IDC eBook

State of Sovereign and Industry Cloud Investment by Asia/Pacific Governments

By Louise Francis and Ravikant Sharma

IInterest in sovereign cloud among Asia/Pacific (AP) government organizations is escalating. The genesis of the sovereign cloud opportunity in AP's governments can be found in the growing demand for digital sovereignty, rapidly reshaping government digital agendas.

This eBook cites recent survey data on Asia/Pacific governments' investments in sovereign and industry clouds, and insights from the IDC Perspective, "State of Sovereign and Industry Cloud Investment by Asia/Pacific Governments, 2024" (#AP51593324).It covers adoption trends, investment plans, challenges, and the providers' landscape, providing insights into providers' strategies and actionable advice for government entities navigating sovereign clouds and digital sovereignty trends.

What is Digital Sovereignty?

IDC defines digital and cloud sovereignty as

- Digital sovereignty is "the capacity for digital self-determination by nations, organizations, and individuals," and sovereign cloud is one of the key initiatives enabling this objective.

- Sovereign cloud is a subset of digital sovereignty, which IDC defines as an architecture that is enabled to meet a country's data residency, sovereignty regulatory, and audit requirements (*Source: Considering a Sovereign Cloud? A Blueprint for IT and Business Executives [IDC #US50568522, April 2023]*).

- There are various types of sovereign cloud providers actively investing in the Asia/Pacific region, namely:

  - Hyperscalers - Amazon Web Services (AWS), Google Cloud, Microsoft Azure
  - Cloud service providers - IBM, Oracle Sovereign Cloud, VMware/Broadcom Sovereign Cloud, NxtGen Sovereign Cloud

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In 2023, of those Asia/Pacific government agencies surveyed,

17% already utilize sovereign cloud services, while almost a third intend to adopt a sovereign cloud solution within the next two years.

36% are evaluating the feasibility of these solutions but have not finalized their decisions yet.

Source: IDC's Future Enterprise Resiliency and Spending Survey, Wave 1, 2023

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Significant Drivers for Growing Demand for Sovereign Cloud Solutions:

1. Growing geopolitical disruptions.
2. Rapidly expanding footprint of cyberthreats to national infrastructure and digital assets.
3. Changes in the regulatory landscape around data protection.
4. Changes in digital trade partners' regulations.
5. Economic opportunities.

Many Asia/Pacific governments support the hyperscalers' investments in local datacenter developments to boost the digital economy and future industry opportunities.

Three hyperscalers (namely AWS, Google Cloud, and Microsoft Azure) consistently adapt their sovereign cloud solutions, adding more features to enhance their appeal to government entities.

Asia/Pacific governments actively promote sovereign cloud adoption through funding and incentives, offsetting cost concerns.

Additionally, they enact policies favoring sovereign cloud solutions and collaborate with hyperscalers to develop tailored, secure solutions meeting local requirements.

Asia/Pacific Government Sovereign Cloud Benefits

Cloud maturity offers potential benefits for sovereign cloud adoption in AP government organizations depending on their stage of the cloud journey.

Some benefits of employing sovereign cloud solutions are

- **Ability to improve security of data**
- **Compliance with data residency regulations**
- **Sovereign control over infrastructure**
- **Fostering transparency and accountability**
- **Support for local economies through the protection of IP creation**
- **A reduced reliance on offshore providers**
- **Alignment with national security interests**
- **Potential to enhance performance for government applications**

Local investments by hyperscalers will play a vital role in decisions for implementing sovereign cloud solutions, to address demands for data residency and jurisdictional control for sensitive information.

Asia/Pacific Government Sovereign Cloud Challenges

There are operational challenges for those using sovereign cloud solutions.

Government organizations' biggest concerns when considering a sovereign cloud strategy include

- **High implementation costs due to infrastructure building and integration costs**
- **Complexity (such as integration with cloud systems and regulatory road maps)**
- **Security**
- **Potentially putting a handbrake on innovation**

By 2023, the adoption of cloud by Asia/Pacific's government organizations' will vary by country. However, overall, the sector lags behind other industries, with three-quarters still identifying their maturity as ad hoc or opportunistic, compared with half of other industries.

Source: IDC's 2023 Asia/Pacific Cloud Survey

"Asia/Pacific government organizations are assessing sovereign clouds for data control, security, and regulatory benefits while addressing concerns about security, costs, and reliance on vendors. **Successful adoption requires prioritizing investments, classifying data, and aligning trust with organizational goals.** Vendors must educate thoroughly and offer practical solutions for effective sovereign cloud implementation."

Ravikant Sharma,
Senior Research Manager, IDC Government Insights
IDC Asia/Pacific

Hyperscalers' Investments Are Shaping the Sovereign Cloud Landscape in Asia/Pacific
Below are some examples of government moves in Singapore and Australia toward sovereign cloud adoption.

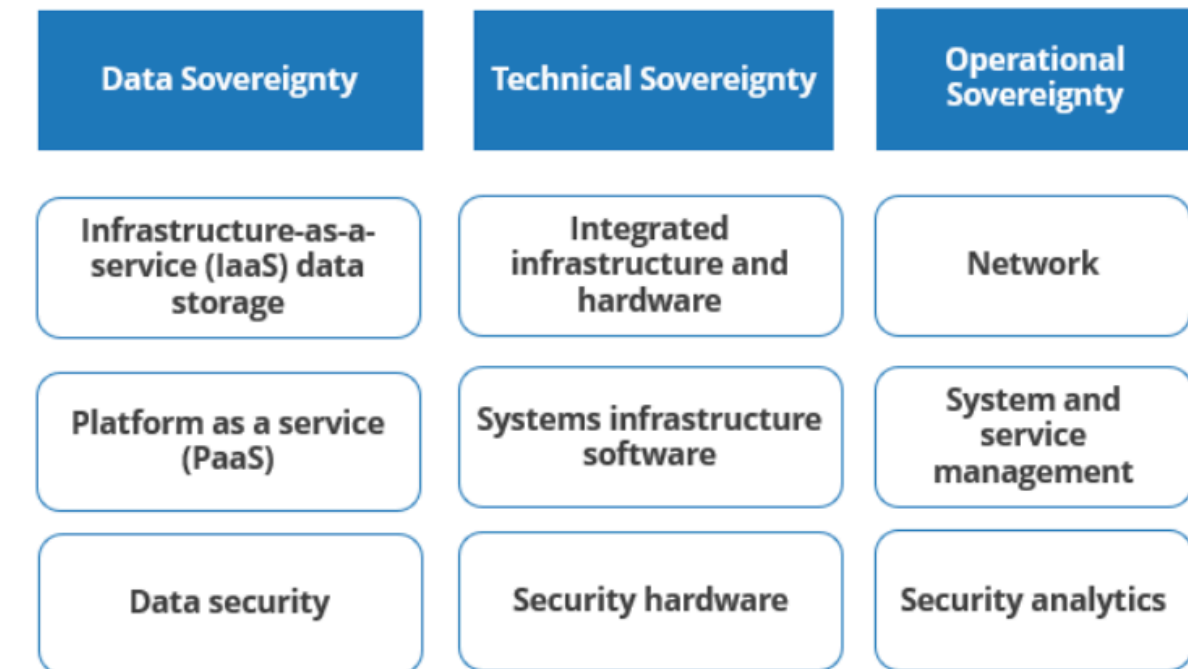|	
Home Team Science and Technology Agency (HTX)	Developing a sovereign cloud solution with Microsoft, along with high-speed network connectivity and advanced analytics, to accelerate digital transformation (DX) and innovation in HTX.
AWS	Launched its Dedicated Local Zones with the Smart Nation and Digital Government Group (SNDGG) to address the country's digital sovereignty needs in August 2023.
Centre for Strategic Infocomm Technologies (CSIT) and Google Cloud	Announced a partnership to pilot a sovereign cloud solution in November 2023, with the aim of leveraging AI to address defense and security challenges.
Oracle Cloud Infrastructure (OCI)	Launched a government cloud in Canberra, Australia, catering to federal, state, and local governments, along with defense clients. It provides a specialized platform with over 100 services, isolated from commercial regions, ensuring dedicated support for Australia government operations. Similarly, Bangladesh Data Center Company Ltd also opted for Oracle Dedicated Region Cloud@Customer to furnish sovereign hosted cloud services to the Bangladesh government.

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The Hyperscaler Sovereign Cloud Competitive Landscape

Many organizations have voiced concerns regarding the limited choice of sovereign cloud partners and the lack of required cloud features, among other notable challenges.

Major vendors, such as AWS, Google, Microsoft, Oracle, IBM, SAP, and VMWare, are proposing solutions that generally fall into two categories.

- **Designed for sovereignty:** Tailored for the sovereign cloud market and branded accordingly.
- **Sovereign by design:** Vendors claiming that their solutions have been developed with built-in sovereign controls from the start or can incorporate such controls into existing products

FIGURE 4: Sovereign Cloud Market — Primary Segments

Data Sovereignty	Technical Sovereignty	Operational Sovereignty
Infrastructure-as-a-service (IaaS) data storage	Integrated infrastructure and hardware	Network
Platform as a service (PaaS)	Systems infrastructure software	System and service management
Data security	Security hardware	Security analytics

Source: IDC, 2024

Perceptions are expected to shift in 2024, as vendors in the region have dedicated the past few years to establishing their presence in the sovereignty market.

In the coming years, around 20% of government organizations in the Asia/Pacific region are expected to increase spending on sovereign cloud solutions.

Advice for Sovereign Cloud Providers

Despite the variety of approaches, all sovereign cloud providers will encounter distinct challenges in this market.

☑ **Prioritize educating the market** as not all government organizations fully understand or agree on the concept of digital sovereignty.

☑ **Engage all stakeholders** in discussions about digital sovereignty to ensure fluency in communication.

☑ **Assist and address top challenges** reported by government organizations regarding sovereignty - complexity and costs. **Address sovereign cloud inflexibility with a hybrid approach**.

Advice for Technology Buyers

☑ Government organizations in the Asia/Pacific region must **exercise caution** when adopting sovereign cloud solutions to minimize security risks, potential vendor lock-in etc.

☑ **Advocate transparent practices** from sovereign cloud providers for successful adoption of cloud solutions.

☑ **Focus more on governance and compliance, and prioritizing sovereign cloud investments.**

☑ **Classify the data/workload migrating to sovereign cloud** to determine which parts of their divisions' data need to shift to a sovereign cloud.

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Recommended Resources

The Impact of Digital Sovereignty in Asia/Pacific Governments

This report provides insight into the impact digital sovereignty on technology investment, regulatory frameworks, partnerships, and new skills.

READ REPORT

Preparing for the Future of the Public Sector

How can government leaders evolve their policies and guidelines to influence the application of technology to address complex challenges and achieve sustainable and resilient outcomes? Play the recoding from time code **2:09:58**.

WATCH ON-DEMAND

Navigating Generative AI: Build vs Buy

Get a copy of the e-book for comprehensive guidance across Generative AI's intricate landscape and how tech buyers & vendors should navigate the choice between the build vs. buy approach.

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Cloud customers must simplify their digital approach and base decisions on business objectives and strategies when determining workload placement. It is about finding the right equilibrium between trust and business advancement.

Digital sovereignty revolves around resilience, control, and managing IT infrastructure, all long-standing priorities in the IT realm. It is simply a matter of refining best practices within a digital context.

Are you ready to invest or adopt sovereign cloud solutions?

Contact us today to learn how IDC can assist you.