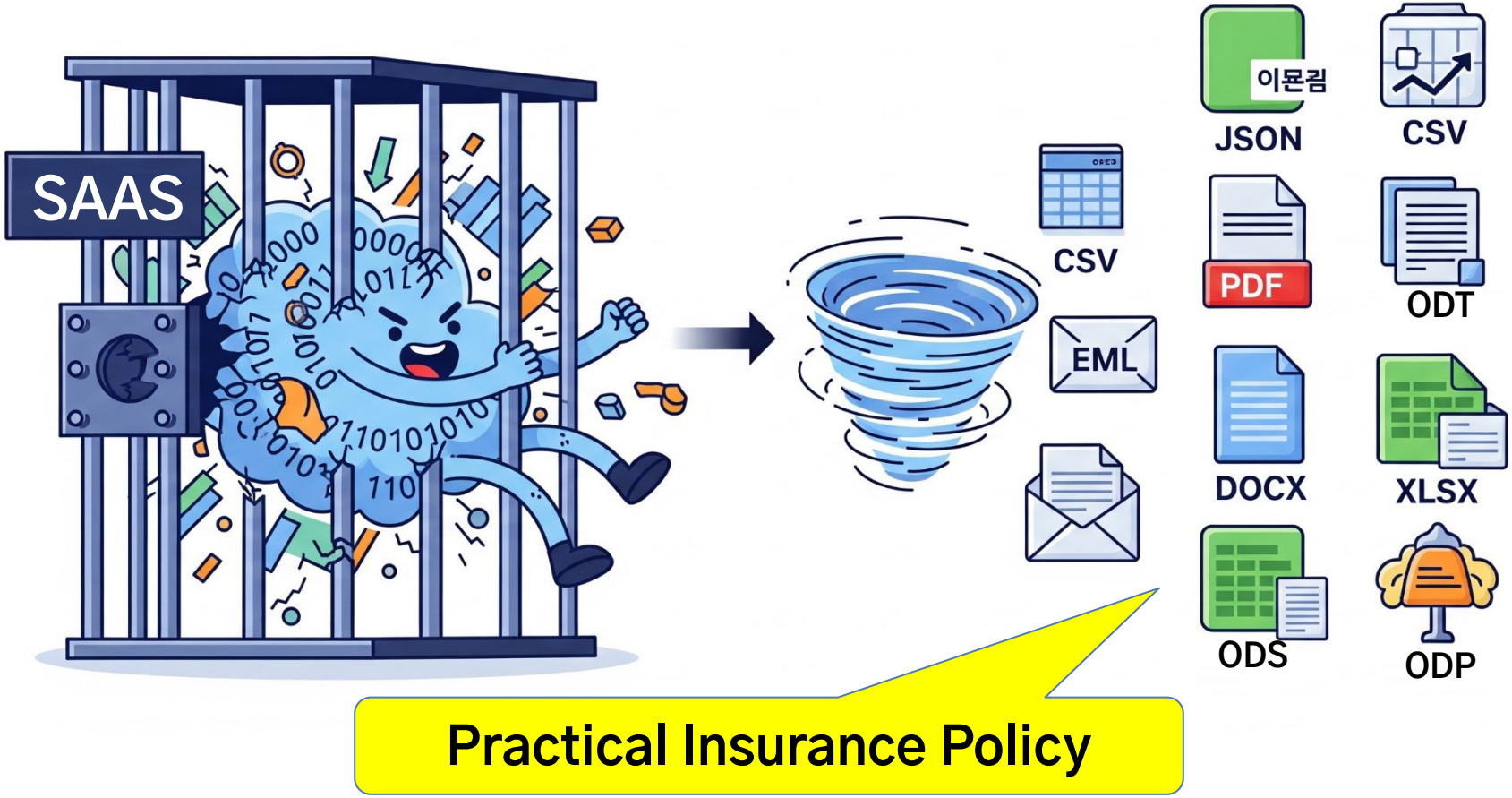
Mission Critical Systems:

- Core business applications
- Communication & Collaboration
- External Facing web / phone / …
- … what **keeps the money coming** in …





Data Jailbreak: Export to Open Data Formats



Example: Affordable Offline Backup Google/M365





- Synology Plus models (also QNAP)
- Backup Mail, Calendar, Contacts, Drive
- Export to MS Office formats
- Local data export without Internet & Cloud possible
- 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 and more

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. I don't recommend cloud-based solutions as they don't provide true data sovereignty.

schlomo.schapiro.org/2022/04/

Example: AI Coding for Backup Tooling

Context: Harvest time tracking operative backbone for consultancy firm

Problem: SaaS vendor offers no backup

Solution:

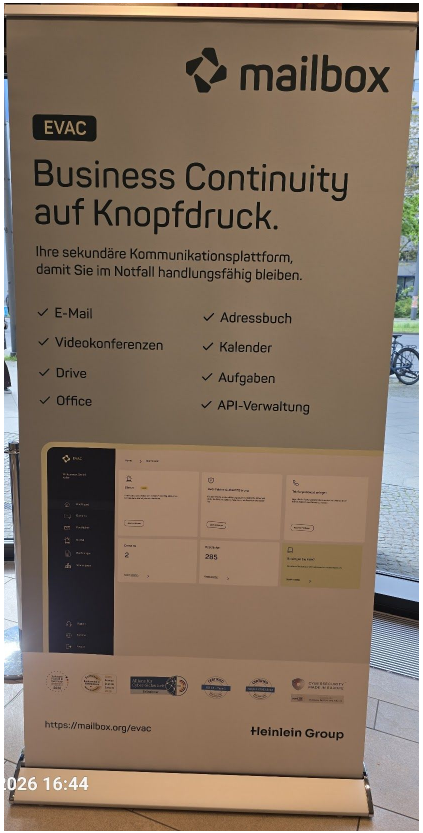
- Cursor AI: *Based on Harvest API spec, create a backup tool that runs in a Docker container and downloads all data incrementally, storing it in the plain JSON formats used by the API*
- Cost: 50€ & 2 days occupation as background task
- Save raw JSON from API
- Recovery strategy
  1. Restore via API to Harvest (HTTP PUT)
  2. Use AI to convert data to future **different** tool



schlomo.schapiro.org/2026/01/no-export-button-no-problem-how-i-used.html, Open Source

Example: Mailbox.org EVAC

- On demand PIM environment
- Ready-to-use in case primary PIM not available
- Ultra low cost, contains no data
- Enables quick recovery of critical communication and collaboration capabilities after a major outage
- Managed services on top of Mailbox.org, providing full Mailbox.org featureset when needed at regular pricing.



mailbox heinlein

Recap: Digital Sovereignty = Exit the SaaS Trap

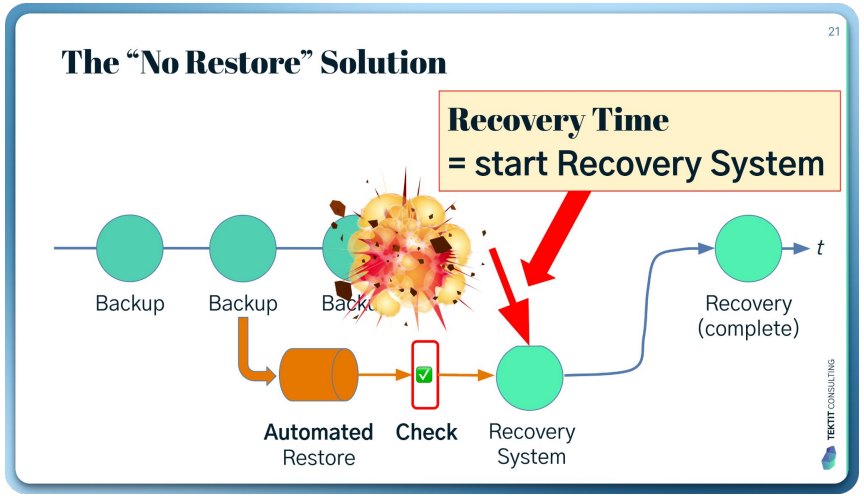
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Comprehensive Backup & Restore Automation
is the means to enable
Disaster Recovery and Business Continuity

Use the Same Backup for
Restore and Disaster Recovery

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Master Plan:

- Backup everything – Lifeboat Architecture
- AI-development to create backup tooling
- Minimum Viable Company – **Instant recovery** for **critical systems**
- Accept data loss after SaaS outage, focus on company survival

FIRST STEPS

TRIAGE

TEKTIT CONSULTING

Q&A — How may I help you?



tkt.dev/schlomo

We are not consultants. We are Partners, Coaches, Humans, Enablers, Catalysts, Sparring Partners, Experts … and sometimes a little annoying.

I focus on **IT strategy**, IT governance, technology and architecture management, security and compliance automation, related organisational changes, business continuity, open source and cloud technologies – and I'm available as a Principal Engineer or Technical Product Owner for short-term / interim support.

Examples:

- **Business-IT alignment & leveraging**, developing required skills and abilities for 21st century IT, leverage AI
- **SaaS compliance & governance**, data possession vs. ownership, IAM, integrations, backup & DR, shadow IT
- **Compliance Automation**, finding the "golden path" to a "golden state" via **Platform Engineering**
- **Secrets Management** for Datacenter, Cloud Infrastructure, IaaS/PaaS/SaaS
- **Open Source**, from usage to contribution, writing policies, using SBOM, establishing Open Source Stewardship
- **Good Engineering Practices**, GitOps, test driven development, good architecture decisions, known tech strategy
- **Business Continuity and Disaster Recovery** for office, Cloud infrastructure, data center & SaaS, with quality assurance, emergency communication & collaboration, hot & cold standby, no-restore solution, ransomware protection, Linux Disaster Recovery / Bare Metal Restore with "Relax and Recover (rear)" Open Source tooling

schlomo@tkt.dev



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AI Self-Check

ai-check.tektitconsulting.com

Keine Zeit?
Hinterlass auf der Seite Deine Email und wir schicken Dir den Link zu für später.

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