



General Topic or Industry | Solution Name

# Inside SAP Sovereign Cloud

How the architecture, security model, and deployment options work

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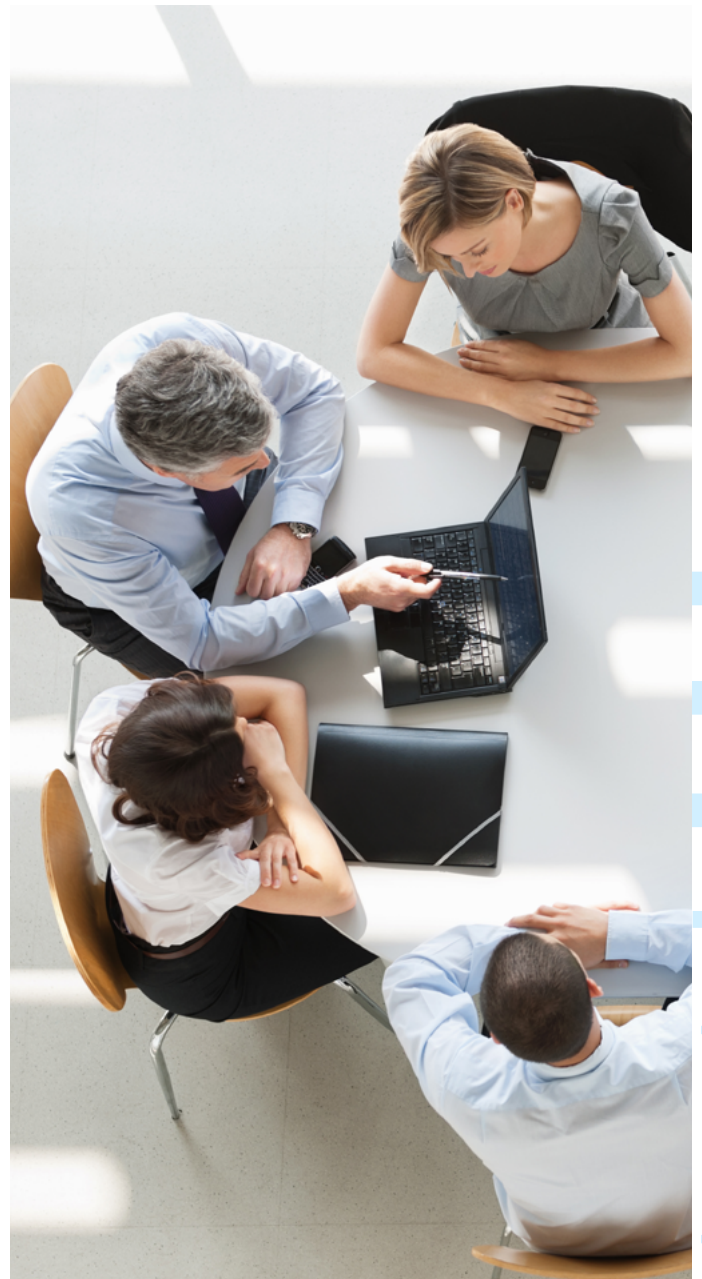
# A better understanding of digital sovereignty

How it works, why it's different from other cloud offerings, and deployment options

Organizations today must navigate regulatory constraints and data sovereignty requirements while also balancing control with innovation. This paper distills insights from the SAP webinar titled “Inside SAP Sovereign Cloud: Key Differentiators & Architecture” to provide clarity on digital sovereignty and its foundations. It also explores the four dimensions SAP uses to define digital sovereignty.

## Maintaining speed and compliance

A common concern for many organizations is that sovereign environments slow down innovation. On the surface, it seems logical that heightened regulatory and compliance requirements would lead to limitations and functional degradation. Digital sovereignty is a bit more complex than it initially appears. SAP defines digital sovereignty across four dimensions: data, operational, technical, and legal. Designed correctly, it actually enables speed and scale.



# Four questions that determine the right approach

Understanding factors like data and regulatory obligations can help

Organizations should start by evaluating factors such as data sensitivity, geographic or regulatory restrictions, compliance obligations, industries they serve, and industry-specific requirements.



## **Data sovereignty: Where does your data live, and who can touch it?**

Data, including backups, remains within a single jurisdiction or approved region and is compliant by default. This applies not just to primary data but to log data as well, covering the full scope of what an organization needs to keep within its borders.



## **Operational sovereignty: Who runs the environment?**

Only vetted, security-cleared nationals operate the systems, working from cleared facilities that meet local requirements. The people managing these systems manage only these systems.



## **Technical sovereignty: How is the environment governed?**

A localized control plane, strong tenant separation, and full encryption keep operations contained within the boundary. Equally important is how innovation enters: new software does not flow freely into sovereign environments. It passes through a controlled, secured, validated, and approved process, which is always initiated by the local operations team (pull-based) before it is deployed and made available to customers.



## **Legal sovereignty: Which laws apply?**

Everything, contractually and legally, is governed by local entities operating under local jurisdiction. The goal is to ensure that what organizations build and operate in a sovereign environment cannot be reached or disrupted by the legal framework of another jurisdiction.

As Mary Carol Falk, who leads product strategy for SAP Sovereign Cloud Services, explained during the session, customers weighing this decision should ask themselves what data they hold, what regulations apply to them, and what their risk appetite is. The answers look different for every organization, but the four questions stay the same.

# Understanding the Information Security Boundary (ISB)

The ISB defines a virtual boundary around allocated infrastructure resources

The architectural core of SAP Sovereign Cloud Services is the Information Security Boundary (ISB): a virtual boundary that ensures isolation from other tenants sharing the same underlying infrastructure. The ISB defines where data lives, how systems are operated, and how software enters the environment.

Inside that boundary, responsibilities are separated strictly and technically, not just organizationally. Local operators work only through a hardened control plane that mediates every action. No direct human access to customer data or workloads is possible by design.

“Security is enforced by automation, not by trust,” said Jean-Philippe Lombardi, who leads security innovation and engineering for SAP Sovereign Cloud Services.

Access is just-in-time and time-limited, requiring documented business justification and four-eyes approval. Operators never hold encryption keys. Data stays encrypted at rest and in transit. The system is designed so that, in Lombardi’s words, “you do not need to rely on trust alone.”



# Choosing the right deployment option

Hyperscaler, SAP Cloud Infrastructure, and on-site options built around your regulatory requirements

SAP Sovereign Cloud is available through three deployment options. Organizations are empowered to choose the model that works best for their needs and requirements.

## Hyperscaler

This model helps customers quickly scale their resources depending on their needs, allowing for flexibility and seamless integration.



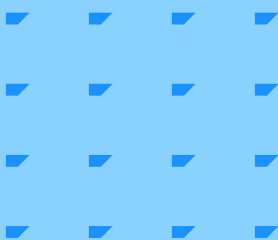
## SAP Cloud Infrastructure

For European customers, SAP Sovereign Cloud is also available on SAP's own cloud infrastructure, giving organizations the option of using SAP's proprietary environment instead of a third-party hyperscaler.



## SAP Sovereign Cloud On-Site

For organizations whose regulatory requirements mandate the highest degree of control, SAP Sovereign Cloud On-Site brings the full sovereign stack into a customer's own data center or one selected by the customer. This option is available for select customers whose requirements mandate full control over their data.



The right model depends on an organization's specific needs, requirements, and what its regulators require. All three options deliver solutions that are fully sovereign.

# Moving forward with digital sovereignty

Greater control and assurance without compromising scalability and innovation

SAP Sovereign Cloud is designed to give regulated organizations greater control and assurance without compromising scalability and innovation. The deployment options explored in this paper allow organizations to choose the model that best fits their regulatory and business requirements.

The technical foundations covered here show how innovation and digital sovereignty can move at the same speed. And the security and compliance model makes one thing clear: these are not features added on top of SAP Sovereign Cloud. They are built into the core of the offering.



## Watch the webinar

See the full conversation with Mary Carol Falk, Markus Cherdon, and Jean-Philippe Lombardi on demand.

[View now](#)



## Explore SAP Sovereign Solutions

Dive into SAP Sovereign Cloud and its deployment options available in your region.

[Learn more](#)



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