

Sentinel Fit

The smallest, commercially-available secure licensing solution in the market



Sentinel Fit delivers award-winning software protection features combined with sophisticated, webbased entitlement management capabilities. Sentinel Fit is ideal for embedded systems; supporting virtually all boards and microcontrollers and is free from CPU and operating system constraints.

Sentinel Fit enables embedded device manufacturers to deploy a feature-rich licensing solution with flexible packaging, to reduce cost of hardware variations, and capture recurring revenue via automatic updates and services for in-the-field devices.

Ultra-Low Footprint

Integrate the smallest, commercially available secure licensing footprint into your products:

- **Sentinel Fit Runtime:** Designed for use in highly constrained environments (RAM, CPU power, storage).
- **Resource Consumption:** Consumes a low portion of the available free resources on the device.
- **Footprint Size:** Smallest commercially available licensing RSA Footprint 34KB Flash, 13KB RAM.
AES Footprint 6.5KB Flash, 1.5KB RAM.

High Portability

Use a feature-rich SDK suitable for development on all device platforms.

- **Source Code:** Access to Sentinel Fit runtime source code
- **Development Platforms:** Supports widest range of environments and platforms, across OS variants, CPU architectures, and board types.
- **Flexible Compilation:** Compile the source code to meet environmental needs.

Modular Architecture

Create an optimal balance between footprint and device functionality.

- **Customization:** Tailor the runtime to meet hardware constraints, and reduce footprint.
- **Pluggable Cryptography:** Reduce footprint by leveraging existing crypto license signature: RSA 2048 or AES 128.
- **Do It Yourself:** Independently customizable to match specific footprint requirements.

Feature-Based Licensing

Customize your product with a feature-based licensing solution.

- **Product Functionality:** Vendors can use licensing to grant (or deny) access to different software features
- **Licensing Models:** Independent license model can be connected to any feature; including perpetual or timebased (expiry date) licensing models
- **License Per Feature:** Supports up to 65K features/functions

Tamperproof Licenses

Safeguard the security of licenses throughout the entire life cycle from creation to delivery.

- **License Enforcement:** Licenses define the software usage terms; RSA asymmetrically signed; AES symmetrically signed.
- **License Protection:** Licenses are generated by the vendor only and are protected from illegal manipulation.
- **Secure License Delivery:** Licenses are secured in transport.

Fingerprint Node Locking

Ensure users do not copy licenses from one device to another.

- **Fingerprint Protection:** Vendor creates a fingerprint function based on unique device attributes.
- **Vendor Control:** Vendors get full control to enable customization of license locking criteria.
- **Illegal Duplication:** Fingerprints are incorporated into the licenses to prevent illegal duplication.

License Activation & Updates

Activate and update licenses throughout the entire product lifecycle.

- **License Activation:** Supports activation at production, during fulfillment, and field activation.
- **License Updates:** Send new licenses or updates to devices in the field.
- **License Control:** Supports device personalization per channel or end user.
- **Production Control:** Enable to control low-trust contract manufacturers and still allow them to produce offline.

Extended EMS Functionality

Extend the functionality of Sentinel Fit using Sentinel EMS.

- **Use Customer-Centric Data:** Get analytic data to understand use cases, build better products and adapt to evolving market needs.
- **Controlled Manufacturing Process:** Ensure that only entitled devices are activated and prevent cloning and grey-market
- **Control Sales Distribution:** Authorize and track what packages your partners, distributors, and sales channel are authorized to sell.

Features & Benefits

- **Ultra-Low Footprint:** Integrate the smallest, commercially available secure licensing footprint into your products.
- **High Portability:** Use a feature-rich SDK suitable for development on all device platforms.
- **Modular Architecture:** Create an optimal balance between footprint and device functionality.
- **License Models:** License independent features with perpetual and time limited licenses
- **Tamper-Proof Licenses:** Safeguard the security of licenses from throughout the entire life cycle from creation to delivery.
- **Fingerprint Node Locking:** Ensure users do not copy licenses from one device to another.
- **License Activation & Updates:** Activate and update licenses throughout the entire product lifecycle. Leverage full entitlement management capabilities with out of the box integration with Sentinel EMS.

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.