Creating an Enterprise App Store
Addressing the Consumerization of IT without Jeopardizing Control
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Executive Summary
Think about the incredible level of convenience technology has brought to your personal life. A book review catches your interest. So you go online, order the book and download it to your iPad® or Kindle®. You hear a song on the radio that you want to share with a friend. You can download a copy from iTunes and within minutes it’s ready to play on your MP3 player.

This convenience is by no means limited to media content. There are thousands of applications that you can acquire almost instantly. They provide useful services in a nearly limitless number of areas. What’s more, you can access them from just about any personal device — your desktop computer, laptop, tablet or smartphone.

Employees in enterprises of all sizes and in virtually every industry are now demanding that same level of convenience in the workplace. This demand is driving a major trend, the consumerization of IT, which involves giving employees access to business applications in the same way and from the same devices they use in their personal lives. An online app store is proving to be a highly effective model for aligning IT with this consumerization trend.

An enterprise app store gives people a simple, intuitive means of finding and acquiring the applications they need to do their jobs. Employees achieve higher productivity through the ability to serve themselves. They get full visibility into and near instant delivery of available business applications, so they no longer have to spend time on the phone with the help desk.

An enterprise app store also enables IT to meet the demands of the business for more services and higher service quality while at the same time reducing costs. User self service results in a dramatic reduction of help desk calls, and that drives down support costs. In addition, the app store gives IT higher transparency to the business and helps IT change its image from technology provider to service provider. It also helps IT increase user satisfaction.

The challenge is to implement an enterprise app store without jeopardizing security, compromising regulatory and licensing compliance or driving up costs. That requires balancing ease of requesting and immediacy of fulfillment with effective control. To achieve this balance, an app store solution must meet stringent criteria. This paper examines those criteria and illustrates how Flexera Software App Portal meets them.

Criteria for Success
Solutions such as Flexera Software App Portal can accelerate your transformation to user-centric computing with an enterprise app store. As you evaluate solutions, keep in mind the seven major criteria a solution must meet to address not only the needs of the business user but also the needs of IT. An effective solution must:

- Facilitate user self service
- Ensure security and regulatory compliance
- Ensure software license compliance
- Control costs
- Provide rapid fulfillment
- Leverage existing resources
- Automate end-to-end processes

Facilitate User Self Service
The primary purpose of an online app store is to empower business users to find and request applications on their own. If you want people to take advantage of self service,
however, you must offer ease of use and permit access from a variety of user devices.

An app store solution that creates a consumer-oriented shopping experience meets these requirements. End-user customers use an online storefront in the same way they shop for music, books or other items. They select the items they want, put them in a shopping cart and proceed through a familiar checkout process.

To avoid confusion for your end-user customers, you need to be able to configure the store catalog to display only those items that each customer is authorized to request. This ability also gives you strong control over application access because employees see only the items they are authorized to access. Additionally, employees should be able to perform all activities through a single portal, from requesting software and scheduling delivery to checking order status.

Universal access is also essential. That means the storefront should be available over the Internet so people can request items from anywhere at any time. Universality also means app delivery not only to desktop computers but also to mobile devices. Finally, if your enterprise operates in global markets, support for multiple languages and currencies is a must-have to ensure simplicity for your users around the world.

Ensure Security and Regulatory Compliance

IT organizations are (and should be) concerned that an app store may put sensitive applications and data at risk. Consequently, an effective solution ensures that only authorized people have access to applications and that they can access only the applications they are authorized to use based on their role in the enterprise.

Even when people are authorized to use a particular application, however, management approvals may be required for compliance with internal policy or external regulations. To this end, automated approval processing is a mandatory capability. And the more flexible the approval process the better.

For example, the solution should support both single and multiple levels of management approval. The approval process should be dynamic, based on conditions such as cost, license need and user profile. Only designated people or alternates they choose should be able to approve requests. Approvers should be able to ask for additional information from requesters, suggest alternate software and even reassign the request to another approver. On the IT side, access to tools and data for managing the app store should be limited to authorized IT administrators.

Finally, an audit trail of all pertinent actions is essential because it enables IT to demonstrate strong access control and to document activities for security and regulatory purposes.

Maintain Software License Compliance

Done correctly, user self service offers huge benefits to the enterprise. Poorly implemented, self service can expose the enterprise to risk, particularly in the area of compliance with software license agreements. To avoid financial penalties, you need a solution that protects against overuse of software licenses.

The ideal solution helps you comply fully with license contract terms without overbuying. Software license monitoring helps significantly in this area by tracking the quantity of licenses owned, comparing it with what is installed and taking action when the count of available licenses drops below a defined threshold. That action can include a notification to purchasing to initiate the procurement process.

Control Costs

Some IT organizations worry that an enterprise app store will drive up costs. The thinking is that users will behave like patrons at an all-you-can-eat buffet and request far more than they need. Consequently, the enterprise will waste money on expensive software licenses and virtual server sprawl.

To minimize indiscriminate requests, you need a solution that lets you display the cost of each item in the storefront, and even charge back for higher cost items. The ability to display costs helps shape user behavior by making people aware of the cost implications of their requests. An additional desirable feature is to present the user with a list of alternate, lower-cost applications that may satisfy the user’s requirements.

License reclamation permits IT to identify deployed but unused licenses and reclaim them from the user community. Enterprises that leverage reclamation report substantial savings with respect to software licensing costs because they ensure full utilization of the licenses they have and avoid costly overbuying.

A flexible approval process can also help you control costs. For example, if the solution allows you to specify varying levels of management approval based on application cost, you can ensure that managers will be in the loop and intervene if their direct reports are requesting items they don’t need. You may even require the requestor to submit a business justification for certain requests. Managers can then make an informed decision to approve or deny the request. Additionally, the solution could present the approver with a list of alternate, lower-cost applications that offer similar functionality and may meet the requestor’s needs.

License leasing helps contain costs by temporarily allocating a license for a defined time period. Leasing helps IT optimize software license utilization to keep costs in check.
Create an Enterprise App Store

Provide Rapid Fulfillment
Consumers download software, books and music for their personal use in minutes. They want the same kind of speed for business applications. To address that demand, your app store solution must keep applications ready for immediate deployment in all popular platform and device formats. The solution must also offer a high degree of automation in request processing, including automated approval routing. Additionally, once all approvals are received, the solution should be capable of triggering automated fulfillment through enterprise software deployment tools.

Leverage Existing Systems and Expertise
Most likely you already have sophisticated tools and information bases in place to help you deploy applications to the user community. If you have Microsoft System Center Configuration Manager or Altiris Client Management Suite, for example, you not only have a powerful software distribution tool but also the ability to track application usage and aggregate data about users’ device configurations. Integration with Microsoft System Center Configuration Manager or Altiris Client Management Suite enables you to deliver applications quickly and efficiently and leverage Microsoft System Center Configuration Manager or Altiris Client Management Suite data to manage software requests and software assets more effectively.

A solution that integrates with Active Directory can access Group and Organizational Unit and other user information stored in that directory. The solution can then use that information to determine which applications a person is entitled to access based on the person’s role within the enterprise. The solution can then tailor the catalog accordingly for each person. This custom view of the catalog simplifies the request process and strengthens security.

A solution that permits interaction with other external systems offers additional benefits. The ability to interface with a service desk solution, for example, means that if an installation fails, a service ticket can be generated automatically to minimize delays in fulfillment. Or, the solution could trigger the execution of a script that creates a mainframe login.

Automate End-to-end Processes
Integration with workflow solutions such as Flexera Software Workflow Manager enables administrators to incorporate items in the catalog that, when ordered, trigger automated processes across multiple systems. For example, a new software request item could trigger a complete process that encompasses request approval, application procurement (FlexNet Manager Platform), application packaging (AdminStudio) and insertion of the item into the online catalog.

Integration with workflow solutions such as Microsoft System Center 2012 Orchestrator enables administrators to create automated processes that span multiple systems. As a result, administrators automate processes end to end, such as creating a service desk ticket when a software request is initiated, escalating the ticket if the installation fails and closing the ticket when installation succeeds. The status of the executed workflows appears within the App Portal interface in conjunction with the approval and installation status.

Figure 1. App Portal catalog
Creating the Store with Flexera Software App Portal

Flexera Software App Portal is a comprehensive and unified solution that meets all the criteria described previously. It integrates tightly with Microsoft System Center Configuration Manager or Altiris Client Management Suite, and leverages Microsoft System Center Configuration Manager data to support inventory management within your enterprise app store. It supports all deployment types within Configuration Manager 2007 and 2012, and supports both user-centric and computer-centric deployment models. App Portal also leverages Microsoft System Center Configuration Manager or Altiris Client Management Suite status messages, machine inventory and collections, taking full advantage of your current deployment system and expertise.

Familiar Online Storefront Model

With App Portal, users have a single portal through which they can browse, request items, check the status of requests and view their request history. As Figure 1 shows, the portal presents all applications that the user is authorized to request in a consumer-oriented catalog. The applications are Microsoft System Center Configuration Manager or Altiris Client Management Suite software objects that have been published in App Portal for deployment through the software storefront.

The catalog displays all available applications, not just those that have been previously deployed. The entry can also indicate attributes for each item such as whether and what approvals are required, hardware prerequisites and cost.

Fast Time to Value

It’s fast and easy to implement App Portal and to configure it to your unique requirements. It includes all the functionality you need in a single solution, so you don’t have to install and integrate multiple solutions or deploy client software.

Administrators can quickly and easily create the catalog from a template. Customizing the look of the catalog, such as choosing colors, adding logos and selecting languages, is simple and straightforward. Administrators can also create catalog entries from a template and specify attributes such as who can request each item based on user group, role, department or geography.

Strong Access Control

The catalog provides strong control over both user and administrator access. You can configure the catalog to show only those items that the user is authorized to request, so you can easily prevent unauthorized requests. You can base access privileges on security groups, organizational units, Active Directory properties and Collection Membership for both users and machines. You can also specify which catalog items require approval.

With respect to administrators, App Portal provides the ability to specify which administrators (or their designees) can access the catalog and to assign multilevel access privileges to each authorized administrator.

Robust Approval Workflow

With App Portal you can require approvals based on a number of factors, including cost, license availability, security groups, organizational units, Active Directory properties and Collection Membership for both users and machines. You can also establish single or multiple levels of approval. For example, you may specify that items costing under $1,000 must be approved by a manager while items costing $1,000 or more require both manager- and director-level approval.

Automated approval routing speeds time to fulfillment. The solution dynamically identifies approvers by name to ensure that only appropriate people can approve requests. For example, it can ascertain the name of the requestor’s manager through Active Directory. The solution can also dynamically determine the appropriate approval process based on other Active Directory attributes such as department, organizational unit or Collection Membership.

App Portal automatically routes approvals according to the workflow specified by the administrator. As Figure 2 illustrates, the approver simply indicates request approval or rejection by checking the appropriate box and clicking either approve or reject. You can notify approvers via email if you so desire to keep the process moving.
The approval process can trigger additional actions when necessary to avoid delays in fulfillment. For example, if there are not enough licenses on hand, the solution can bring the purchasing department into the loop to trigger the acquisition of additional licenses.

You can require that requesters enter additional information during the check-out process — for example, business justification for the request. App Portal provides question templates for soliciting this information. The answers are forwarded to the approvers along with the request, providing managers and directors with details to support their decision making. In addition to presenting questions to requesters, you can also have questions presented to approvers. So you have input from both requesters and approvers.

Flexible Requesting
Administrators have broad flexibility in specifying for whom requesters can make requests. Typically, most users can request items only for themselves and for their own devices. App Portal can be configured so that some people can request items for other users, devices and locations. For example:

- Managers can request items for their direct reports
- Help desk agents can request items on behalf of users

For some applications, users can request either immediate delivery or delivery at a later specified time. Administrators can limit delivery times to ensure that installations do not degrade network performance or interfere with business operations.

Inventory and Software Asset Management
App Portal leverages software asset information from Microsoft System Center Configuration Manager to provide inventory management for your enterprise app store. These capabilities help you better utilize the software currently in place so you achieve maximum return on investment.

Figure 3 shows the App Portal software inventory display, which indicates at a glance how many licenses the enterprise owns for each application and how many are currently in use. You can configure App Portal to deny a request when no license is available or dynamically change the approval process to include purchasing to obtain additional licenses.

License reclamation leverages software metering data to identify applications that are installed on a computer but are not being used. The solution can harvest unused licenses and assign them to people who need them. As a result, you eliminate unnecessary license purchases and contain software spend. Support for Asset Intelligence Last Used Date allows basic software usage tracking without creating individual Microsoft System Center Configuration Manager Software Metering Rules.

You can optionally include an email campaign as part of your reclamation process, sending out messages to people who have not used an application for a specified period of time. Recipients have the option of keeping the application or surrendering it. To keep the license, recipients must enter a valid business reason. If they elect to surrender it, App Portal can trigger Microsoft System Center Configuration Manager to uninstall the license and return it to the license pool.

You can also offer a lease option for certain items. For leased items, App Portal automatically triggers an uninstall of the associated software after the lease expires.

If your enterprise is looking for additional inventory software asset management capabilities, integration with the Flexera Software FlexNet Manager Platform augments App Portal software asset management functionality.

This integration makes available detailed asset data for each application, including the number of licenses owned, how many copies of the software are installed and/or in use and how many licenses are currently available. During approval processes, requests are routed automatically based on this data. App Portal leverages the Application Recognition Library (ARL) in the Platform to obtain information on what applications are installed on each device. The ARL covers more than 110,000 commercial applications from 14,000+ software vendors across multiple platforms including Microsoft Windows, Linux, UNIX (including over 2,000 IBM titles) and MAC OS.

When a user orders an item, App Portal checks for license availability with FlexNet Manager Platform. A license is then reserved during the approval and fulfillment processes, ensuring that the software is available for the requester once all approvals are obtained.

Administrators can also obtain software asset data per application filtered by Enterprise Groups for licenses that are allocated to specific departments, cost centers or countries rather than globally allocated. Enterprise Groups contain the number of licenses owned, how many are in use and how many are currently available.
Integration with IT Service Management and Workflow Systems
App Portal integrates with BMC Remedy ITSM, ServiceNow and Microsoft Service Manager to add a comprehensive enterprise app store to your ITSM environment quickly. Built for the unique characteristics of software, App Portal improves IT service quality with respect to application delivery and increases end user satisfaction with IT. It keeps service desk staff and IT operations groups informed and on the same page while giving employees easy and quick access to the business applications they need to be productive. App Portal can open, update and route incidents and change requests in your ITSM system as well as escalate failed installations to ensure full visibility into the automated delivery of software to your end users. The App Portal application programming interfaces (APIs) provide additional flexibility to tailor the integration to fit your unique needs.

Integration with Microsoft Orchestrator enables the creation of automated processes that span multiple systems. This integration broadens support to include requests for services and other items in addition to applications. For example, requests for new file share or password reset, or requests for items from a purchasing system can be incorporated into the online catalog.

Reporting
App Portal includes support for reports generated using Microsoft SQL Reporting Services. It also includes more than 40 built-in reports. Administrators can view existing reports, create and edit report categories, and create custom reports. Because App Portal maintains a complete history of software requests, approvals, installations and purchases, you have a built-in audit trail for software license and regulatory compliance purposes.

Conclusion
An enterprise app store empowers employees with the ability to serve themselves in obtaining software from IT. That empowerment brings significant benefits to both users and IT. Now, with Flexera Software App Portal, you can balance the freedom afforded by user self service with the control needed to ensure security, compliance and cost containment. So, you can open the doors to your enterprise app store and tap into its many benefits without jeopardizing control.

About Flexera Software
Flexera Software is the leading provider of strategic solutions for Application Usage Management; solutions delivering continuous license compliance, optimized usage and maximized value to application producers and enterprises. Flexera Software is trusted by more than 80,000 customers that depend on our comprehensive solutions - from installation and licensing, entitlement and compliance management to application readiness and software license optimization - to strategically manage application usage and achieve breakthrough results realized only through the systems-level approach we provide. For more information, please go to: www.flexerasoftware.com