Best Practices for Selecting and Implementing Software License Management

OVERVIEW

Traditionally, electronic software licensing solutions protected intellectual property against over-usage – intentional or unintentional – by providing the tools necessary to manage license compliance. Today, licensing flexibility is a key competitive differentiator for application vendors, as customers demand more value from their software investments.

Software license management solutions allow application developers to price and package products the way customers want to buy. This expands revenue opportunities within existing accounts and enables software publishers to reach new markets. Additionally, license management solutions empower application developers to reduce the operational and development costs associated with implementing and managing licenses throughout their lifecycle. By supporting flexible licensing models, dynamic product packaging, and electronic license distribution, license management products can improve software ordering and delivery processes.

Efficient license management is one of the fastest ways to increase revenue growth for a product line. To fully realize the benefits gained from implementing a license management solution, careful consideration must be given to the planning and design, fulfillment, and use and administration phases of the license lifecycle. This paper outlines the best practices for successfully selecting and implementing a license management solution.

LICENSE LIFECYCLE MANAGEMENT

A license management solution serves as a tool to help software publishers manage the entire license lifecycle from inception through to renewal. The license lifecycle is made up of three stages and the decisions made in each stage can impact the complete lifecycle.

LIFECYCLE PHASES:
1. Planning and Design
Decide which licensing models and strategies best suit the product and market requirements.
2. Fulfillment
Integrate licensing with back-end systems and other fulfillment processes to fully automate licensing. Create the administration tools necessary to manage and track license usage.
3. Use and Administration
Enable self-service renewal and upgrade capabilities to maximize revenues.

By following our best practice guidelines, software publishers can avoid costly and undesirable results when implementing a license management solution and plan for the future success of product lines.

PLANNING AND DESIGN

For most software developers the benefits of electronic licensing are well understood. Beyond the protection of intellectual property, there are several license models that can be used to increase revenue opportunities. Electronic licenses help software publisher's price and package their products according to market needs and customer requirements. The same software targeted at different markets can benefit from offering a variety of license models.

During the integration phase, it is critical to spend time in planning and design of a license management scheme. The application of license management to a software product is not a complex process yet this simplicity can sometimes lead to a hasty implementation, generating undesirable results. Following are some of the factors that need to be considered when planning and designing license management into a software product.

License Models

A license management system enables choices beyond simply allowing or denying an application to run. The license manager will provide information on usage which can be used to make decisions such as whether continued use should be allowed, denied or restricted.

While some license models are relatively well known, such as time limited demo licenses, new innovative licensing models can also prove to be beneficial. Licensing models can be leveraged to help generate new markets and revenue opportunities. Applying multiple license types to the same software package, such as leasing or rental license models, may open new markets to increase revenue. User registration can be enforced to allow a publisher to perform market trend analysis. Functionality within an application can be enabled and disabled by using licenses as a means of control.

License	Model Description
Evaluation	Supports trial evaluations
Commuter	Allows users to check out a license and gain application access while out of the office
Feature-Based	Allows for licensing based on features or bundles of features
Leasing/Rental	Supports leased or rented licensing models
Pay-Per-Use	Allows billing based on product usage
Site License	Authorizes application use based on a specific subnet

Proper planning of the license models available is important in order to realize all the benefits of an electronic license scheme. A license management solution should fit the needs of the publisher rather than forcing the publisher to alter the business needs to suit the solution.

Levels of Security

Security measures comprise a broad spectrum of options with unlocked licenses at one end and fully integrated hardware solutions at the other. A license manager should provide varying degrees of security to cater to the needs of the software publisher. The level and type of security can then be selected according to the needs of the product and the market being served.

When competing in markets with higher piracy rates, a fully integrated hardware based solution provides greater security. To further bolster security, supplementary methods may also be employed. For example, code obfuscating and wrapping/shelling software can be used to encrypt licensed software to add an even higher layer of security.

In markets where piracy is not a significant concern, product usability may take precedence over security. Lower level security can be implemented to support licensing transparency for the end user. Licensing schemes, such as unlocked licenses, can be used in these cases to minimize the user's interaction with and awareness of electronic licensing.

Choosing the appropriate level of security requires the assessment of market conditions, product requirements and user needs. Security should maintain a balance between the protections afforded versus ease-of-use.

Sustainability
One goal when implementing an electronic licensing scheme is to increase revenue opportunities. Protection of intellectual property by preventing fraudulent use, and worst yet blatant theft, is only one means to achieve this goal. By properly planning, a publisher can maximize the value derived from an electronic licensing scheme.

As sales and marketing needs change, electronic licensing should be advantageous, rather than a burden. Our experience has shown that a well planned license management scheme is one that is also designed for future maintenance. To control costs, it is important to design a license management system that is not reliant on expert knowledge limited to a few implementers.

As the way software is sold and distributed changes, electronic licensing can assist a publisher in taking advantage of new options. Electronic licensing can facilitate online license distribution as well as greatly benefiting publishers that fulfill through a channel. Complete software and hardware modules can be distributed and the purchase of functionality enabled by electronic licenses, thereby reducing costs.

FULFILLMENT
Integrating licensing capabilities into a product is only the first hurdle faced when striving to develop a fully operational license management process. The fulfillment phase is often the most underestimated and yet possibly the most critical component of a licensing lifecycle management strategy. An electronic license impacts every aspect of an enterprise. A successful implementation benefits from collaboration between all affected departments.

ERP

CRM
Database

Software Publisher

Sentinel License
Generation
Service

License
Template
Store
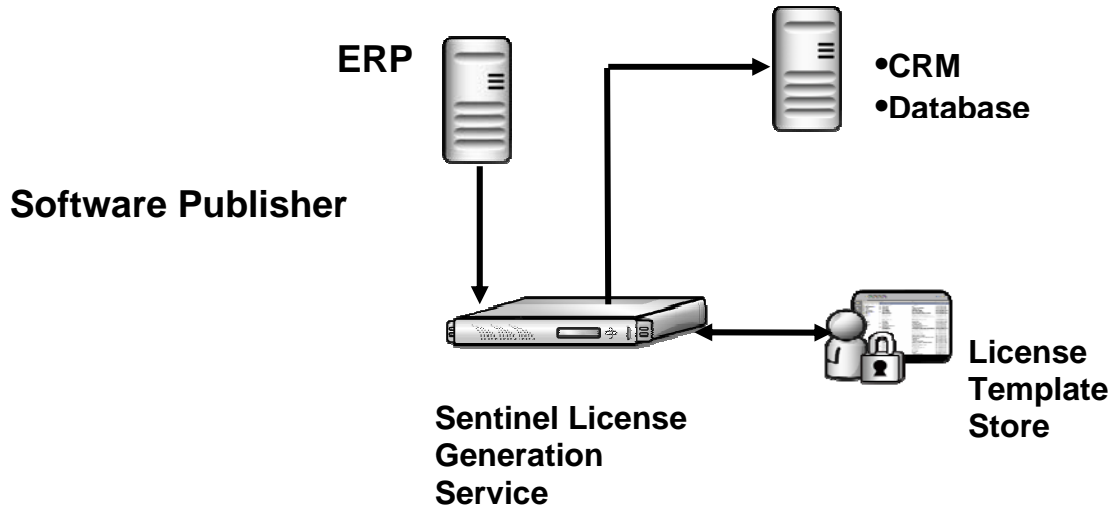
Integration into operations
The license needs to follow the same lifecycle as the software with which it is associated. Systems must be updated to reflect this relationship. This may require updates to ERP and CRM systems as well as establishing the license generation system. Streamlining and automating the license fulfillment process can significantly reduce operational costs. It also facilitates the tracking of licenses which has several benefits, such as the information about a software product that a publisher can obtain. Integrating licensing with all aspects of order-management and fulfillment allows other departments such as sales, customer service and IT to access and track licensing information.

Ease of fulfillment
The department responsible for fulfillment of licenses is often not highly technical. It is important to ensure that the process of fulfilling licenses synchronizes with the existing order process systems and does not create a hindrance to operations. An automated license fulfillment process can greatly simplify order entry tasks, leading to reductions in operating costs and improved customer service.

License Delivery Methods
With the proliferation of broadband, the internet is quickly becoming the primary choice for license delivery. The Internet offers many benefits as a delivery vehicle, including enabling self service and 24/7 license fulfillment support. Additionally, an internet connection allows the license to be bound to a client machine invisibly with little user interaction. One-click electronic license fulfillment can truly be realized with broadband connectivity.

However, the ability to manually deliver licenses must remain an option to meet customer needs. Internally, both automated and manual fulfillments should update the same order entry applications. This can be achieved by creating an intranet and extranet that interfaces with back office systems as well as with the license generation and fulfillment applications.

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Licensing Access Control and Authorization
There are two stages at which authentication is relevant. First, access to the license generation application needs to be controlled and limited to authorized users. The selection of authorized users depends on the enterprise and can be extended to allow partial access to third party fulfillment centers or channel partners. Second, authorizations should be created for users of licensed software. These authorizations can be used as proof of purchase should lost or damaged software need to be re-licensed. Authorizations can also be used to pre-generate licenses for delivery to valid users, channel partners or field service staff responsible for licensing.

USE AND ADMINISTRATION
Once the licensed software has been designed and enabled and licenses have been delivered, they reside in the domain of the end user. A good license management system has a high degree of transparency to its end users. Diagnostic and monitoring tools, however, have value both for the publisher's customer support department as well as the end user's IT department. The end user's IT department can use license administration tools for audit purposes to provide reports of active licenses.

Requirements of the end user vary from enterprise to enterprise. The administration console should support the ability to provide alerts, reserve and revoke licenses, and monitor the status of license servers as well as remotely manage the license servers across multiple platforms. Because these processes directly interface to the publisher's customer, user friendliness and simplicity is critical. Following are some of the key points to explore in a license management scheme in order to minimize the impact on the customers.

Multi-Platform Support
It is quite likely that the license administration application will be monitoring licensed software that is running on various operating systems. It is critical to be able to diagnose and monitor across multiple platforms with relative ease.

Failover
At no point should a valid licensed user be denied a license, as this damages the important user transparency. Failover support is vital in accomplishing 100% license availability. One or more back license servers should be available to take over should some hardware or software failure disable a license server.

Usage reporting
The ability to track the usage of software can have merits in terms of diagnostics for the end user's IT department. Additionally, usage tracking is beneficial for the publisher looking to perform market trend analysis. This information can be used to encourage user upgrades and renewals as well as improve customer satisfaction. The publisher can also use these reports to implement pay-per-use subscription software.

Centralized Management
An end user will likely purchase software from multiple vendors. These various software publishers may employ the same license management solution. In this case, the license administration software should be able to monitor all licensed applications from a single console. The license administration software should also allow the administrator to distinguish

between publishers for internal diagnostics and for preparing reports both for external and/or internal use.

CONCLUSION

One goal when implementing an electronic licensing scheme is to increase revenue opportunities. In order to maximize the efficiency of a license management scheme, it is critical to spend time in planning and design. Numerous license models can be used to increase revenue opportunities and varying degrees of security can be incorporated. In selecting a license management scheme, the end user's interaction with the system must also be considered. Such interactions include multi-platform support, failover, and centralized management. Ideally, the license management system will synchronize with existing business processes, enhance operations by reducing costs and increasing revenue, and remain flexible to adapt as the enterprise grows.

SafeNet Overview

SafeNet (NASDAQ: SFNT) is a global leader in information security. Founded more than 20 years ago, the company provides complete security utilizing its encryption technologies to protect communications, intellectual property, and digital identities, and offers a full spectrum of products including hardware, software, and chips. ARM, Bank of America, Cisco Systems, the Departments of Defense, and Homeland Security, Microsoft, Samsung, Texas Instruments, the U.S. Internal Revenue Service, and scores of other customers entrust their security needs to SafeNet. For more information, visit *www.safenet-inc.com*.

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