CASE STUDY

SIO S.p.A: Ensuring Trust in the Italian Legal System:

Encrypting Sensitive Police Application Data Across a Distributed Law Enforcement Network

When Italian Law required them to secure their data-at-rest, SIO started researching encryption and key management options for compliance. Ultimately, SafeNet ProtectFile's flexibility combined with its policy-based access controls, allowed SIO to implement the logical and physical data security they needed to be compliant while using multi-tenant environments.

The Business Need

SIO provides IT infrastructure services to several Italian public prosecutors' offices for the secure use and storage of sensitive audio and video recordings. Italian law (Lawful Interception and Localization Security Minimal Requirements) recently required them to also encrypt this data at rest. Since these offices hold highly sensitive information, SIO installs dedicated hardware (whose ownership it maintains) in each location; cloud solutions are not an option.

These hardware deployments typically comprise several file/application servers and one network attached storage drive (NAS) with 3 to 30 TBs of row data (audio and video). Public prosecutors use an application on this infrastructure that allows restricted access to recorded files. In addition, as these recordings are stored and archived, SIO must ensure that they remain secure from unauthorized access.

Challenge

- Apply encryption to data-at-rest
- Secure data using on-premises solutions only
- Must ensure data stays secured from unauthorized access as it is stored and archived

Solution

- SafeNet KeySecure
- SafeNet ProtectFile

Reward

- Ensured separation of duties
- Tracked user access to protected data and keys for security and compliance audits
- Preventing rogue root administrators from impersonating users to access protected data
- Ensures all secured, sensitive data will be rendered unreadable should data destruction be required

Solution

With such a compelling reason to act, they began scouting the market for a solution in the first half of 2016. Originally, they approached the problem from a purely storage hardware perspective, and were evaluating self-encrypting drives from Hitachi (SED) as a potential solution. SIO partnered with Disc S.p.A (a Dell EMC reseller) to identify and evaluate an array of solutions. Looking more closely at their requirements, they realized that using a file-system level encryption solution would provide better protection. At the file system-level, the prosecutor's offices could institute finely tailored policy-based access controls of their audio and video files to restrict access to specific files by specific users with all of this data residing on the same server. Additionally, using a file system-level approach over SEDs allowed for logical data protection as the file and application servers were up and running.

Understanding the advantages of a software based approach at the file system-level, and appreciating Gemalto's wide and flexible value proposition, in September 2016 SIO opted to try a proof of concept with Gemalto's SafeNet ProtectFile encryption solution.

By February 2017 SIO completed their technical evaluation. They were pleased with what Gemalto could provide and began working with Disc S.p.A to finalize the deployment. By working through Disc S.p.A. SIO and the public prosecutors' offices were able to work with people they already knew and trusted to evaluate the encryption they needed and design a solution that best fit their specific needs. Since the public prosecutors handle highly sensitive information, Disc S.p.A. sent professional services engineers locally to each site to deploy SafeNet ProtectFile encryption as well as SafeNet KeySecure for the on-going encryption key management needed.

About SIO S.p.A

Sio (http://www.siospa.it/eng/azienda.php) serves as technological partner to Italian Law Enforcement Agencies (LEAs). Ranging from lawful audio and data interception solutions to real audio and GPS monitoring tools, SIO's high precision solutions support LEA operators throughout all of phases of their investigations. Public Prosecutor's offices, and Institutions and LEAs depend on SIO for the development, production and installation of innovative solutions that provide global management and support for all stages of intelligence operations.

SIO
INTELLIGENCE SOLUTIONS

About DISC S.p.A.

DISC S.p.A. (http://www.disc.it) is an ICT company specialized in software development and system integration which has been operating in both domestic and international markets since 1984. It offers its customers products and solutions for: manufacturing, banking, retail, services, public administration and healthcare. Certified on all major IT vendor and system provider technologies, its 160 employees realize infrastructure projects in the areas of security, data center consolidation, business continuity, disaster recovery, virtualization, unified communication, outsourcing, cloud, networking; and custom development with .Net, Java, RPG and Cobol languages.

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About Gemalto's SafeNet Identity and Data Protection Solutions

Gemalto's portfolio of Identity and Data Protection solutions offers one of the most complete portfolios of enterprise security solutions in the world, enabling its customers to enjoy industry-leading protection of data, digital identities, payments and transactions – from the edge to the core. Gemalto's SafeNet Identity and Data Protection solutions enable enterprises across many verticals, including major financial institutions and governments, to take a data-centric approach to security by utilizing innovative encryption methods, best-in-class crypto management techniques, and strong authentication and identity management solutions to protect what matters, where it matters. Through these solutions, Gemalto helps organizations achieve compliance with stringent data privacy regulations and ensure that sensitive corporate assets, customer information, and digital transactions are safe from exposure and manipulation in order to protect customer trust in an increasingly digital world.

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