The enterprise app store

Evolution in IT strategy
Apple created a revolution with its app store. Consumers loved it. Naturally, other players are rushing in to meet consumer expectations. Vendors like Amazon, Google and Microsoft have begun to offer similar stores that have a self-service model. With the widespread adoption of mobility within enterprise, many consumers now want to see the same convenience and ease of use at the workplace that the online app stores offer. Can an enterprise afford to ignore the demands of its employees? Which enterprises will need their own Enterprise App Stores (EAS) and how will these stores operate?

Today’s enterprise users, volunteered in driving enterprise-wide mobility initiatives, have begun to demand simplicity of app portfolio management. To support this demand mobile EAS is the solution. An EAS is a customized in-house platform or infrastructure that lets users securely download apps and updates on their mobile devices.

An EAS typically hosts internally developed apps or packaged apps and sometimes points to external sites. Each user, based on permissions, business rules and location has a white list of apps that can be downloaded. Permissions can be manual or auto-generated using Mobile Device Management (MDM) software widely available from services like MobileIron, Airwatch, and Fiberlink.

In theory, this sounds perfect: enterprise users get access to what they need, at the time they need it and on the device of their choice. The enterprise has control over what the employee uses and when and where it is used with a well-defined distribution protocol. Additionally, complex app licenses and purchases can be streamlined and usage monitored with an EAS infrastructure. Everyone gains.

While application distribution across thousands of employees is greatly simplified by an EAS infrastructure, the challenges associated with ensuring a synergy between Bring Your Own Device (BYOD) solutions, apps roll out and apps lifecycle management are significant. Mobile portfolio introduces a complex set of attributes unlike other IT infrastructure: users are remote and the hardware they use is inaccessible, technology changes in the mobile space are abrupt and sudden, and device types change practically everyday. The mobile landscape is quite different from traditional IT environments that are largely location-specific and are driven by standardization.

Enterprises must adapt to these changes in the technology environment. If mobile apps and processes change one day, they should be able to roll out the change across the enterprise the very next day. In many instances, if they fail, the impact could be from loss of revenues to attracting compliance and legal censure. Mobility SLAs are more challenging.

No enterprise can hope to avoid the challenge. With innovation becoming the cornerstone of development and the growing popularity of enterprise mobility, corporate IT decision makers must focus on facilitating enterprise mobility. They need to understand the evolution of the trend, prioritize their long-term and short-term value frames and leverage the mobile EAS as a business driver.

EAS in an enterprise makes life easy for users and IT personnel. And because it delegates the sense of ownership to the user, the success of the BYOD program can be accelerated.
The driver of the mobile EAS

Considering the diversity of the liability schemes, technology options and distribution semantics, mobility within corporate information systems is heralding fundamental changes in traditional IT architecture, infrastructure provisioning and delivery management approaches.

Enterprises across the world are racing to leverage the BYOD trend. For the first time in history (in October 2011), CTIA-The Wireless Association reported that the number of wireless subscriber connections (322.9 million) had surpassed the population (315.5 million) in the United States and its territories. A January 2012 study by IDC says that the world’s mobile worker population will reach 1.3 billion by 2015, representing 37.2% of the total workforce. Businesses need to prepare for this by creating budgets, strategies, policies and the infrastructure to address the trend.

BYOD offers a convenient but lenient model for mobility adoption programs which demand a self-service infrastructure with limited or no support from the IT department.

IDC suggests that enterprise should treat “mobility as the short and quick way to business automation and productivity enhancement in a cost-effective way.” But mobility adoption is not just another IT modernization or enablement exercise to replace or complement legacy IT investments. Most IT leaders are considering mobility as a long-term strategic initiative to meet business requirements and drive innovation. Strategies that unlock greater operational efficiency, optimize cost overheads, enhance productivity, flexibility and sales potentials are at the core of their mobility vision.

Trends shaping mobile EAS strategy

Enterprises are hurrying to mobile enable their workforce. An increasing number of enterprises have invested in customized mobile applications to ensure their teams are nimble and agile. A study by Kelton Research as far back as January 2011 showed that 21% of enterprises with a revenue of US$ 100 million and above in the UK and the US were planning to release 20 or more mobile apps. Vendors like SAP, Google, Oracle and Salesforce see 2012 as the year of mobile dominance.

They are rolling out pre-packaged mobile applications that could be easy to customize, quick to deploy and will be cheaper than building and maintaining in-house apps. The acceleration in mobile enablement provides traction to the early stages of EAS adoption. However, there are constraints on flexibility and scalability as business needs grow and technology matures.

While determining the enabling technologies and drivers for enterprise mobility, the IT team must embark on sustainability through a thoughtful assessment of technology evolution cycles. The team must baseline best practices to align the mobility strategies with long-term business goals.

As the multi-platform app portfolio of enterprises grows, there are a number of tactical decisions that the business will need to make around:

- Streamlining procurement
- Managing cost over runs in the proliferation of mobile apps
- Adding and updating apps for instant organization-wide deployment
- Application distribution, support and lifecycle management
- Application configuration for end users
- Policies and security for mobile app usage and data/content management
- Tracking app users and assets
- App licenses and payments
- Compliance requirements

Addressing these dimensions can propel a mobile EAS to new levels of functionality. But they must be addressed early, before the apps are rolled out at a rapid pace.
Business value proposition of mobile EAS

Some industries have begun to display leadership in the mobility race. These include Financial Services and Insurance, Construction, Energy/Oil and Gas, Government, Manufacturing, Logistics, Healthcare, Legal, Pharma, Market Research etc. Their employees have begun to create business innovations around their devices and mobile apps.

Mobile EAS derive their appeal from the fact that they have a natural demand from employees who can instantly provision their own apps without having to wait for requisitions to be approved and helpdesk intervention. From an enterprise perspective, an EAS delivers safe and approved apps that can be tracked for usage and to accurately determine costs and measure ROI. This aside from the fact that provisioning apps for thousands of employees requires the same time and effort as it would for a single employee.

To continue the win-win situation, enterprises must prepare a strong governance model and an EAS infrastructure that facilitates well-defined distribution protocols and controlled app lifecycle management. As an example, a sales team in Europe need not have access to the version of an app meant for the Middle East. Similarly, finance or development teams need not have access to sales apps (and the other way around). User preferences and technology change fast in the mobility space and the EAS must be able to record and register user preferences that can alert the EAS team to app store enhancements.

Outlining Mobile App Eco System: What really happens

IT should determine the readiness of the organization in terms of internal mobility profiles and associations, corporate policies, investment planning as well as the business drivers prior to formalizing app store deployment strategies.

As a next step, the IT teams should identify the cross-functional user profiles and operational silos to baseline mobile app distribution semantics within the app store environment. The operational environment, user profiles and work status, and the criticality of processes would influence the EAS configuration and app deployment parameters. It is therefore recommended that EAS provisioning should be through shared deployment and management services across the enterprise.

The key is to build out a BYOD program that facilitates rapid mobility adoption across the enterprise along with cost-effective deployment from the early stages itself. An EAS can be crucial in achieving this goal. A well thought out EAS can become an integral part of the Application Lifecycle Management (ALM) process. It can enable the secure distribution of the complete app portfolio to relevant stakeholders and can be automated to manage app updates across user devices, bringing down IT intervention and support costs.

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<th>EAS</th>
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<td>Don’t ignore employee recommendations for specific apps. When employees select apps, it builds ownership.</td>
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<td>Don’t ignore security issues related to apps – if apps reach the wrong employees, data can be compromised.</td>
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<td>Do provide employees the right apps that enhance productivity, on the right device</td>
<td>Don’t underestimate user access data; usage can tell you which apps are popular and which are not. Use this to refresh the store.</td>
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<td>Do ensure apps in the store can be disposed and updated regularly (controlled app lifecycle management)</td>
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Do’s Don’ts

Do decide on the apps catalogue and ensure apps are aligned to the long-term business strategy and the BYOD program

Have well-defined app distribution protocols based on roles and geos

Do provide employees the right apps that enhance productivity, on the right device

Do ensure apps in the store can be disposed and updated regularly (controlled app lifecycle management)
However, many enterprises have failed to predict major hurdles in the form of a changing mobile device and platform landscape. This has been further compounded by a lack of standards, inadequate governance measures and development and operational overheads. These are major bottlenecks for an organization and can effectively cancel out any ROI that a mobile EAS promises to yield.

One of the models to secure early ROI is to have SaaS solution providers build dedicated EAS. These stores offer subscription based services and are ideal for the mid-market segment. The ‘App Store as a Service’ can replicate the SaaS business model and leverage existing multi-tenanted infrastructure to complement their offerings with enterprise mobile apps!

App store provisioning is an important step towards establishing the business model. Traditional SaaS models do not have a distribution and version control mechanism that mobile users need.

Can you wait until the way forward is clear?

Not all enterprises are ready for a mobile EAS. However, the risk of not considering an EAS as part of a mobile strategy is rooted in the fact that IT will stay in a state of chaos as devices and apps proliferate and employee dissatisfaction rises. Organization cannot afford this risk. To mitigate the risk, they will need to consider an EAS.

Mobilizing an enterprise is more complex than embracing a BYOD policy – although that is an essential first step. Mobilizing the enterprise involves working with technology partners who can keep pace with rapid changes in platforms that underlie user behavior and who can reduce the cycle time to create new platforms for app management. Ultimately, it is about keeping pace with change, keeping costs down, meeting employee expectations and simplifying technology.
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