



SENTINEL
SOFTWARE
MONETIZATION
SOLUTIONS

Sentinel[®]SL

PRODUCT BRIEF



Sentinel LDK Overview

Sentinel License Development Kit (LDK) is a comprehensive software monetization solution that pairs the award-winning security, licensing flexibility, and ease-of-use features of the Sentinel License Enforcement Solutions with the licensing operations management features of Sentinel Entitlement Management System (EMS) in one out-of-the-box solution.

Sentinel LDK, SafeNet's integrated software licensing and security solution, enables software publishers to grow their business by successfully protecting, packaging, tracking, and managing their product portfolios. Through its role-based tools, and by combining hardware- and software-based protection into one solution, Sentinel LDK grants decision-makers the flexibility to choose the level of protection and licensing that best fits their business needs today, tomorrow, and beyond.

Benefits:

- **Maximum Product Packaging Flexibility** – Deliver the right offering with the right billing model for every customer, every time with the industry's widest variety of sophisticated licensing models and the easy-to-use catalog management feature of Sentinel LDK.
- **Reduced Time to Market** – Enjoy all of the time-to-market and customer-experience benefits of distributing our software electronically without having to worry about unauthorized use and distribution of your product.
- **Award-winning Copy Protection** – Maximize your revenue by ensuring that all use of your offering is legitimate.
- **End-User Empowerment & Experience Enhancement** – Improve end-user satisfaction and reduce many support costs by empowering end users to manage certain aspects of the license lifecycle without having to contact you directly.

Sentinel SL – Software-based Protection Keys

Sentinel LDK employs Sentinel SL for software-based protection and licensing. Based on the Sentinel HL hardware-based protection technology, Sentinel SL provides the industry's strongest software-based security protection. Sentinel SL is a virtual protection key that is installed and stored on the end-user's machine(s)—protecting against unauthorized use and illegal re-distribution by allowing access to execution of the software only when a valid key is recognized by the protected application. Sentinel SL allows software publishers to quickly deploy their products and get users up and running quickly and easily without having to wait for a physical hardware-based key.

With SafeNet, customers can leverage their existing implementations to offer software-based trial licenses that instantly deliver hardware protected software and trials electronically. Using a software-based key (with a grace period) to get started, end users can download and use protected software even before they receive their hardware-based protection key.










Software Protection with Sentinel SL

The ability to protect one's software from unauthorized use and distribution is critical to any software publisher's ability to monetize their software. The strong copy protection of Sentinel SL guarantees that software publishers get paid for every software copy. As the most secure software protection and licensing solution on the market, Sentinel SL employs a wide range of standard public cryptographic algorithms, such as AES-128 and RSA-2048, ensuring a robust link between the application and the key itself. As part of the overall protection scheme, Sentinel SL keys provide powerful resistance to “man-in-the-middle” and brute force attacks by establishing a secure communication channel between the software-based key and the protected application.

The ability to protect the software application itself is just as important as being able to control and monitor usage. In addition to preventing unauthorized use and distribution of software, an ISV needs to be certain that the code of the application is safe from theft, tampering, and reverse engineering. Strong intellectual property (IP) protection allows software publishers to prevent industrial espionage and actively maintain their competitive advantage. Beyond the powerful encryption algorithms found between the protected application and the Sentinel SL protection key, all Sentinel software protection and licensing systems offer additional means of wrapping and protecting your application executables and DLLs in a virtually impenetrable shield. The Sentinel Envelope wraps your protected application to provide robust IP protection against reverse engineering through file encryption, code obfuscation, and system-level anti-debugging. The Sentinel Envelope creates multiple random layers of protection for each file, making it extremely complex and time consuming for hackers to remove while ensuring that software code is safe from exposure.

Secure and Flexible Licensing with Sentinel SL

By employing SafeNet software license enforcement solutions, you will gain access to the industry's widest variety of flexible software licensing models. The list of available licensing models is always growing. In today's highly competitive software landscape, an ISV's ability to differentiate themselves using new and innovative licensing models can make more of a difference between business won and business lost than some product features can. Focused on quick time to market and licensing flexibility, Sentinel SL supports the following license models:

	Perpetual – Once purchased the software can be used indefinitely.
	Feature-Based – Enable or disable product features based on the user's needs and budget.
	Pay-Per-Use – Employ counters to charge end users for the number of executions or units they consume.
	Network Concurrency – Enable multiple sessions in a network environment.
	Time-Based/Subscription – Enable subscription or rental of software for a specific time period. The end user pays a monthly subscription fee that covers the initial software package plus periodical updates. Period can be enforced either by expiration date or time from first use.
	Custom Licenses – Flexibility to create complex licenses models to best suit business needs using counters, secure memory and unique ID.
	Trialware (try-before-you-buy) – A software-based solution for creating, protecting, and distributing secure DEMO versions of your software products.
	Commuter – A license that can be temporarily detached from a network pool center to enable off-line use of your protected software.
	VLK (Volume License Key) – A license model that enables you to sell a pool of licenses to an organization, without requiring product activation on every machine, while still enforcing the maximum number of installed workstations.

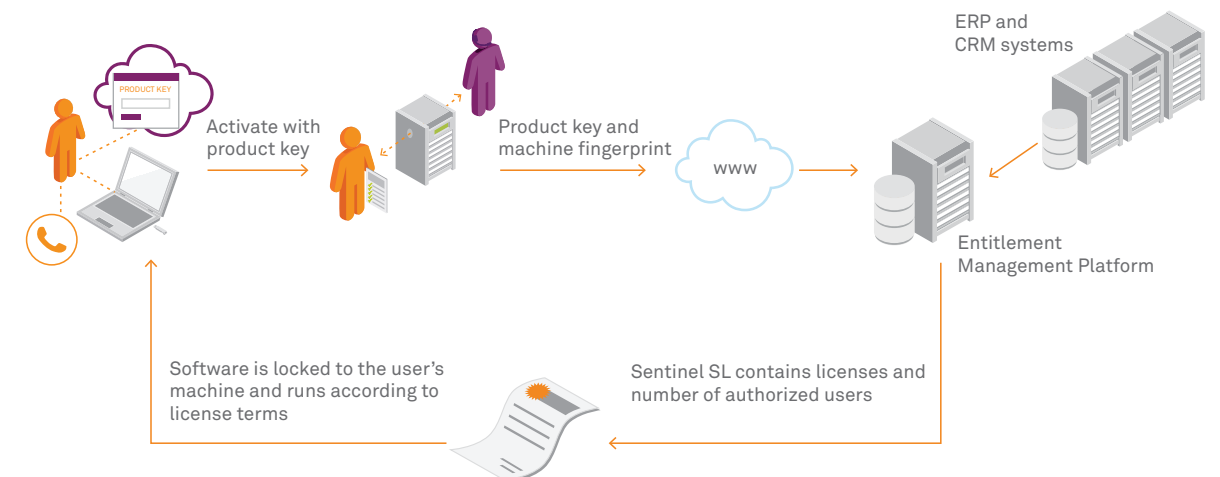
No Fuss Installation

Sentinel LDK offers a hassle-free approach to software deployment using a User-mode, software-based license key. This mechanism allows software vendors to deploy their protected application without the need of installing additional SafeNet components on the target machines which may sometimes require administrative rights. This unique approach allows for unmanned installations to take place irrespective of the end-user's administrative rights on the target machine, drastically reducing any delays or additional overhead as they relate to mass deployment.

Product Activation with Sentinel SL

Sentinel LDK features product activation that allows software publishers to deploy their software either over the web or through traditional physically shipped products. In either case, the software must be activated prior to initial use. Activation can be accomplished through a self-service end-user web portal, automated via a secure web transaction, or manually through an email exchange. Upon activation, the end user may use the software in a fully functional or restricted mode with an optional grace period of up to 90 days.

For this process to take place, the end user electronically transmits a unique product key supplied by the software vendor to a remote server. A Sentinel SL protection key, containing the license terms, is sent back and installed on the end-users' machine to activate the software. All product activations are secured with an SSL-based (Secure Socket Layer) communication channel between the end-user machine and the activation server. All files are encrypted and digitally-signed for secure transmission while preventing tampering.



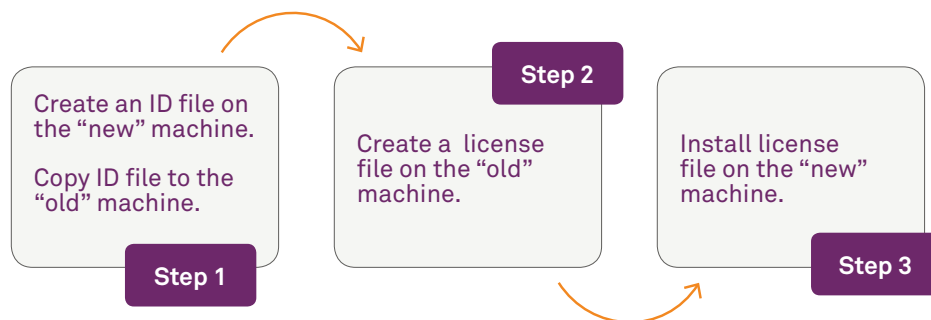
The long-term benefits of this solution are:

- **End-User Control**—Users can re-host an existing license without contacting the ISV (both before and after the license transfer)
- **License Flexibility**—Licenses can be transferred without contacting the ISV, providing more dynamic end-user support without the need to move/transfer an existing license.
- **Lower ISV Costs**—Allows the end user to move the license without requiring any interaction/intervention on behalf of the ISV.

3-Step License Re-host

Sentinel LDK introduces a unique feature providing software vendors with a simple mechanism (enabled or disabled on a per-user basis) allowing end users, without contacting the ISV, to transfer an SL license from one machine to another in 3 easy steps.

This unique offline implementation empowers the end customers allowing them to move an existing license on their own, offline, without any involvement by the ISV – greatly reducing support costs of the licensing system (to the ISV), while providing more control and an enhanced end-user experience.



Control Software in Virtual Environments

Sentinel SL provides customers with the necessary tools to confidently license their application in virtualized environments. Every customer is unique, which is why we provide multiple protection schemes for ISV's selling their products in virtualized environments, each with a different level of flexibility.

- **Virtual Machine Detection & Deny** – Enables ISVs to detect the presence of a virtual machine (VM), and simply allow or disallow license authorization.
- **Virtual Machine Binding** – This feature enables ISVs to lock a license to several unique traits of a VM and to prevent replication or “cloning” of the software application, enabling secure licensing in a virtualized environment.

SafeNet Sentinel Software Monetization Solutions

SafeNet has more than 25 years of experience in delivering innovative and reliable software licensing and entitlement management solutions to software publishers, technology vendors, and cloud service providers worldwide.

Easy to integrate and use, innovative, and feature focused, the company's family of Sentinel Software Monetization Solutions are designed to meet the unique license enablement, enforcement, and management requirements of any organization, regardless of size, technical requirements, or organizational structure. Only with SafeNet are clients able to address each and every aspect of the software monetization lifecycle—from copy and intellectual property protection to product catalog management and ongoing end-user experience improvement.

With a proven history of adapting to new requirements and introducing new technologies to address evolving market conditions, SafeNet's more than 25,000 customers around the globe know that by choosing Sentinel they choose the freedom to evolve how they do business today, tomorrow, and beyond.

To download a FREE Sentinel LDK Demo Kit, visit:

<http://www.safenet-inc.com/sentinel-dk-download/>

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