



The App Store Model Comes to The Enterprise

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SUMMARY

Catalyst

Consumerization of IT is setting end users and enterprise IT on a collision course. Users are demanding, not only the sophisticated technologies that they enjoy on their smart devices or multimedia laptops, but also the flexibility and on-demand convenience to which they have grown accustomed with app stores. If they can download "apps" on demand, why can't they do the same thing with the software tools they use for their day jobs? IT on the other hand faces the pressure to contain costs and gain better control over software licensing and software tooling; all too often they are paying for licenses that go unused because they have not been able to update their software portfolios or licensing agreements, or they are supporting multiple versions that lead to downstream compatibility and support issues. Software-as-a-Service (SaaS) approaches have recently drawn attention for their potential as a means of standardizing software implementations and getting costs to reflect actual use. However, SaaS-based approaches to software delivery have not proven practical for desktop software tools that require the resources of a local client.

Ovum View

New approaches are emerging for desktop software tools that can provide the best of both worlds. For distribution, they emulate the app store model by creating internal enterprise "marketplaces" where end users can choose the applications they wish to run. For deployment, they leverage streaming technology and caching to encapsulate and deliver the application as an executable that is downloaded and run on demand, allowing the end user to work locally on the desktop. Instead of

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waiting for enterprise IT to install applications on their machines, For end users, the process is very much like the app stores often associated with mobile apps, where they can quickly search, view customer ratings, and then instantly buy and download "apps." For enterprise IT, the model provides the ability for end users, not only to get immediate access to the applications that they need, but also the ability to gain control over the software that is consumed inside their organizations. With these approaches, IT organizations can centrally manage licensing and versions of tools that are used, so that they can reduce or eliminate unused licenses.

Already proven to work at workgroup level with software development and data management tools by Embarcadero Technologies, this approach could provide another tool in IT's arsenal to both contain costs while satisfying end users with the levels of service that they have come to expect from consumer software app stores.

Key Messages

- Consumerization of technology has raised expectations from end users, who expect new levels of service from enterprise IT
- Time is money; most IT organizations are losing the battle with time when it comes to populating enterprise desktops with the applications that end users need
- IT organizations can leverage innovations from SaaS providers, virtualization technologies, and popular consumer app stores to eliminate traditional application rollout bottlenecks

CONSUMERIZATION OF IT HAS CHANGED END USER EXPECTATIONS

End users want the convenience of App Stores

Apple has done more than create a popular consumer technology destination with its online App Store, it has changed the behavior and mass perceptions around the acquisition and use of software. With its easy-to-use environment, Apple has built a marketplace that not only displays the customary peer reviews, but lowers the barriers to acquisition by offering apps at popular prices with instant downloads. Apple's success has reflected and influenced Google, Amazon, and Microsoft and others in the design of their app stores. Consumers have grown accustomed to online marketplaces that are easy to search, navigate, and access because the stores are embedded into their client environments while purchasing is integrated into pre-existing accounts.

Compare this to the usual experience of enterprise IT users. The experience is a highly complex process that requires time-consuming searches, discussions with colleagues, and requests made

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to an existing list of approved applications or the need to make a special request for approval to procure a new application.

While processes vary from company to company – even department to department, the result is often long, tedious, hard to automate, and too often a time constraint on business productivity. When new applications are requested, the workflow involves special approvals and submission of purchase orders. Once the request is approved, there may be the wait for IT to manually install the applications, not to mention assignment or transfer of software licenses between users or machines. The process can be more problematic for customizations, integrations or internally developed applications that need localization or regulatory compliance checks. And then there are the issues about whether the application as it is will run on the hardware and operating systems available. Time is spent planning for the rollout, packaging and regression testing on (one or often more) standard desktop environments, pushing out the software and any user glitches for specific issues on specific machines. This can be a thorny process even when configuration management solutions are used, or when hybrid models that require mobile or thin clients are involved.

Once applications arrive, there is often the need for shakedown periods to fine tune configurations of newly installed software, which adds yet another drain on IT organization resources. This, unfortunately, makes IT resistant to swiftly deploying new applications, or even upgrades, as they know how brittle the PC and client-server environments are.

Not surprisingly, with traditional application procurements and rollouts, it can be days, weeks, or months before users ever get to try the new software.

IT is pinched to contain costs

IT organizations are caught in the middle. As end users pressure them to match the kind of experience that they get with app stores, senior management is exerting pressure to cut costs. As a result, most IT organizations run extremely lean, and excluding the most mature organizations, most face long backlogs and the need to prioritize between the necessary and the "want to have." Meanwhile, because they are stretched thin, IT is not always able to get around to tasks such as managing their assets to eliminate the costs of inactive software licenses.

Not surprisingly, most IT organizations assume that they lack the resources to improve service, at least where it comes to delivering software to end users.

Time still is money

The wait for new software translates to a delay in time to benefit -- whether that be the ability of an enterprise to roll out a new product or service or implement a more efficient internal process. And delays in time to benefit ultimately impact the bottom line in lost opportunity for new sales,

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jeopardized relationships with business partners, missed contract deadlines, or the ability to realize new cost savings.

TAKE A CUE FROM APP STORES

Change the software access model

Traditional approaches to client software deployment and license management have proven costly and labor-intensive to maintain over the years. Not surprisingly, there has been no shortage of solutions for addressing this bottleneck. Solutions such as automated software deployment and asset management have required significant up front investment in software and skills, not to mention the long-term burdens of maintenance. Yet none of these solutions have significantly resolved the labor burden, and few of them have provided adequate coverage to get software licensing and versioning fully under control.

Ideally, IT should be able to deliver to end users the same type of app store experience when it comes to downloading applications that run on their machines. In effect, transform enterprise desktop application distribution to the "apps" business, where the user only needs to click on the icon and have the application seamlessly run without manual intervention.

Admittedly, the nature of the products distributed through consumer app stores is different than that of enterprise software; these "apps" are typically consumed for convenience or enjoyment, and not for performing work. Consequently, there is no need to be concerned about corporate licensing agreements or compliance with corporate policies or deal with the inherent complexities of installing and configuring applications for running inside the Windows environment.

In spite of these basic differences, the app store model has already made inroads into the enterprise. For instance, the popularity IT Service Management portals that provide catalogs of IT services have demonstrated the viability of applying social marketing concepts to corporate IT. The key is that anything that is offered through such a portal has already been certified and tested by IT, and in compliance with relevant policies and software licensing contracts.

Streaming and zero-touch deployment break the delivery bottleneck

Ideally, enterprise desktop software should be as easy to deploy as "apps" downloaded from an app store. The reality is that, while apps are installed on the consumer's device, they have a much smaller footprint and don't require the custom configurations that are routine for enterprise desktop applications.

The key for enterprise desktop applications is avoiding the installation process altogether with zero-install deployments. Approaches using web clients or virtual desktop integration (VDI)

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provided solutions that eliminated local software installation, but at the price of local functionality. In effect, each enterprise desktop or laptop client was reduced to a terminal.

A new approach developed by Embarcadero Technologies could break the bottleneck. The company, which offers a variety of database, administration, modeling and integrated development environment (IDE) tools to applications developers and database professionals, was aiming to simplify delivery and licensing of the multiple tools that it offers. Because of the nature of its products, which required local functionality, it required a new approach that allowed end users the ability to work without sacrificing the use of local processing and disk. Additionally, for backwards compatibility reasons, many of Embarcadero's customers required different versions of various Embarcadero tools so they could maintain software applications on a wide range of platforms and vintages.

The solution, originally branded ToolCloud, managed software deployment from a workgroup server. It provided a marketplace-like portal where customers could select the tool that they needed to use. The tools were then downloaded as self-contained executables to the client machine that did not have to be formally installed, thereby allowing end users the full flexibility and power of working locally without having to change their machines.

Broadening to a marketplace approach

The success of ToolCloud for Embarcadero products prompted Embarcadero to extend its offering to third party software with AppWave. They also expanded the deployment model; instead of the downloading of self-contained executable files, AppWave also adds a streaming mode where it "broadcasts" apps out to end users. For end users, this new option allows them to "tune in" to apps and subject channels broadcast by the enterprise apps store that are relevant to the tasks that they are performing. Besides the convenience, this allows enterprise users to run multiple versions side-by-side where necessary, while getting automatically notified when updates become available.

Addressing a wider audience outside the Embarcadero tools base, AppWave also added the enterprise "private marketplace" that helps end users identify and evaluate the apps that they are selecting, replicating the experience to which they have grown accustomed with consumer-oriented apps stores.

For the end user, AppWave Apps content is exactly the same as an "application," meaning users get full performance and all the features. Applications are self-contained in a single .app file, available to run instantly on demand, and are cached rather than installed on the local machine. As a result, they do not change the user's implementation of Windows (such as making changes to



the Registry), do not require formal installation or uninstallation, and do not cause the performance degradation that occurs as the consequence of formally installing applications on a local machine.

Administrators use Embarcadero's AppWave Studio tool to convert applications so they can be listed in an enterprise-branded app store and then broadcast to users as they request them. This process is called 'mastering' using a template for a specific third party application, provided by Embarcadero. The mastering process does not require programming or the typical packaging skills.

On the back end, administrators gain the advantages of centralized management, including the ability to continuously monitor and analyze usage, enabling them to match licensing to actual demand. Third party vendor licensing is supported, so apps can be assigned to a user or shared among multiple users, if the application vendors support concurrent licensing. Additionally, AppWave provides many of the features expected with online app stores or marketplaces, such as the ability for users to rate and share tips about running specific applications.

Finding the right approach

Embarcadero's embrace of the marketplace is part of a broader trend on the part of enterprise software vendors to make their offerings or the capabilities of their products more accessible beyond their traditional bases -- in effect, another example of the consumerization of IT. In this case, Embarcadero is adding the convenience of instant access by broadcasting, an approach that goes beyond streaming.

Its approach is aimed at addressing two core issues related to client software deployment: reducing the bottleneck for the end user to identify and locate the best software applications for their needs, and eliminating the wait for getting it installed on their desktops. For IT, it provides all the advantages associated with heavier weight traditional approaches, such as asset management for controlling and optimizing use of software licenses.

Clearly, this approach is best suited for resource-intensive desktop tools that require the full capabilities of a local fat client, and for software products that are commercially licensed. The benefits of discovery, immediacy, and broadcasting updates could also apply to custom software that is developed in house. The benefits increase with the number of client software licenses that IT must manage. Obviously, there is no relevance with web-based software that does not require local installs. There are also potential benefits for open source software; while community editions carry free licenses, there may be restrictions in usage that may require IT to track. Additionally, many open source tools are available in "enterprise" versions that carry support, and in many cases, expanded features; in this instance, the benefits for such a centrally managed approach would be the same as for packaged commercial software.

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However, these are still early days for this approach. Embarcadero is broadening this to the market to which it is most familiar. Conceptually, there is no reason why such an approach could not apply to more general-purpose software, such as Microsoft office. However, the key question at this point is one of scalability: when dealing with general-purpose software products the audiences will obviously be wider. Embarcadero has successfully demonstrated the viability of this approach at workgroup level. For enterprises exploring such options for software deployment, that is where they should direct their focus.