THALES

Building a future we can all trust

Cheonan City Hall enhances public privacy security using CipherTrust Transparent Encryption

Introduction

Cheonan-si is a South Korean administrative district with a population of 660,000 and 270,000 households as of December 31, 2018, located in the northeastern part of Chungcheongnam-do. Cheonan has been called "the core city of the nation" due to its location 83.6 km south of Seoul, in the northeast corner of South Chungcheong, serving as a transportation hub to the capital area and surrounding regions.

Customer Challenges

Responding to the outbreak of Covid 19, Cheonan City Hall needed to establish a system for applying for emergency aid in the form of a bulletin board on its website in April 2020. The application system for emergency aid required an encryption solution to protect the sensitive information of citizens including resident registration numbers, addresses, and phone numbers. Due to the unexpected situation of Coronavirus outbreak, officials at Cheonan City Hall needed an encryption solution to build a stable system in a short period of time.

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CITY OF CHEONAN

Technical Challenge

Cheonan City Hall needed an encryption solution compatible with other solutions installed in the web infrastructure with less than a week left before the launch date of the emergency aid application system. In addition, they planned to further expand the encryption solution for other sensitive data such as voice, image, and text stored in the web infrastructure.

Solution

Cheonan City Hall mainly focused on the agility and stability of available encryption solutions, and how various files can be safely protected. Many encryption solutions cause performance problems as encryption can overlap or be chained with other storage I/O operations, and most solutions require work process, database schema or other modifications because metadata often changes after deploying encryption and, cannot be read from databases or apps. On the other hand, Thales's solutions provide excellent performance for both encryption and decryption that are compatible the existing environments. Cheonan City Hall considered these advantages and chose CipherTrust Transparent Encryption. An official at Cheonan City Hall remarked, "Kernel encryption is the only real-time encryption method for protecting unstructured data. We recognized that Thales's encryption solution has been on the market for a long time, and the Thales team has gained and leveraged their know-how and technical skills. And we trusted our neighbor Jeonju City Hall's recent successful data privacy project previously installed by Thales."

Results

Following the successful deployment of CipherTrust Transparent Encryption for the emergency aid application project, Cheonan City Hall is considering an expansion of their data protection to include more citizens' data privacy. CipherTrust Transparent Encryption is certified to work with SAP HANA, and the Thales solution is the first CC and FIPS 140-2 certfied foreign product to be certified by the Korean National Intelligence Service with features that enable compliance with both Korean and foreign data security regulations. In addition, the transparent nature of the solution ensures that application source code and work process modifications are not needed for deployment. "One should choose a solution with both no negative effect on performance and is transparent to business processes and existing sofware -- requiring no new software development. Further, when deploying encryption, it is essential to choose a solution that does not have any speed or configuration issues. Moreover, issues such as management, challenge response, fatigue of the person in charge, and additional development must be considered. Data privacy has been applied in various forms as IT has evolved starting from database encryption in 2011 to unstructured data encryption in 2018." said, Ki-Hyun Nam of Roltech, a partner of Thales, who oversaw the Cheonan City Hall project.

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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Deploying Data Encryption System for Cheonan City Hall through CipherTrust Transparent Encryption

Business Need
- Compliance with the Personal Information Protection Act by selecting the right solution for the protection of data privacy Cheonan citizens.

Technology Need
- Safely encrypt structured and unstructured data in the bulletin board for emergency aid website.
- Works seamlessly with solutions in existing web infrastructure
- Deploy encryption and decryption without performance degradation

Solution
- CipherTrust Transparent Encryption

Result
- Successfully protected data on the bulletin board of the COVID19 emergency support application
- Ensured seamless compatibility with existing security solutions
- Secured structured and unstructured data with encryption/decryption while maintaining application availability

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