NetSuite Automated Software License Key Solutions

Explore Consulting helped us create a solution for an extremely complex system that we've been trying to simplify for years. They know NetSuite inside and out and we thoroughly enjoyed working with them. "

-Jill Herrera, Operations Manager, Cycling 74

Background: For any software company, the management of their customers' software license keys is a critical task. Explore Consulting has worked with many software vendors using NetSuite, and along the way have observed many common extensions needed to make this process seamless, while accommodating a host of unique requirements.

A common benefit of a software company's business model is provided by the unique nature of the software itself. In contrast to a physical product, software sales often allow for electronic delivery. In fact, when the actual software itself is openly provided on a trial basis the only item the customer seeks from a transaction is a license key to active the product. When coupled with the NetSuite web store or another external ecommerce system, the opportunity exists to implement a customer purchase process that is completely automated. NetSuite's optional electronic software download module provides the functionality to permit a user a limited number of digital downloads, but the delivery of license keys can become much more complex.

The particular software security model implemented by a company can take many forms and requires a flexible solution that can accommodate both present and future needs. NetSuite's SuiteScript and SuiteTalk customization capabilities provide the methods to obtain license keys, deliver them to the appropriate locations (customers, authorization servers, license key storage), and automate any associated tasks such as billing, follow-up CRM actions, or emails.

Explore Consulting has developed an Automated Software License Key Module for NetSuite which addresses the key issues of license key storage, license key generation, and process automation for software companies using NetSuite as their ERP platform.

Issue #1 – License Key Storage: The first step in developing an automated solution to manage license keys within NetSuite is to determine which systems should store the license key information. Once this is determined, it is necessary to model the license key and required fields appropriately. Should license keys be stored in NetSuite? Most often, the answer is yes. In most situations, NetSuite is the system of record, the order processing system, and the CRM solution. If customer service staff are using NetSuite or viewing data originating in NetSuite, license keys must be stored in NetSuite. However, it is also a very likely that the license key information will also be stored in another location. This is determined by the requirements for license key authentication. We commonly see the following three scenarios:

1. **One Time Activation** - The first time an end customer activates the software they are prompted for a license key. The software communicates with a server to determine if the license key is valid.

2. **Recurring Validation** – This scenario is like #1 except that the software typically checks for authorization each time it is used. This option is well-suited for software purchased on a subscription basis.

3. **Algorithm Based** - Unlike the first two scenarios, this option does not require the end

customer to have internet access. With this option the security within the software validates the provided license key using a proprietary algorithm.

For options 1 and 2 above, the authorization call from the software can be made to NetSuite via our module or to a license key authorization server hosted by the client or a third-party.

The modeling of a license key is also dependent upon the relationship between products and keys. We have worked with several models. These are dependent upon the relationship between license keys, the number of users, and optionally the number of modules added to a base product. Examples of license models are listed below.

1. **Simple** – One license key, one product, one installation, no modules or modifications.

2. **Enterprise** – One license key, one product, multiple installations or users, and no modules. The number of users associated with a license key can be dynamically changed within NetSuite.

3. **Enterprise with Modules** – One license key, one product, multiple installations, multiple users, and multiple add-on modules. This scenario is the most dynamic and flexible.

Once the authentication scheme and license key type are determined, it is possible to determine the license key fields stored in NetSuite. The Automated Software License Key Module utilizes a license key custom record within NetSuite. The flexibility of the custom record allows us to modify the solution as needed and expand to multiple records if the key requirements change. Any number of custom fields can be added, tailoring the solution to the exact needs of the client. The license key custom record also permits a NetSuite user to use the global search to locate a license key. The module also provides a custom tab on customer and transaction forms providing rapid access to license key information. These features can often result in noticeable efficiency gains for the customer service staff.

Common license key custom record fields include:

- License key
- Customer list reference
- Transaction list reference
- Item list reference
- Status
- Assigned date
- Deactivate date
- Key quantity

Solution: Explore Consulting works with our software clients to determine the most appropriate method to store license key data with NetSuite. We then develop the records and customize forms for the associated records based on permissions and process flow to optimize staff efficiency. The correct license key storage model within NetSuite will provide the basis for success on the remaining portions of the project.

Issue #2 – License Key Generation: Once the license key authentication scheme and storage has been determined, the generation of the license keys must be addressed. We commonly see the following scenarios.

1. **Algorithm** – The client provides Explore with the algorithm used to generate keys. This is incorporated into the Explore solution allowing keys to originate from within NetSuite.

2. **Pre-loaded** – The client provides Explore with a list of pre-generated license keys. The NetSuite CSV import tool is used to load these into the license key record. Alerts are configured within NetSuite to remind the client to reload license keys when the available level dips below a predetermined limit.

3. **Server Request** – An external server is used for license key provisioning. The server can be a custom solution developed by the client or a third-party server provided by a software security provider. Requests for new key allocation or deactivation are made from NetSuite to this server.

Solution: The location of the license key generation service is tightly coupled to the implementation of the security within the software product. Our goal is to allow our software clients the maximum flexibility in determining the appropriate solution for their business. When limitations imposed by API restrictions within NetSuite have been reached, we move outside the NetSuite box and build custom services in .NET or JAVA to fill the gap.

Issue #3 – Process Automation: Once license key storage and generation have been determined, the next step is to complete the solution by automating the full software sales process. In order to accomplish this, Explore works closely with the client and maps out a process for each internal and customer-facing sales process. These use cases are analyzed to determine which steps should be automated and in which scenarios. These use case scenarios can often exceed a dozen for a single software company after web store, direct, and wholesale sales are taken into consideration. Out of this process we commonly identify the following processes to automate:

1. **Sales order approval** – If specific criteria are met, a sales order is automatically set as approved, otherwise it requires staff review.

2. **Billing** – Before delivering the license to the end user, it is prudent to perform a funds capture against their credit card in order to reduce the likelihood of fraud. This step is normally performed by creating a cash sale in NetSuite associated with the triggering sales order.

3. **License Key Obtainment** – Utilize a solution from Issue #2 above to generate an appropriate key and save it to the license key record within NetSuite.

4. **License Key Delivery : Customer** – This step is often a customer email to the client that includes the newly-generated key and a download link. The customer license key email can be saved as a message record on the associated sales order.

5. **License Key Delivery : Third Party** - If an external key authorization or other server requires a provisioning request, it is made at this time.

6. **Invoicing** – For customers requiring invoicing, the invoice records are created within NetSuite and optionally delivered. This step can be performed monthly, daily, or in sequence with the other actions.

7. **Usage Based Billing** – If vendor payments are contingent upon usage of the product across a time period, analysis and data import can be performed that result in the creation of vendor bills or other transactions within NetSuite.

8. **CRM Tasks** – Phone call records, activities, or any other task can be automatically created for customer support or sales staff to follow-up the sales.

Solution: By using Explore's Automated Software License Key Module for NetSuite, the entire software sales, billing, and fulfillment processes can be automated. Customers' expectations of immediate license key receipt can be met easily and customer service demands can be dramatically reduced. The goal is automating every step possible to allow resources to be directed at developing the next version of the product and selling.

Results: A typical automated software license key process flow might proceed as listed below.

1. The customer visits YourSoftwareStore.com, purchases a product and pays via credit card.

2. The sales order arrives in NetSuite and initiates the Automated Software License Key module.

3. The customer credit card funds are captured against the original authorization.

4. The license key is requested from the software license key server.

5. The license key record is created in NetSuite and associated with the customer and sales order.

6. A dynamic, HTML based email containing the customer's information and license key is sent.

7. The delivered email is saved as a message record on the sales order.

8. A phone call task is created for the associated sales rep to perform a follow-up call in 7 days.

9. The customer receives their license key within a minute of completing their order, enters the key into the software, and successfully uses their now authorized copy.

By leveraging our experience in the vertical combined with a host a flexible and proven license key generation solutions, Explore can help any software company get the most from their NetSuite system and maximize efficiency.

About Explore Consulting

Based in Bellevue, Washington, Explore Consulting was founded in 2001 and is a professional services company dedicated to providing innovative and cost-effective solutions for their customers' database and IT systems needs. Having specialized in SaaS solutions for more than 8 years, Explore Consulting is the largest and most experienced NetSuite reseller and solution provider in the Northwestern United States. Not only is Explore a licensed reseller of the NetSuite product suite, but an experienced NetSuite implementation and integration partner. Whether you are looking for assistance with your NetSuite purchase and implementation or needing to integrate your NetSuite account to any external data source with our industry-leading CloudConnect™ service, we are your one stop NetSuite service provider. Explore Consulting is well-known as a leader in NetSuite customization, integration and extensibility. While NetSuite can run most businesses using out-of-the-box functionality, we're experts on adapting the product to meet your specific business requirements. Explore Consulting was recently included on the Inc. 5000 list of fastest growing privately owned companies in the U.S. for the third year in a row as well as the Puget Sound Business Journal's 100 Fastest Growing Private Companies. Explore has also been a 5-time NetSuite Star Performer and is well recognized as a leader in integration and mobile solutions for NetSuite. For more information, visit www.exploreconsulting.com.