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NAVER Cloud Develops Cloud-Only HSM Services with Luna Network Hardware Security Modules

Launched in 2009, NAVER Cloud Corp is a leading cloud service provider (CSP) that provides cloud and IT services and is located in Bundang-gu, Seongnam-si, Gyeonggi-do, South Korea. After changing its name from 'Naver Business Platform' to 'NAVER Cloud' in 2020, it renewed its brand as an IT-specialized corporation that oversees NAVER B2B business. With the NAVER Cloud platform-related business rapidly growing, it provides IT solution services such as public cloud, online collaboration tools, and security are provided to various industries such as private companies, finance, public and healthcare, including NAVER affiliates.

Challenges

As the domestic financial data encryption and decryption market continues to grow, NAVER Cloud has planned Korea's first cloud based Hardware Security Modules (HSMs) service to meet customers' needs. When configuring the service, NAVER Cloud envisioned a service that meets all of the requirements for data encryption and decryption, including related security regulations and requirements during the process of migration from on-premises to the cloud, while making it easier for customers to use encryption and decryption keys independently. However, since it was the first time in Korea to develop the related services, there were no existing references such as experts in related projects and fields and past cases, making the development process difficult from the development stage to actual application and option conversion.

Technical Challenge –

At the time of the development of cloud based HSM services, the internal configuration of the services before the solution introduction could not be fully determined because the internal Virtual Private Cloud (VPC) network was being built. Therefore, NAVER Cloud considered industry-proven solutions to reduce variables in the development process as much as possible and secure safety to meet the internally determined service launch deadline. It also needed a product with a developmental interface and visibility for high compatibility and development. For most products in the HSM market, SDK itself was provided as a limited platform service, which limited the development.

NAVER Cloud

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– Tak-Kyun Koh
  Development Team Leader of NAVER Cloud
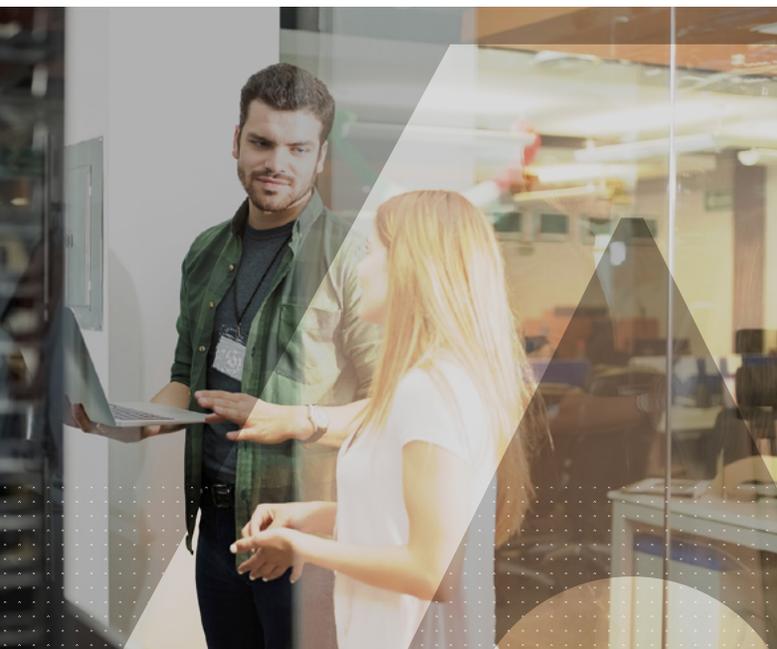
Solution –

What NAVER Cloud was focusing on was the speed and stability of HSM, and various development interfaces and operational convenience. In addition, traditional HSM solutions place a lot of pressure from the introduction stage, such as high initial cost and resource constraints for operation, if the enterprise configures its own services.

NAVER Cloud focused on developing the services by utilizing the characteristics of cloud services. Thales' HSM solution is compatible with performing the same cryptographic function in the organization's existing environment, and scalable to meet the needs of all environments, including on-premise, hybrid, and multi-cloud, with fast and robust performance. It has also become an industry standard, supporting business continuity by complying with standards for various regulatory and cloud environments such as GDPR, eIDAS, HIPAA and PCI-DSS. On top of that, it is already deployed in the industry's largest number of public cloud environments, making it safe and versatile. NAVER Cloud said it chose Luna Network HSM by taking note of these benefits.

"In the process of developing an initial configuration that had no existing references, we thought a lot about it," said Tak-Kyun Koh, Development Team Leader of NAVER Cloud. "Even during the long POC period of more than five months, we were able to develop the service smoothly by securing an internally optimized configuration because we were able to fully proceed with the immediate technical support service and almost all verifications."

Results –

NAVER Cloud, which has succeeded in developing a cloud-based HSM service through Thales Luna Network HSM, is able to meet the needs of Korean customers who need to comply with encryption key management requirements under laws such as the Information Network Act and the Privacy Act. NAVER Cloud customers can use secure services with independent access through a unique connection between HSM and VPC. NAVER Cloud can provide Korea's first cloud-based HSM solution that allows NAVER Cloud to set up and manage actual customers to focus only on services used. Based on this, NAVER Cloud plans to gradually expand its supply of cloud-based HSM services to public and private institutions. On top of that, it provides optimized cloud-based HSM services to domestic institutions such as finance, public and private, enabling them to build a stronger portfolio of security solutions.

Development of NAVER Cloud's HSM Protection Solution with Luna Network Hardware Security Modules

Business Need:
- Compliance with the Personal Information Protection Act and strengthening the service portfolio by choosing the best solution for privacy of NAVER Cloud customers

Technology Need:
- Develop cloud-based HSM Service on time without existing references
- Install developer-centric, highly visible development interface
- Robust features without performance degradation in the event of encryption and decryption and meets all regulatory requirements

Solution:
- Luna Network Hardware Security Modules (HSMs)

Result:
- Develop services that migrate from an on-premise environment to a cloud environment and meet all relevant security regulations without the customer's initial burden
- Secure HSM service capabilities for the first time among domestic cloud operators

About Thales

The people you rely on to protect your privacy rely on Thales to protect their data. When it comes to data security, organizations are faced with an increasing number of decisive moments. Whether the moment is building an encryption strategy, moving to the cloud, or meeting compliance mandates, you can rely on Thales to secure your digital transformation.

Decisive technology for decisive moments.

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