



Kontrolle zurückgewinnen!

Wie Open Source Ihre digitale Souveränität stärkt



Armin Warda

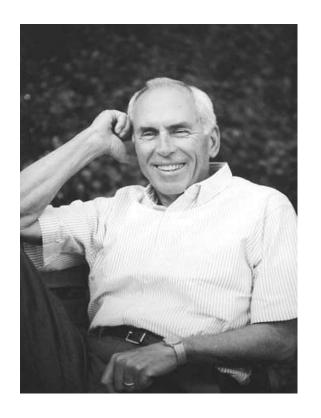
EMEA FSI Technology Lead Red Hat GmbH





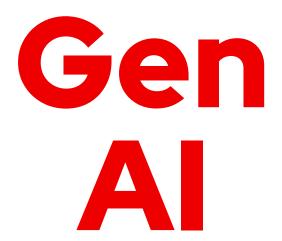
Roy Amara 1925 – 2007

"We tend to overestimate the effect of a technology in the short run and underestimate the effect in the long run"





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- Autonomous Al agents refining their decision-making over time without need for human oversight.
- Highly specialized diagnostic systems in industries like healthcare, IT support, finance.
- Enterprise AI assistants that dynamically adapt to user needs beyond rigid RAG-based solutions.
- Al-powered software engineering tools that self-debug and optimize code based on failure reports and performance feedback.



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Hyper Scaler Cloud



Bugs happen

The October 24th global AWS outage



Platforms including

- Signal, Snapchat, Roblox, Duolingo as well as services such as banking sites
- Lloyds Bank, Halifax, Venmo Payments and the
- Ring doorbell, Eight Sleep smart bed companies were some of the
- 2,000 companies affected by the outage, according to Downdetector with more than
- 8.1m reports of problems from users across the world.

Who has a say in defining recovery priorities, if not all customers can be brought back online at once?



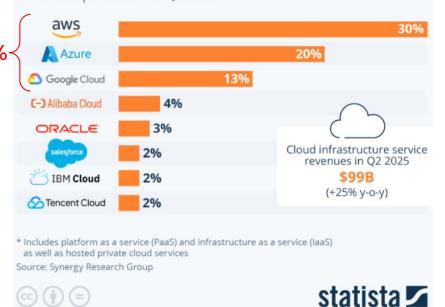
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Concen tration Risk



The Big Three Stay Ahead in Ever-Growing Cloud Market

Worldwide market share of leading cloud infrastructure service providers in Q2 2025*



Concen tration Risk



Resilience bleeding into sovereignty: configuration errors happen

Google accidentally deletes investment fund from its cloud platform



More than half a million UniSuper fund members went a week with no access to their superannuation accounts

- Duplication in two geos didn't help, because the whole GCP subscription was deleted
- Deletion grace period was also misconfigured

UniSuper was able to eventually restore because they had backups with another provider

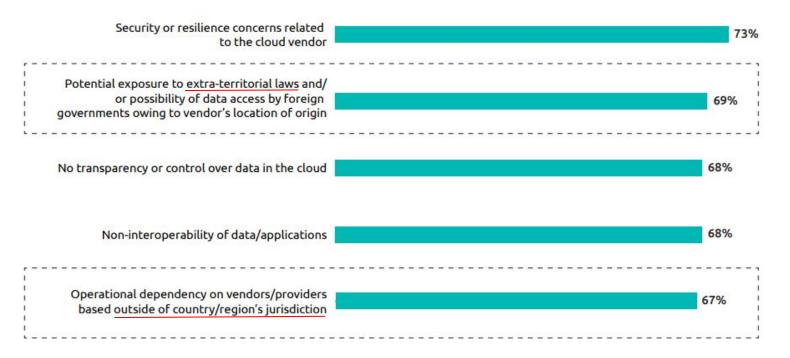






Digital Sovereignty -why?



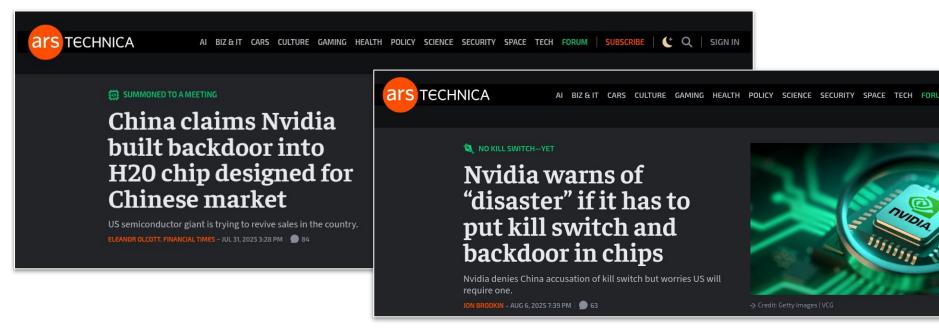


Source: Capgemini Research Institute, Cloud Sovereignty Survey, May-June 2021, N = 1,000 organizations.



Back-doored, kill-switched, geo-fenced?

Is this just fake news? Spreading FUD* to damage business?





War bleeding into tech: kill-switched tractors

What John Deere did to Russian looters, anyone can do to farmers, anywhere.



Remote bricking of Ukrainian tractors raises agriculture security concerns

- Modern tractors are intelligent machines
- Hackable tractors are vulnerable to sabotage
- Tractors VIN-locks fueled the "right to repair" movement



Cyberwars bleeding into tech: Back-doored critical infrastructure

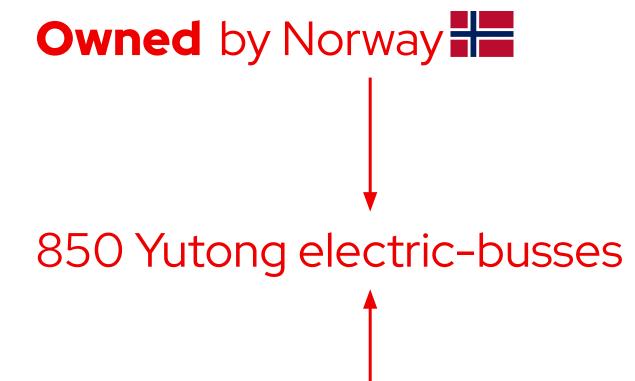
Rogue communication devices found in Chinese solar inverters and batteries



- "Backdoors in Chinese components raises energy security concerns"
- "China Holds a Kill Switch to European Power Grids"
- "US energy sector at risk, as Chinese inverters are under investigation for suspicious communication gear"





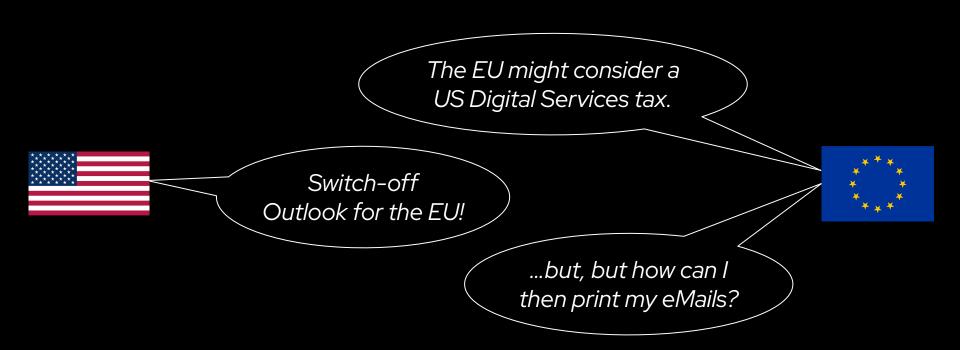


Controlled by China

you are able to execute

CONTROL





Could this really happen?

Geopolitics bleeding into tech: immediate service denial

Sanctions make it impossible for Microsoft to continue providing cloud service to the ICC's chief prosecutor

Exclusive: US could hit entire International Criminal Court with sanctions soon

By Anthony Deutsch, Humeyra Pamuk and Stephanie van den Berg September 23, 2025 4:45 PM GMT+1 · Updated September 23, 2025



British ICC chief prosecutor lost access to email and has bank accounts frozen after Trump sanctions on top court



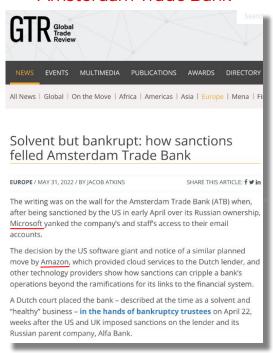
The US imposed sanctions on Karim Khan in February 2025 in response to the ICC issuing arrest warrants for Israeli prime minister Benjamin Netanyahu and his former defence minister Yoav Gallant in November

Reuters: "Microsoft's email block a wake-up call for digital sovereignty"

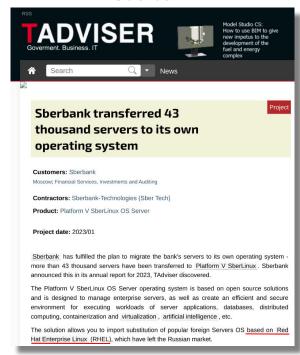


How did Russian (owned) banks deal with US sanctions impacting IT delivery?

Amsterdam Trade Bank



Sberbank





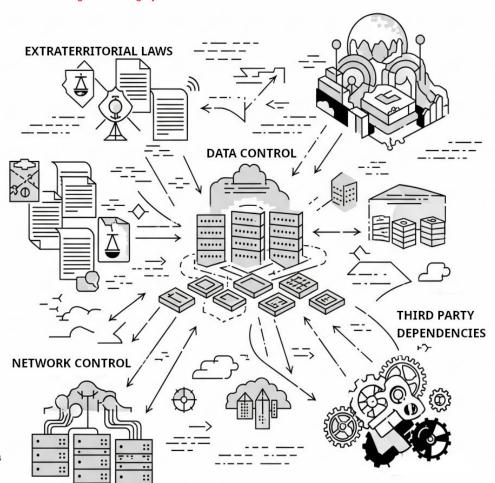
What is Digital Sovereignty?





Digital sovereignty refers to the ability to have control over your own digital destiny – the data, hardware and software that you rely on and create.



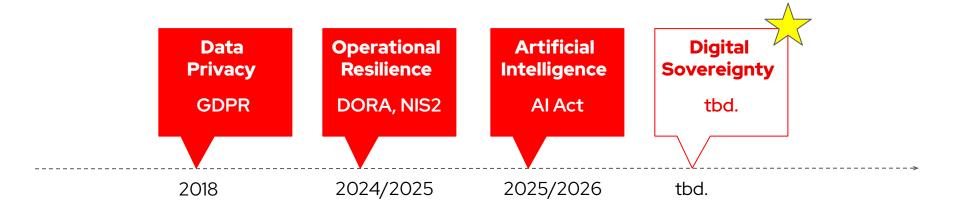


- Digital sovereignty is a nebulous concept
- Third-party
 dependencies and
 vendor lock-in pose risks
- Evolving regulatory landscape and extraterritorial laws create challenges



IT and Cloud usage is being reshaped by emerging regulatory requirements

The European Union is pushing ahead with regulations





The **Dimensions** of Digital Sovereignty

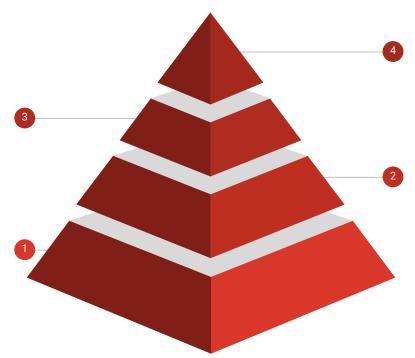
Digital Sovereignty is a continuum, reflecting a range of practices and policies to manage and control digital assets, data, and technology infrastructure

Operational Sovereignty

Visibility and control over provider operations from provisioning and performance management, to monitoring of physical and digital access, to the infrastructure

Data Sovereignty

Maintaining control over how data is collected, classified, processed and stored to ensure that data regulations are met.



Assurance Sovereignty

Ability to independently verify and assure the integrity, security, and reliability of digital systems and processes including resilience of critical services.

Technical Sovereignty

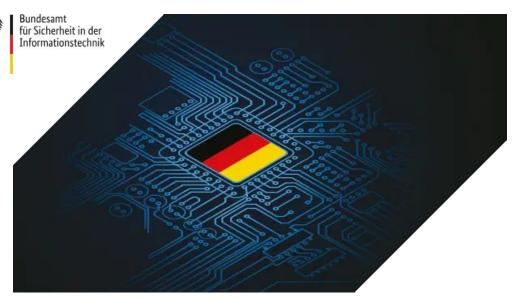
Running workloads without dependence on a provider's infrastructure or software, and protected from all extra-territorial interference and scrutiny.



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Digital Sovereignty - a pipe-dream?

BSI President Plattner (12.8.2025): "Digital sovereignty for Germany is currently unattainable"



Public sector and companies remaining dependent on non-European technology:

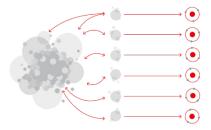
- "Wir haben technologische Abhängigkeiten an ganz vielen Stellen." Es sei unrealistisch zu glauben, "dass wir das kurzfristig alles selbst können werden", sagt Plattner.
- "alles selbst" ~ DIY?
- Buy European?
- Build European?



There's a better way

Open Development & Support Model

Enterprise Open Source



- built transparently in the open
- built and controlled by global communities
- long-term enterprise support by commercial companies such as Red Hat

Open Deployment & Operation Model Open Hybrid Cloud



use **multiple** computing environment, and keep the option to switch environments

- US Hyperscaler Clouds
- regional Sovereign Clouds
- on-premise Data Centers, Edge locations

use Confidential Computing*





Confirmed Sovereign Support for European Union (CSS-EU)

- Dedicated EU-Citizen staffing Access to support expertise delivered by verified EU citizens operating solely within the 27 EU member states.
- **Localized operational control** Reinforces that EU technical support oversees the provision of support services.
- 24/7 in-region availability Provides round-the-clock technical support delivered within the EU region, aligning with sovereignty and service continuity requirements.
- **Expansive local ecosystem** Red Hat's approach is further amplified by its robust ecosystem of more than 500 EU cloud partners, many of whom already offer sovereign clouds. This powerful network helps strategically reduce reliance on non-EU hyperscalers, providing customers with robust, local alternatives that align directly with regional regulatory policies and economic priorities.
- **Foundation for sovereign cloud** Red Hat Confirmed Sovereign Support is built to underpin Red Hat's broader open hybrid cloud and Al portfolios, enabling organizations to deploy, run and maintain both current and future IT estates independently across any sovereign cloud environment.



Navigating the EU's stringent regulatory and compliance frameworks demands an open source-driven, transparent, auditable foundation and a local operational support model. Red Hat Confirmed Sovereign Support offers exactly that: a fully EU-anchored support experience, run by EU citizens for EU organizations backed by the trust of our open hybrid cloud portfolio.

Chris Wright

CTO and senior vice president, Global Engineering, Red Hat



An example of Assurance Sovereignty

Reproducible Container Builds

- RHEL 10.1 and RHEL 9.7 both feature reproducible builds for container tools
 Podman and Buildah
- Previously, container images based on the same inputs still had slight variations, such as different timestamps.
- With this update, container images built with identical content will yield identical images with no timestamps or other metadata creating inconsistencies.
- That's a boost for security, reliability, efficiency, and assurance sovereignty







Reproducible builds are a set of software development practices that create an independently-verifiable path from source to binary code.

A build is reproducible if given the same source code, build environment and build instructions, any party can recreate bit-by-bit identical copies of all specified artifacts.

https://reproducible-builds.org/



Open Hybrid Cloud

Use any hyperscaler, sovereign or private cloud, managed or self-managed





The Red Hat Difference: Keep Your Options Open!

Red Hat can help customers improve operational resiliency.

Red Hat platforms are cloud-independent and provide application portability

Red Hat is
Open Hybrid Cloud

Open Source and its community approach helps customers to innovate while giving much more control over security & risk management.

Red Hat is
Open Source

Red Hat products are open source and use open standards offering **freedom of choice**.

Open Source does not lock-in customers





Thank you



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