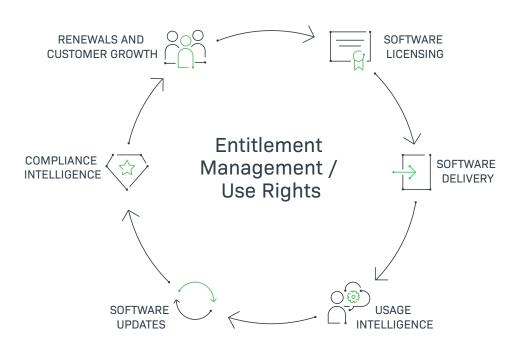


#### MONETIZE MORE EFFECTIVELY

# FlexNet Licensing

Launch new business models. Protect your IP. Reduce the risk of revenue loss.

FlexNet Licensing offers flexible implementations to help you achieve all of these things. It's part of our complete <u>Software Monetization Platform</u>, providing application security and protection at every stage of the software lifecycle.



#### **KEY BENEFITS:**

- Grow revenue when you support the full software monetization spectrum—from strict enforcement to usage-based trust-but-verify
- Protect and monetize all your IP cloud, SaaS, virtualized, on-premises and embedded without negatively impacting usability
- Change pricing and licensing terms quickly to match market demand
- Improve the customer experience when you make it easy for customers to activate and manage features

- Implement All Monetization Models, on All Platforms
   FlexNet Licensing supports the widest range of monetization models in the industry, including: node locked, floating,
  - named-user, subscription, capacity, metered, pay-for-use, pay-for-overage, time-limited and many more. It works across all platforms, standalone, as an SDK built into your application technology, or as a flexible web services framework.
- Define Compliance Models
  - It enables you to easily configure your compliance model. You can implement anything from strict enforcement to trust-but-verify programs.
- Offer Flexible Product Configurations: Packaging, Bundling and Feature Monetization
  - FlexNet Licensing makes it very easy to define features, packages, bundles and suites. In fact, you can:

- React to customer's needs and create different product options
- Switch features on and off electronically
- Change pricing and licensing options quickly to match market demand
- Differentiate your products through efficient licensing technology
- Enable Usage-based Monetization or Compliance Models
  You gain insight on what products and features customers
  are using and to what extent. Armed with this valuable insight,
  you can implement usage-based monetization models, detect
  overuse, manage compliance and gather actual user data to
  guide future product development.

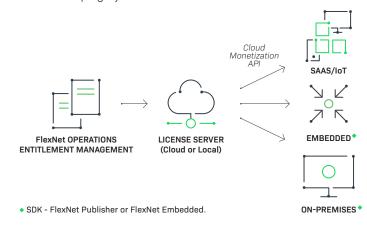
# **Protect Your Applications**

FlexNet Licensing protects your products against revenue loss by ensuring only licensed and credentialed users can access your products. You can implement and enforce your software licensing terms without impacting usability and customer satisfaction.

- Defend Against Hacking and Piracy
  - FlexNet Licensing provides multiple layers of application protection. You can add tamper-resistance to your code, install safeguards against unauthorized access to your software, use secure activation mechanisms, detect hacking and overuse and react accordingly.
- Protect and Monetize in Cloud and Virtual Environments
  Revenera has collaborated with cloud and virtualization
  platform providers to provide the richest set of licensing
  capabilities in these environments. FlexNet Licensing
  detects virtual machine cloning and will react as defined
  in your compliance model (deny or report).

#### Enable Activation for Software and Devices

With activation processes, you can not only protect your applications but also establish a direct connection to your product's users. Device manufacturers in the Internet of Things make a direct connection to their end users and can ensure that only original devices can be activated, which stops grey market abuse.



FlexNet Licensing Technologies			
	FlexNet Publisher	FlexNet Embedded	Cloud Monetization API
WHAT	Easy to deploy complete licensing solution	Small footprint SDK	Easy to integrate, hardware independent API
WHERE	Desktop and server	IoT/Embedded Desktop and server	SaaS IoT/Embedded
ном	Standalone or with FlexNet Operations	With FlexNet Operations	With FlexNet Operations and Cloud Monetization Module

## FlexNet Embedded

FlexNet Embedded, working in conjunction with FlexNet Operations, is a small footprint SDK that works with software applications in all implementations – on-premises, cloud, virtualized or mobile – as well as with embedded software on devices

#### **FEATURES**

#### **FlexNet Embedded License Server**

By empowering your customers' enterprise administrators to centralize and efficiently manage licenses, you can reduce costs and simplify license management tasks. The self-packaged, out-of-the-box, Java-based local license server requires minimal setup and provides administrator tools. The administrator can manage both enforcement and usage-based licenses across the enterprise.

Your customers can leverage administrator tools to save time and reduce manual steps by automating complex licensing tasks. A comprehensive REST API allows you to create custom interfaces suitable to your deployment models. You can also enable end customers to monitor, administer and manage software license servers through a web-based administrator console.

#### **FlexNet Cloud Licensing Service**

You can further simplify licensing operations by eliminating local license servers. Enable software license enforcement and management for both on-premises and cloud-based applications with Cloud Licensing Service hosted by Revenera.

#### **Efficient In-Product and Volume License Activation Support**

Users can activate license servers in a single step and securely return and transfer licenses. This reduces instances of 'casual copying', the practice of sharing software with multiple users in violation of a license agreement. There is also support for secure online and offline in-product license activation as well as the ability to streamline device provisioning in manufacturing environments.

## **Software Tampering Protection**

You can minimize piracy risk, maximize revenue and strengthen IP (intellectual property) protection with additional security layers by utilizing Revenera's patent-pending Tamper Resistant Application. This functionality provides protection against hacking and software piracy through sophisticated detection and identification of unauthorized use. Apple OS X, Microsoft Windows and Linux are supported.

- Mitigate the risk of reverse engineering by providing maximum protection against static analysis through code obfuscation that controls the flow of software and application data that may contain sensitive information.
- Ensure application integrity and block tampering through innovative techniques that detect modification of the application in memory and on disk and provide an option to create "call-home" notification alerts.
- Establish secure barriers against debuggers and application signature spoofing to counteract reverse engineering attempts.

#### **Virtualization Support**

Enterprise customers will stay in compliance when cloning or copying virtual machines across datacenters with detect-and-report back ("call home") capabilities. Producers can feel confident that they are being paid for the use of their intellectual property.

- Detect accidental software compliance issues caused by the use of virtual machines. Supported hypervisors include: VMware ESXi, Microsoft Hyper-V and Citrix XenServer.
   Producers can set policies for specific hypervisors.
- Capture and send usage data to the back-office entitlement management server to ensure your customer stays in compliance (recommended for connected environments).

#### **Trusted Storage**

Trusted Storage provides a secure datastore to protect licensing information at rest on a device. Many license models, including node locked, subscription, time-limited and consumptive, rely on accurate data being stored on-device. Flex-enabled applications can leverage trusted storage to protect this data. The FlexNet Embedded Local License Server utilizes Trusted Storage to protect the entitlements activated for it to serve.

#### **Failover Support**

Users can stay up and running with standby license servers in the event of a primary server failure. FlexNet Embedded provides automatic or manual server failover support (main and backup servers).

#### **Usage Capture**

To support the movement toward usage-based licensing models and enterprises' desire to pay for only what they use, Usage Capture collects usage data in both connected and disconnected (not able to report usage to back-office) environments. You have the ability to capture usage events from cloud, SaaS, and onpremises applications and send usage data to FlexNet Operations (entitlement management system) to enable usage and consumption-based models. Support is included for C/C++, .NET and Java programming languages.

#### **Broad Platform Support**

FlexNet Embedded supports a wide range of embedded and mobile operating systems including Android, Apple OS X, VxWorks, Embedded Linux on ARM, MIPS and PPC, Microsoft Windows, Microsoft Windows Server, and Windows Embedded (CE). It also supports proprietary operating systems requiring a small footprint and extreme flexibility to fine tune to exact requirements for target embedded markets. There is a common licensing interface for every major platform including Linux/Unix, Windows, Apple, and platform-independent Java, with support for 32-bit and 64-bit versions of most operating systems.

#### **Faster Development Cycles with XT SDK**

XT is an integrated and complete SDK optimized for use on Windows, Linux and Apple OS X. It includes a pre-built hardware abstraction layer (HAL) implementation as well as built-in networking API support for Java, .NET and C/C++. An offline license activation feature with keyboard access allows secure activation of an application in a restricted computing environment.

Proprietary or other specialized implementations can also leverage the capabilities of FlexNet Operations by connecting through the programming language-agnostic FlexNet Cloud Monetization API.

## **Cloud Monetization API**

Revenera's API approach enables licensing transactions where the use of an SDK is not the preferred implementation.

- Small-footprint IoT devices that can't accommodate an SDK and already use JSON/REST for other functions
- Security requirements that restrict the use of third-party software on a device
- SaaS implementations where the underlying hardware is trusted and on-device security is not required
- Quick-deployment implementations prior to migrating to FlexNet Embedded SDKs with trusted storage
- Situations requiring control on cryptographic libraries for regulatory reasons, such as FIPS compliance.

For these implementations the Cloud Monetization API provides a standard web services framework to connect your application to FlexNet Operations.

#### **FEATURES**

- Universal JSON/REST interface
- Programming language and platform agnostic
- Full range of FlexNet Embedded license models
- Support for FlexNet Embedded features including Preview Request, Feature Selector, Vendor String and Grace Period
- Simple interface for rapid deployment
- RFC compliant message authentication mechanism secures license data
- License all clients from a common pool of licenses
- License and entitlement setup in FlexNet Operations is identical for CMAPI and FlexNet Embedded SDK clients

## FlexNet Publisher

FlexNet Publisher is the de facto standard for certificate-based software licensing, providing thousands of software suppliers a simple approach to license and protect their applications. It supports a variety of monetization models, captures usage, offers advanced tamper-resistance protection and provides high availability support. FlexNet Publisher can operate as a standalone solution or in conjunction with FlexNet Operations.

#### **FEATURES**

### **Trusted Storage**

FlexNet Publisher uses incremental licensing in trusted storage, where license counts from different sources, often fulfilled at different times, are added together. Licenses can be reinstalled from your back office in the event trusted storage is lost.

#### **Virtualization Support**

Enterprise customers will stay in compliance when cloning or copying virtual machines across datacenters with detect-and-report back ("call home") capabilities. Producers can feel confident that they are being paid for the use of their intellectual property.

- Detect accidental software compliance issues caused by the use of virtual machines. Supported hypervisors include: VMware ESXi, Microsoft Hyper-V and Citrix XenServer.
   Producers can set policies for specific hypervisors.
- Capture and send usage data to the back-office entitlement management server to ensure your customer stays in compliance (recommended for connected environments).

#### **Software Protection**

FNP helps protect your application from tampering. It uses Secure Data Types to prevent normal operations if there is evidence the application has been modified. The addition of Anti-Debugger Technology makes dynamic analysis of the software more difficult.

#### **Platform & Programming Language Support**

Major platforms including Linux/Unix, Windows, Apple, and Java Standard Edition are supported. Additionally, support is provided for both 32-bit and 64-bit versions of most operating systems. FlexNet Publisher includes software licensing support for popular development programming languages such as C/C++ and Java.

#### **High Availability**

FNP supports a 3-server redundancy model for its license servers, allowing quick failover from primary to secondary in the event of a server failure.

# FlexNet ID Dongle

Today's state-of-the-art software-based licensing is the choice for most suppliers. It offers more flexibility than any hardware-based approach. However, dongles are still a solution for some use cases, providing software protection by limiting or locking software access to your system. The FlexNet ID dongle works in conjunction with FlexNet Licensing (FlexNet Embedded or FlexNet Publisher) to enhance security as a form of hostid. The dongle is a serialized hardware key that attaches to a parallel or USB port and is automatically supported as a valid hostid by any FlexNet Licensing-enabled application.

## **NEXT STEPS**

Visit us to learn more about Software Monetization.

LEARN MORE >

Revenera provides the enabling technology to take products to market fast, unlock the value of your IP and accelerate revenue growth—from the edge to the cloud. **www.revenera.com**