16. Hosting

Summary

- Define Azure as the primary cloud foundation but keep EU-based providers (e.g. OVH) on standby for geopolitical or redundancy needs.
- Adopt a cloud-native, off-the-shelf approach—use managed services where possible, track third-party reliance, and codify everything via infrastructure-as-code.
- Build business continuity with local/offline backups, multi-region redundancy, and escrow-ready infrastructure and documentation.

Pending Decisions

- Final selection of secondary and “local” hosting providers for failover or EU-focused customers.
- Scope of managed vs custom services (e.g., email, helpdesk) and associated contractual/SLA terms.
- Detailed escrow requirements and hand-over processes.

Open Items

- Author infrastructure-as-code templates for core networking, compute, storage, and database resources.
- Document offline backup procedures, storage locations, and restore drills.
- Define multi-region redundancy strategy (which regions, failover triggers).
- Catalog SLAs, data-jurisdiction, and compliance obligations for each provider.

Overlaps with

- **(almost) everything**, mostly depending on the choice of how many and how advanced off-the-shelf services we buy vs develop our own
- maybe the biggest inter-dependency is with the 15. Team Agreements & Guidelines: which people need to have a very good knowledge about this domain or vice-versa, this topic should influence the team composition

Overview

We need to choose a general hosting provider the system’s foundation, a base for compute, storage, networking and database, to form a strong ecosystem, with tight integration for performance, security, same tech stack, etc..

Apart from that, there are needs for special services and products which we also may not want to offer on our own (e.g. emailing, helpdesk, etc...) and for those reasons we may want to pick specialized companies focusing on a small set of offerings and really excelling at those, price and quality wise. In such cases too, make sure to consider the agreements coming with such services and products too. Understand where the data is stored, who can access it, what are the hand-over processes, SLAs, etc..

Base hosting provider → Azure

> Big US cloud provider or not

Geo-political, "local" economical and over-reliance reasonings

- The LISAX system, and LISA as a whole company for that matter, is built 90-95% on Azure. And similarly, experience and current up-to-date-ish tech skill wise Azure is the top contender.

  Microsoft (Azure) seems to be a safer and more reliable partner for a European headquartered company and project (a recent announcement that promises this: Microsoft announces new European digital commitments - Microsoft On the Issues, in contrast to lack of similar level of support from AWS, plus the general fact that Azure has 3-4x more data centers, presence and customers in the EU than AWS). But then again... it is Microsoft.

- There is Amazon's AWS on second place perhaps, some stakeholders (among management and engineering levels) have various know-how across certain AWS services. And if needed more knowledge could be gathered and/or onboarding new people (I guess).

- On the other spectrum, we can easily have an overreliance on US tech giants. And at the same time certain (EU) customers might have a higher liking to businesses with a more European tech focused approach and in that respect we have already ventured into "local" cloud hosting providers, e.g. OVH. That route could be build on top of or at least left open for more experimentation and backup purposes at least.

Rule of thumb

Cloud native with pragmatism; try not to reinvent the wheel, follow industry standards and choose more off-the-shelf solutions by providers. While at the same time keeping track of the amount reliance due to such choices. And never forget that the Cloud is a shared responsibility (What is the Shared Responsibility Model? | CrowdStrike), not everything will be handled on a silver plate and chewed for us, even by AI.

Alternatives

Consider "local" alternatives too, with the aforementioned reasons.

e.g. Service categories | European Alternatives

Local redundancy, backup in any case

Data, source code, any intellectual property is crucial, that makes up the *current* value of the business. So keeping a local (offline, away from clouds and AIs and such) well secured, backup of such things is ideal.

Escrow

Keep in mind, in some cases, the need for business continuity requirements. Infrastructure-as-code and documentation to the rescue.