

Enhance Security by Encrypting Sensitive Medical Data Using Vormetric Transparent Encryption

Jeju National University Hospital (JNUH) is a public hospital in Jeju, South Korea that provides research, education and medical treatment. To help achieve its goal of being a world class hospital, JNUH has invested in new buildings, medical specialists, and cutting edge equipment and infrastructure. The updated infrastructure consists of an integrated medical information system that includes an Order Communication System (OCS), an Electronic Medical Record system (EMR), and a Picture Archiving Communication System (PACS).

Business Challenges

Given the wide variety of highly confidential data that it handles, JNUH falls at the intersection of numerous regional, industry, and general regulatory mandates associated with personally identifiable information (PII), protected health information (PHI) and other sensitive data categories. As a demonstration of its commitment to adhere to the highest levels of data integrity, JNUH needs to exceed industry-defined requirements relating to protecting patient data, and to comply with South Korea's Personal Information Protection Act (PIPA).

Technical Challenge

Alongside its traditional protection measures the company has deployed a sophisticated set of data security solutions. The final piece of the puzzle was to identify an encryption solution that could work seamlessly with both structured and unstructured data. To be considered a viable contender, any potential encryption solution had to be capable of operating without disrupting the patient management system or PACS-related applications, while simultaneously meeting South Korea's comprehensive PIPA and protected health information (PHI) regulatory standards.



" Vormetric Transparent Encryption of Thales is the only available solution in the Korea that meets the requirements and performance such as an interruption-free system experience and an application that remains unchanged from the original"

" We are satisfied with the performance to the point where we cannot feel any delayed time and our working level staff assessment of Thales' Vormetric Transparent Encryption solution is positive. One of the largest advantages of the Vormetric Transparent Encryption is that there are fewer issues regarding performance speed and there is no need to modify the application."

— Ana Lee, Director of Medical Information Center at Jeju National University Hospital

Solution

JNUH wanted a security solution that would work seamless with both structured and unstructured data-sets, and at the same time have the flexibility to scale with patient growth and accommodate individual patient needs. We knew we needed an enterprise-class solution, so started researching four other alternative options. The Proof of Concept (POC) had a set of essential success criteria; transparent encryption of data, fast encryption/decryption, audit traceability, and support for existing systems.

The POC yielded a very positive outcome. "We were really pleased with the way the Vormetric Transparent Encryption solution worked with our PACS application," Ana Lee Director of Medical Information Center at Jeju National University Hospital said. The deployment of Vormetric Transparent Data Encryption proved to be seamless and with negligible impact on performance, this really differentiated it from the competition.

Results

Integrating the capabilities of Vormetric Transparent Encryption into its offerings enables JNUH to demonstrate its commitment to protecting the integrity of all of its patients' data and comply with regional, industry, and general regulatory mandates associated with personally identifiable information (PII), protected health information (PHI) and other sensitive data categories.

The deployment of Vormetric Transparent Encryption proved to be seamless and had minimal impact on JNUH systems. Ana Lee, Director of Medical Information Center for JNUH explained, "We installed it across our whole environment, giving us the ability to fully leverage the sophisticated key management capabilities in addition to encryption sensitive data". "The Thales and its partner company BIZTOV consultants' performance was excellent and they were always able to give us answers whenever we had any questions", recounted Lee.

Responding to Personal Information Compliance with Unstructured Data Encryption

"After deploying Vormetric Transparent Encryption, our compliance readiness regarding unstructured data has been improved," said Lee. "In inspections on how personal information is being handled compliance-related issues have been solved since the Vormetric Transparent Encryption meets security and stability requirements," added Lee.

Jeju National University Hospital is planning to upgrade its information system with the current deployment of unstructured data encryption solution. "We are currently formulating strategies on introducing the next generation information system," said Lee. "We are making multiple plans including the incorporation of big data management and mobile centered IT service aiming to build a smarter system," explained Lee.

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Deploying data encryption system through Vormetric Transparent Encryption

Business Need:

- Affordable encryption to secure patient health information to comply with Personal Information Protection Act of S. Korea

Technology Need:

- A transparent encryption solution that would not disrupt performance of the PACS and patient management system applications
- Support for structured and un-structured data
- Seamless interoperability with existing security solutions
- PII and PHI standards compliance

Solution:

- Vormetric Transparent Encryption

Result:

- Implemented a cost-effective encryption solution to secure patient data at rest
- Seamless interoperability with existing security solutions
- Able to encrypt/decrypt structured and unstructured data without application disruption
- Met PIPA and PHI compliance requirements.

About Thales Cloud Protection & Licensing

Today's enterprises depend on the cloud, data and software in order to make decisive decisions. That's why the most respected brands and largest organizations in the world rely on Thales to help them protect and secure access to their most sensitive information and software wherever it is created, shared or stored – from the cloud and data centers to devices and across networks. Our solutions enable organizations to move to the cloud securely, achieve compliance with confidence, and create more value from their software in devices and services used by millions of consumers every day.

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.