CPU Tech

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S O F T W A R E ®

Differentiating Its Security Hardware with Role- and Feature-Based Software Licensing and Entitlement Management

Customer Profile: As a leading provider of anti-tamper processor solutions for the military, government and commercial sectors, CPU Tech produces the Acalis® family of secure processors that protect software and systems from reverse engineering.

Challenge: Needed to reduce high manufacturing costs as well as address the customer's desire to license and pay for use of CPU Tech's desktop and embedded software based on usage of features/functions and specific roles. CPU Tech also needed a way to efficiently manage their licenses and product lifecycle, both in an offline and web-based environment.

Solution: CPU Tech implemented FlexNet Producer Suite for Intelligent Device Manufacturers from Flexera Software. CPU Tech's use of the FlexNet Producer Suite enables them to license several different "subscription licenses" all from the same secure hardware, as well as manage the licenses and entitlements over the life of the product.

Benefits: The FlexNet Producer Suite for Intelligent Device Manufacturers enabled CPU Tech to reduce manufacturing costs by making it possible to manufacture a single version of their hardware, and then use embedded software and licensing to offer different capabilities. In addition, to address customer requirements to offer more flexible licensing and pricing, CPU Tech now offers feature and role-based subscription licensing and pricing models, which has also enabled them to extend the customer's usable life of the CPU Tech secure hardware.

"Flexera Software's embedded software licensing and entitlement management solution enables CPU Tech to protect our intellectual property and allow the customer to operate in a classified/secure area without internet access. We needed a solution that enables a solid revenue model without expanding our manufacturing costs."

"With Flexera Software we can now easily upgrade and downgrade our customers without deploying additional hardware as well as offer them licensing and pricing models based on roles and features."

Ryan Kenny
CPU Tech

FLEXERA SOFTWARE™
FlexNet® Producer Suite
for Intelligent Device Manufacturers

CPU TECH®
Leading Solutions You Can Trust

With the recent surge in cyber security threats, it's no surprise that solutions like CPU Tech's "System-On-Chip" Acalis® family of secure processors and anti-tamper devices are getting a lot of attention. Especially in the military and government sectors, where it is critical to protect software and systems from reverse engineering.

CPU Tech was founded in 1989 with a vision of making compatible "System-On-Chip" technology economically practical. As time passed, the company faced pressure from customers to offer more flexible software licensing and pricing models. In addition, because the Acalis products were offered for the desktop as well as embedded software, CPU Tech needed an easy and efficient way to provide different levels of functionality, operations, and security.

Unique Military/Defense Requirements Drives Needs for Flexible Licensing, Pricing and Entitlement Management

In the military/defense technology community, one of CPU Tech's main segments, programs have extensive and complex government reviews and milestones. Therefore it is common for defense products and solutions to have a five to ten year (sometimes longer) lifecycle. During that time not all product capabilities are required during all phases. For example not everyone working in integration, test, or manufacturing needs to, nor should they be allowed to, understand sensitive design details. At other times in a product lifecycle some security settings are "locked down" for the remainder of the program. And lastly some programs are "compartmentalized", where engineers and users have different access rights. Because of these unique requirements, CPU Tech had a number of challenges they were looking to address, including:

- Feature-based and role-based licensing and pricing models
- Embedded-node-locked and floating licensing capability
- Both offline (for machines operating in a classified area) and web-based activation
- Simplify complex product lifecycle management
- Automate the activation process

Ryan Kenny, responsible for product marketing at CPU Tech explains, "With our Acalis Sentry Security Server solution we needed to offer our customers both feature-based and role-based functionality. Our solution can be operating in many different environments with different feature sets enabled or disabled, such as in development, manufacturing, security configuration, and security audit environments." He adds, "In each environment and use case, there are different people with different roles and security requirements operating the device.

And in each use case, there are different feature sets enabled and disabled based on security and operations needs. For instance, customers may alternate between 'call-back' registration and standalone licensing and activation, depending on where they are in their development cycle."

CPU Tech's Criteria for Selecting a Best-In-Class Software Licensing and Entitlement Management Solution

Early on CPU Tech determined that they needed to engage with a third-party software licensing and entitlement management vendor to address their needs. Recognizing what their core competencies were, they had no desire to develop their own licensing solution and were looking to partner with a best-in-class solution provider.
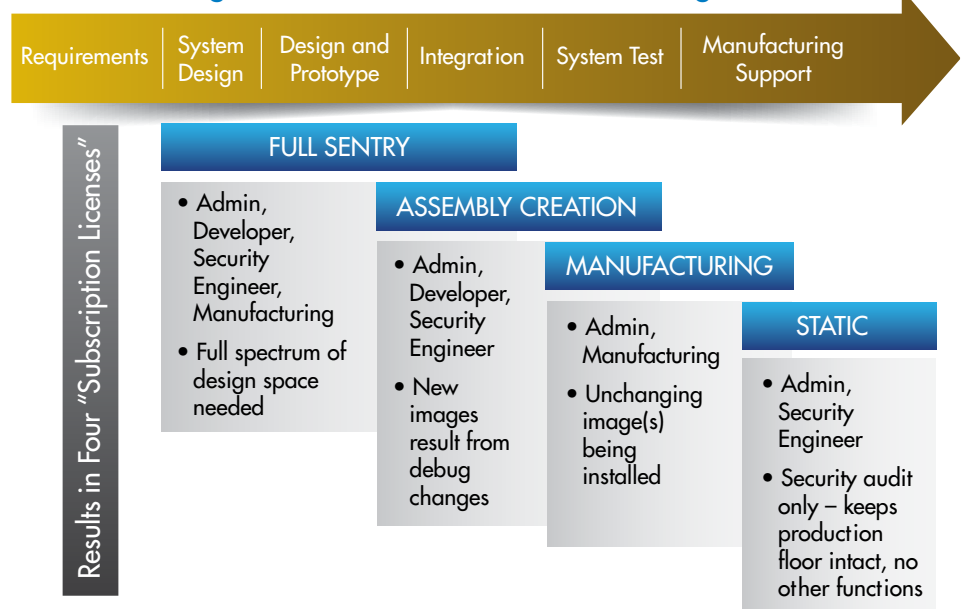
To ensure the solution and provider that they selected addressed all of their needs, CPU Tech created an exhaustive list of important criteria, including:

- Appropriate and adequate cryptographic encryption for license key protection and storage
- Small memory footprint
- Support for CPU Tech's processor architecture
- Support for embedded operating systems (OS) – needed to be OS independent, and easy to port
- Support for programming language
- Performance and reliability
- Easy to manage and track the license entitlement
- License activation automation
- Integration with other management systems, such as Salesforce
- Total cost of ownership

FlexNet Producer Suite for Intelligent Device Manufacturers Meets CPU Tech's Diverse Licensing and Entitlement Management Needs

CPU Tech chose the FlexNet Producer Suite for Intelligent Device Manufacturers from Flexera Software as their solution of choice. Kenny explains, "Flexera Software's embedded software licensing and entitlement management solution

Matching Roles/Modes to Customer Design Model

Requirements	System Design	Design and Prototype	Integration	System Test	Manufacturing Support

Results in Four "Subscription Licenses"

FULL SENTRY
- Admin, Developer, Security Engineer, Manufacturing
- Full spectrum of design space needed

ASSEMBLY CREATION
- Admin, Developer, Security Engineer
- New images result from debug changes

MANUFACTURING
- Admin, Manufacturing
- Unchanging image(s) being installed

STATIC
- Admin, Security Engineer
- Security audit only – keeps production floor intact, no other functions

enables CPU Tech to protect our intellectual property and allow the customer to operate in a classified/secure area without internet access. We needed a solution that enables a solid revenue model without expanding our manufacturing costs." Kenny adds. "With Flexera Software we can now easily upgrade and downgrade our customers without deploying additional hardware as well as offer them licensing and pricing models based on roles and features."

Flexera Software Solutions Add Value to Acalis Sentry Product Line

Since embedding Flexera Software's licensing technology and implementing their entitlement management solution, CPU Tech has seen a significant reduction in manufacturing costs and ease in managing the product lifecycle. The Flexera Software entitlement management solution enables them to offer a single version of their hardware and simply control the hardware capabilities and features based on roles and features. In addition, the licensing adds a valuable security layer in user activation, making sure only those entitled are able to activate the product.

"Not only has Flexera Software's embedded licensing technology enabled us to protect CPU Tech and customer intellectual property, with their entitlement management solution we have seen a clear savings in the operations area by being able to easily upgrade/downgrade capabilities on the hardware," says Kenny. "We have also been able to bring products to market faster and tailor subscription licenses to meet customers' unique requirements, helping us to better serve our customers."

In Summary

Kenny summarizes, "Flexible software licensing and entitlement management allows for cost reduction and revenue models that matches customer needs and processes. In the past, much of what were security "rules" to be enforced through audit are now enforced by licensing and entitlement management."

About Flexera Software

Flexera Software is the leading provider of strategic solutions for Application Usage Management; solutions delivering continuous compliance, optimized usage and maximized value to application producers and their customers. Flexera Software is trusted by more than 80,000 customers that depend on our comprehensive solutions- from installation and licensing, entitlement and compliance management to application readiness and software license optimization - to strategically manage application usage and achieve breakthrough results realized only through the systems-level approach we provide. For more information, please go to: www.flexerasoftware.com

Features/Subscriptions	Full	Assembly Creation	Manufacturing	Static
Product Activation	✓	✓	✓	✓
Configuration (locking/unlocking network)	✓	✓	✓	✓
Licensing (activation, update)	✓	✓	✓	✓
Field Upgrade	✓	✓	✓	✓
Tamper and Activity Log (storing, retrieving)	✓	✓	✓	✓
Device Sanitization	✓	✓	✓	✓
Access Configuration (user group, users)	✓	✗	✗	✗
Security Configuration (firewall, key, event log)	✓	✗	✗	✗
Assembly Creation	✓	✓		
Assembly Upgrade	✓	✓		
Target Activity Log Retrieval	✓	✓	✓	✓
Manufacturing Process	✓		✓	✗

Sample Matrix of Features to "Subscription Licenses" in Acalis Sentry

Next Step:
Visit FlexNet Producer Suite for Intelligent Device Manufacturers to learn more.

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