



CASE STUDY

Siemens Energy Automation Maximizes ROI for its SICAM Power Automation Systems Using Gemalto Sentinel LDK/EMS/HL

Energy automation, and substation automation in particular, is a highly competitive market with many global players. With increasing price pressures, higher product volumes, and increasing project requirements driving the need for more features, Siemens Energy Automation recognized the need to replace its legacy protection and licensing technology to more fully monetize and strengthen security for its SICAM product investments.

Background

A successful automation system is the foundation for a high level of functionality and flexibility. As part of Siemens Smart Grid, the company's substation automation solution, SICAM, consists of several components, including SICAM PAS (Power Automation System) and SICAM PQS (Power Quality System).

Siemens Energy Automation SICAM PAS is a software-based data concentrator used as an automation and Intelligent Electronic Device (IED) integration platform. SICAM PAS is used by electric utilities in substations, generation plants and at SCADA control centers. SICAM PAS is also used with power distribution systems at industrial facilities. SICAM PQS analyzes the contents of fault records then generates fault location reports, post-disturbance review reports, and power quality reports.

Challenges

Siemens Energy Automation faced a number of business challenges related to licensing and delivery of its SICAM products. Even though Siemens Energy Automation employed software protection and licensing technology for its energy automation products, the technology was 10 years old. Increasingly, clients and potential clients were requesting to license the product with either more or less features— so the company needed to be able to 'turn on' or 'turn off' product features based on customer need. The aging technology presented security risks and limited the company's ability to implement new licensing models.

Siemens Energy Automation also wanted to show an increased return on its development investments in the SICAM products. SICAM PAS is a high-value software offering ranging anywhere from 1.500 - 80.000 €, therefore securing the software and assuring revenue was mandatory.

Challenge

- > Continuous improvement of the protection technology to keep SICAM up to date
- > Improve licensing to implement new license models
- > Prevent security risks which limit return on invest
- > Licensing not integrated with back-office systems

Solution

- > Sentinel LDK with Sentinel EMS
- > Custom-Branded Sentinel HL Max Keys

Results

- > Quick implementation
- > Improved protection
- > Licensing flexibility for better response to market needs
- > Reduced operational costs & improved customer experience
- > Maximized ROI

"Every product should contribute to return on investment," stated Gerhard Fürst, PLM manager for SICAM PAS. "Software should not be installable free of charge. And that includes internal users whom should not be able to use the software randomly; it should not be freely available."

With two to three channels involved in each sale – from Siemens Energy Automation to the end industrial client or municipality – the company also sought to eliminate the possibility of unauthorized access and use of its software along the long value chain to the customer.

It was also important that the licensing and entitlement management system integrate with existing Siemens Energy Automation back-office systems for order entry, production, and logistics.

Solution

In an effort to better protect key components of its energy automation solutions from illegal use and theft, and to enable feature-based licensing of its SICAM products, Siemens Energy Automation chose to upgrade its legacy licensing and protection technology to Sentinel LDK/EMS with Sentinel HL MAX keys.

Gemalto Professional Services conducted a one-day consulting workshop where SICAM PAS and Sentinel LDK/EMS and API implementation were discussed. Armed with recommendations from the workshop, the implementation involved a one-time Siemens Energy Automation 'Do-It-Yourself' R&D and test effort in which the new secure licensing API was integrated with SICAM PAS and PQS for all Windows versions and SAP for order processing and logistics. The entire implementation was managed within a six month minor release cycle.

"Using Gemalto technology is an efficient way to protect our Siemens Energy Automation SICAM and will help us achieve our financial goals while securing the return on our development investments."

~Gerhard Fürst, PLM manager for SICAM PAS

Siemens Energy Automation deployed Sentinel LDK/EMS to manage the internal license production and entitlement management logistics for its SICAM products. To ensure maximum security and license enforcement on SICAM products when shipped to municipalities or industrial clients around the world, Siemens Energy Automation secures its systems with custom Siemens-branded Sentinel HL Max hardware keys.

Siemens Energy Automation considered but decided against using software-based license enforcement because PC disks, which would contain the encrypted license files, often fail – which meant that renewing a local license file would require a greater support effort and increased costs. Siemens Energy Automation chose Sentinel HL hardware keys instead because, in the event of a disk failure or PC configuration change, the license would not need to be renewed. Because the Sentinel HL key is portable and the encrypted license information resides on the dongle, which cannot be compromised, the end user can simply insert the dongle into the new hard disk or reconfigured PC to continue using the SICAM products according to their license terms.

Siemens Energy Automation also chose Sentinel for the ability to integrate its licensing with its SAP-based ordering system to automate internal logistics and take advantage of a future-proof solution.

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Results

Quick Implementation

When asked about the migration experience, Fürst responded, **"The technology migration was implemented without obstacles and was a relatively quick process which we managed to accomplish within a six month minor release cycle."**

Strong Security Secures Revenue

Gemalto Sentinel LDK/EMS/HL provides the highest level of security for preventing intellectual property theft and enforcing licensing terms to prevent unauthorized use and inadvertent overuse by licensed users.

Customized Keys for Increased Brand Recognition

Gemalto custom branded its Sentinel HL Max keys with the Siemens logo for increased brand recognition once in the field.

Reduced Operating Costs & Improved Customer Experience

Feature-based licensing made possible via the Sentinel LDK Web server, helps Siemens Energy Automation better respond to market needs. In addition, when SICAM products and features are updated, the Sentinel HL keys in the field can be updated remotely, which not only improves the customer experience, it reduces production and operating costs.

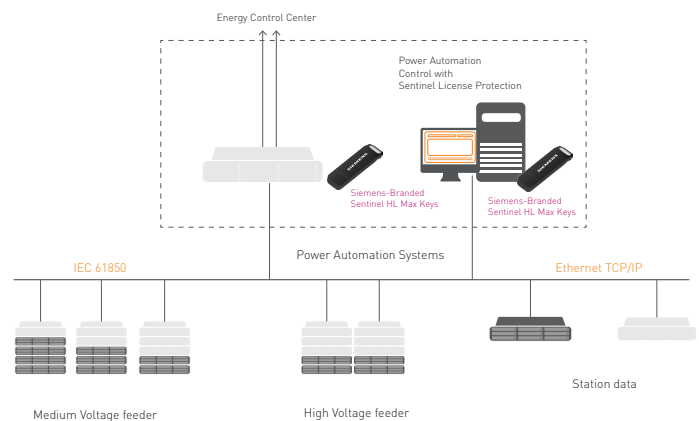
Sentinel Helps Secure ROI

"Using Gemalto technology is an efficient way to secure our Siemens Energy Automation SICAM and will help us achieve our financial goals while maximizing the return on our development investments," said Gerhard Fürst.

About Siemens Energy Automation

The Siemens Smart Grid Division offers power providers, network operators, industrial enterprises and cities an end-to-end portfolio with products and solutions to develop intelligent energy networks. Smart Grids enable a bidirectional flow of energy and information. They are required for the integration of more renewable energy sources in the network. In addition, power providers can run their plants more efficiently with data gained from Smart Grids. Software solutions that analyze data from Smart Grids will continuously gain importance.

For further information on SICAM products for substation automation visit: <http://www.siemens.com/sicam>



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