

Requirements for Selecting a **Universal Enterprise App Store**



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Today there is really no such thing as a standard endpoint device.

Although application lifecycle management has always been challenging for enterprise IT, application service delivery and related tasks have become far more complex over the last few years. This increase in complexity can be attributed directly to the consumerization of IT.

It wasn't really all that long ago that most large organizations provided standardized desktop systems for their employees. Although the desktop hardware wasn't usually consistent across the organization, the desktop operating system, patches, and base configuration typically was. For example, an organization might have chosen Windows 7 with SP1 as the standard desktop operating system for their employees.

Today there is really no such thing as a standard endpoint device. While many organizations do still maintain standards for enterprise desktops, Windows desktops are no longer the only endpoint device from which users are working. Users today work from all manner of mobile devices both at the office, and while away from the office. Furthermore, users may also choose to work remotely from a personal computer whose configuration in no way resembles that of a standard corporate desktop. In short, Administrators may find themselves suddenly having to support a mixture of Windows and Mac computers, as well as just about any mobile device imaginable.

It is this proliferation of random devices that has led to the increased complexity of application delivery. After all, how is an administrator to deploy an application to the users who need it when the users are working from a huge variety of device types and operating systems?

Some organizations have attempted to address this problem through the use of Virtual Desktop Infrastructure (VDI). In a VDI environment, desktop operating systems are virtualized and run on a backend server. Endpoint devices act as thin clients that remotely connect to virtual desktops.

On the surface, VDI would appear to be an ideal solution to the device proliferation problem. After all, VDI technology allows enterprise IT to continue to run a standard desktop operating system and a standard set of applications, and employees can connect from the device of their choosing.

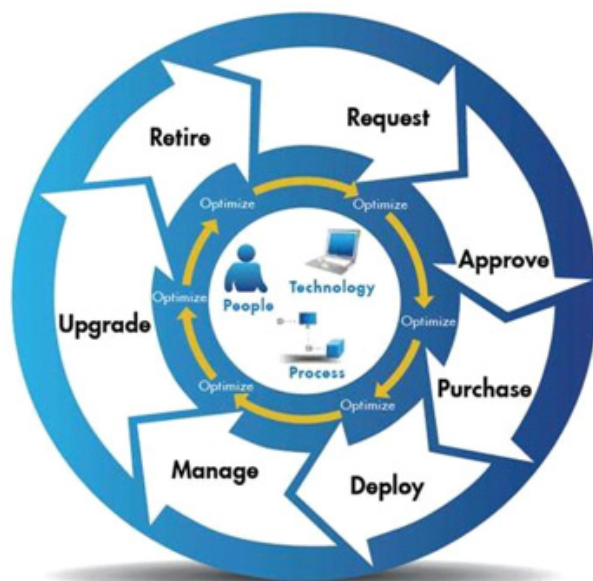
Users will generally have a better experience if they use applications that are specifically designed for their device.

The problem with using VDI in this way is that device form factor can become a major problem. Most of today's mobile devices are touch screen devices with no physical keyboard or mouse. Anyone who has ever tried to interact with Windows 8's desktop mode using a touch screen knows that interacting with a non-touch optimized environment from a touch screen device is cumbersome at best. Never mind the fact that a line of business application that is designed to run in full screen mode on a PC doesn't tend to display very well on a five-inch screen.

Users will generally have a better experience if they use applications that are specifically designed for their device. For example, a user is probably going to have an easier time using a touch optimized version of Microsoft Office that is specifically designed for their mobile device than they would if they tried to use the desktop version of Office on a touch screen device.

Of course this approach introduces challenges of its own. How can enterprise IT manage a huge collection of applications that are designed for a variety of different devices and operating systems?

Even as IT professionals work to address the challenges associated with application delivery, they must also deal with other problems such as shadow IT. At first shadow IT might seem to be an unrelated problem, but the challenges of shadow IT and application management are often closely related.



UNIVERSAL APP STORE REQUIREMENTS

1. Governance over software licensing
2. Automation of application request and delivery
3. Integration with IT Service Management
4. Support for PC, Mac, and mobile devices
5. Can be stocked with desktop, cloud, and mobile applications
6. Rich reporting capabilities
7. The ability to reclaim unused licenses

FIGURE 1 Enterprise Application Lifecycle Management

***In order to
be effective,
an enterprise
app store
must be truly
universal.***

For those who might not be familiar with the term, shadow IT refers to a trend in which employees go around corporate IT to get what they want. So how is this related to application management? Suppose for a moment that a user approaches the IT manager to request the iOS version of a particular line of business application. If the IT manager were to tell the user that IT will only authorize the Windows version, the user might decide to take matters into their own hands. There is nothing stopping the user from using a corporate credit card to purchase the application licenses from Apple's app store or to run the application in the cloud without the IT department's knowledge.

As daunting as the challenges of multi-platform application delivery and shadow IT can be, these problems actually stem from something very simple. IT pros and employees want completely different things. IT pros want to maintain order. They want to make sure that the applications that they deploy aren't going to introduce any problems. They also need to ensure that the applications are secure, properly licensed, and perhaps most importantly, cost effective. In contrast, employees want full, unlimited, unrestricted access to whatever applications they feel could help them to better do their job at a given moment.

In some ways, the employee expectations are understandable. Users have become conditioned to expect on demand access to apps through the app stores on their personal devices. Whether a user has a Windows device, a Mac, a mobile device, or something else, the user knows that the device's app store will provide them with on demand access to many thousands of apps. These app stores have become so popular and so commonplace that users have begun to expect a similar experience while at work.

The best solution to these problems is to create an enterprise app store. Doing so allows IT to offer apps to users in a way that is familiar to them, while also retaining control of which apps are made available. This allows IT to properly vet all apps so as to avoid apps that might introduce security risks.

There are a number of solutions available for doing so. However, a closer examination of the available solutions reveals that most of the available solutions do not adequately address the problems that are so

One of the first benefits to building a universal app store is that doing so simplifies application delivery.

commonly associated with application lifecycle management in enterprise environments. There are a number of criteria that must be met if an enterprise app store is to deal with the application delivery challenges that IT pros are facing today.

THE APP STORE MUST BE UNIVERSAL

In order to be effective, an enterprise app store must be truly universal. In other words, there should be one centralized app store that all employees can access regardless of what type of device they are working from. Such an app store should provide users with access to apps that are appropriate for the device and operating system that they are using at a given moment.

Although the aggregation of apps for various platforms into a single app store is important, this functionality alone is inadequate. In addition to supporting a variety of different platforms, an enterprise app store should ideally also support the installation of apps from a variety of locations. Such an enterprise app store might for instance display apps that exist within a local application library alongside cloud apps. These cloud apps might be apps from a mobile vendor's native app store, or the apps might be Software as a Service (SaaS) applications such as Office 365 and salesforce.com to which the organization already subscribes.

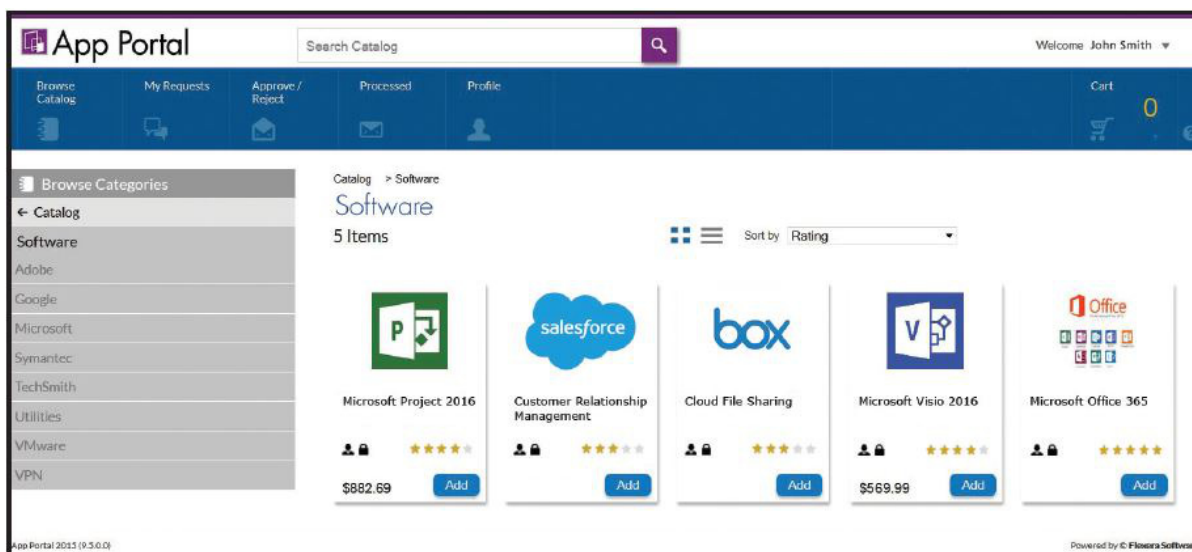


FIGURE 2 [Flexera](#) Software App Portal an enterprise app store for desktop, mobile, and cloud applications

Those organizations that deploy an enterprise app store often find that the administrative staff requires a more granular degree of administrative control.

The benefits that a universal enterprise app store provides for the employees are somewhat obvious. The users receive a consistent experience across all of their devices regardless of device type or operating system. More importantly, this experience will likely be familiar to the user since most users know how to access their device's native app store and download apps.

For IT professionals the benefits are somewhat less obvious, but are no less important. One of the first benefits to building a universal app store is that doing so simplifies application delivery. To better put this into perspective, consider the lesson that Microsoft learned back in the Windows 8 timeframe.

Windows 8 was released at a time when app stores were first becoming really popular. Needless to say, Microsoft created an app store for their new operating system, but their approach to doing so might be best described as overzealous. Microsoft created an app store for Windows 8, but they also created app stores for Xbox One and Windows Phone, both of which were based on Windows 8. As if that were not enough, there were also separate app stores for some of the Microsoft applications. For example, Microsoft Office had its own app store.

By creating so many different app stores, Microsoft gave its customers an inconsistent and potentially confusing experience. With that said, imagine what it would be like if you tried to create a series of enterprise app stores in an effort to accommodate a variety of device types and operating systems. From a management perspective it would take a lot of work to manage and maintain separate app stores.

Of course the financial impact must also be considered. There are direct costs associated with each app store that the organization deploys. The more app stores an organization creates, the greater the overall cost.

Needless to say, the employee experience must also be considered. Enterprise IT must simplify the user experience. Not only is the creation of multiple app stores confusing for the employees (especially those who work from multiple device types), but this confusion will likely lead to an increase in helpdesk call volume. Estimates for the average cost of a help-

A good enterprise app store should allow administrators to place limits on the apps within the app store.

desk call vary widely with figures ranging from about twenty dollars per call on the low end to over a hundred dollars per call on the high end. Regardless of the actual amount, there is a cost associated with each helpdesk call, so it makes sense for enterprise IT to do what it can to minimize helpdesk call volume. One way of doing so is to provide users with a simple, intuitive, and consistent app store experience that automates the service delivery processes and is integrated into the IT Service Management system. Many organizations have a self-service portal interface for their IT Service Catalog where employees go to submit help desk requests, by including the enterprise app store in their IT self service portal they can provide one place for employees to go and automate IT-as-a-Service.

ENTERPRISE IT MUST RETAIN CONTROL

As important as it is to provide a good user experience, it is far more important to maintain administrative control over the app store. As previously explained, users and administrators have different goals from one another. Users want on demand access to any app of their choosing, while the administrative staff is more concerned with issues such as supportability, compliance, security, and stability. Although these goals are different from one another, it is possible for enterprise IT to provide users with the experience that they want without creating a free for all and giving up administrative control in the process.

Every enterprise app store allows administrators to control which apps appear in the store. However, those organizations that deploy an enterprise app store often find that the administrative staff requires a more granular degree of administrative control beyond mere application inventory control.

Like so many other things in the world of IT, the requirement for granular control usually boils down to cost. Although an organization may choose to include some free apps in its app store, there is usually a substantial cost associated with licensing line of business applications. These licensing fees mean that granting users unlimited access to the enterprise app store would be similar to handing the user a corporate credit card and telling them to use it at their own discretion. While there may be some users who require unrestricted access to the enterprise app store, granting the average user unrestricted access could result in soaring software license costs.

Keep in mind that it isn't just an employee's call to the helpdesk that incurs a cost, but there are also costs associated with application deployment.

The bottom line is that an enterprise app store needs to be able to give users the ability to quickly and easily acquire the software that they need to do their job while also protecting the organization from risk and the cost incurred by users who download software that they do not really need.

A good enterprise app store should allow administrators to place limits on the apps within the app store. For instance, an administrator might choose to restrict access to a particular app to users within a certain department. Similarly, an administrator might opt to put some controls into place so that when a user requests an application the request is sent to the user's supervisor for approval.

ENTERPRISE IT MUST BE ABLE TO JUSTIFY THE APP STORE'S EXISTENCE

As anyone who has ever worked in IT management knows, IT spending is constantly under scrutiny. As such, IT managers must be prepared to defend their enterprise app store investment by being able to effectively demonstrate how it can benefit the organization. One of the easiest ways of accomplishing this is to demonstrate that the enterprise app store reduces the organization's IT costs.

A portion of this cost savings has already been discussed. As previously mentioned, there are costs associated with every call to an organization's help desk. These costs vary widely from one organization to the next, but there is always some cost associated with helpdesk calls regardless of an organization's size or structure. That being the case, an organization can reduce its costs by offering IT as a service in an effort to reduce the volume of calls to the helpdesk. An enterprise app store can reduce help desk calls because it provides users with authorized and approved applications, self service capabilities, and automated approvals.

Keep in mind that it isn't just an employee's call to the helpdesk that incurs a cost, but there are also costs associated with application deployment. Suppose for example that a user contacts the helpdesk to request access to a particular application. The helpdesk would normally have to verify that the user is authorized to use the application in question and then manually initiate deployment of the application to the user's

The most advanced enterprise app stores are able to perform software license management.

device. If the user happens to work from multiple devices, then the helpdesk staff may have to coordinate the deployment process with one or more IT groups depending on the device the employee is using (PC, Mac, phone or tablet). This installation process is time consuming and it incurs direct costs in the form of man hours (the time spent deploying the software or spent initiating an automated deployment process).

An organization can determine the cost associated with software deployment by estimating the average amount of time that the deployment process takes to complete and multiplying that by the organization's cost per man hour of service.

There are enterprise app store products available today that will allow the IT staff to enter the cost of manual software deployment directly into the software and get a dashboard view that shows the running total of the savings over time as employees make more self-service requests.

When a user performs a self-service application deployment, the operation is logged and the software estimates what the deployment process would have cost had it been performed by the IT department. This cost estimate is based on the cost per man hour data provided by the IT staff, which means that the reported cost savings are specific to the organization rather than being based on generic estimates.

Some IT professionals might be quick to dismiss these types of savings as theoretical and intangible. There is however, another way in which a good enterprise app store can help to reduce an organization's operating costs.

THE APP STORE MUST PROVIDE GOVERNANCE OVER SOFTWARE LICENSING

As previously mentioned, there are licensing costs associated with most line of business applications. Proper software licensing is required by law so an organization can't legally get around paying licensing fees, but an organization can use its enterprise app store software to maintain license compliance and reduce licensing costs in other ways.

The most advanced enterprise app stores are able to perform software

license management. License management ensures proactive software license compliance and that enterprises get the most value out of the software that they have purchased. It verifies that a license is available prior to installation, reserves the license while approvals are obtained, and prevents the installation of unlicensed software.

An enterprise app store is designed to empower employees and allow them to install any applications for which they have been authorized. However, employees don't always use the applications that they have installed or may only need temporary access to an application, like Microsoft Project. Software licenses that sit idle on desktops can be reclaimed by the app store and that license made available to another employee. Automated license reclamation has the potential to significantly reduce licensing costs since reclamation reduces the chances of licenses being wasted.

CONCLUSION

With a universal enterprise app store, IT can improve governance and reduce the administrative workload while also providing a better all-around user experience. However, there are major differences between the available enterprise app store solutions, so it is important to look for a solution that will support a variety of platforms while also supporting cloud applications. Ideally the software should also automate license reclamation so that software licenses can be used efficiently.

ABOUT THE AUTHOR

Brien Posey is an 11-time Microsoft MVP with over two decades of IT experience. As a freelance writer, Posey has written many thousands of articles and written or contributed to several dozen books on a wide variety of IT topics. Prior to going freelance, Posey was a CIO for a national chain of hospitals and healthcare facilities. He has also served as a network administrator for some of the country's largest insurance companies and for the Department of Defense at Fort Knox. When He isn't busy writing, Brien Posey enjoys exotic travel, scuba diving, and racing his Cigarette boat. You can visit his personal Web site at: www.brienposey.com.

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