



Mobile Application Management

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Mobile Application Management (MAM): Reduce the chaos around mobilizing the enterprise

It is possible that your business, riding the Bring Your Own Device (BYOD) trend, was busy developing and deploying a Mobile Device Management (MDM) strategy. Many businesses are busy taking the next steps. They are investing in mobile applications. A few are developing custom mobile applications. It isn't surprising that some CIOs have made an alarming guess: the coming mobile application sprawl within the enterprise will soon lead to chaos.

We believe that Mobile Application Management (MAM) or specifically Mobile Application Portfolio Management (MAPM) is going to be as big and as important in 2013 as MDM was in 2012. The mantra "manage the application, not the device" is going to ring across IT departments. Reason? Enterprises are discovering that MDM is only a part of the solution to enterprise mobility. It is even more important to ensure that enterprise applications are delivered in a

secure fashion with adequate compliance controls to meet the mobile lifestyles of end users.

Many of the applications being used by enterprises are off the shelf. They are at Google Play, in the iTunes store, at Evernote, Quickoffice, Dropbox, etc. Many are customized or with wrappers in the app stores of the enterprise. The challenge for IT is to deliver these enterprise apps (and control them) without impacting the user's privacy or taking control of the user's personal mobile device.

As an example, an enterprise user may have access to office mail, collaboration tools, operations and sales dashboards on a mobile device. All of these would be secured by a password and need user authentication. But with MAM, if the same user were to turn to the maps app to seek directions to a restaurant or play a game, they won't need to use a password to unlock the phone. Similarly, when an employee is separated from the business, IT could remotely wipe all enterprise apps and data from the mobile device without affecting the user's personal apps.

MAM performs a critical function. It ensures that the enterprise does not have access or visibility to personal apps and data on the device. This means if you want to download Fruit Ninja, you can go right ahead.

Defining Mobile Application Management

Before analyzing the implications and need of MAM, let's stop a moment to closely define the phenomenon. MAM is the delivery and administration of enterprise software to end users on their mobile device that may or may not be personal. MAM's focus is on delivering software, licensing, security, usage policy, access/ user authentication, configuration, updates, maintenance, reporting and tracking, roll back and application refresh/ retirement. If this sounds familiar, it isn't surprising. Enterprises have been doing this for ages. Except they have been doing it in a desktop environment. They need to do the same for mobile devices.

MAM is different from desktop application management. To start with, it is difficult for the IT department to easily get physical access to the device as

employees are always on the move. An equally overwhelming challenge is that IT has to deal with diverse operating systems accessing a variety of networks.

The Cost and Convenience: The MAM Framework

Clearly, applications in an enterprise cannot be managed the same way they are managed in a store (see Figure 1: Mobile Application Management). Within an enterprise, there are costs associated with developing, maintaining, supporting and securitizing apps, upgrading and enhancing them, personalizing them, ensuring that the user experience across devices as well as the desktop is consistent and app updates and new apps are pushed to users. The last is becoming critical in an environment where regulatory pressure is growing and apps may need to be refreshed or replaced at short notice across the enterprise.

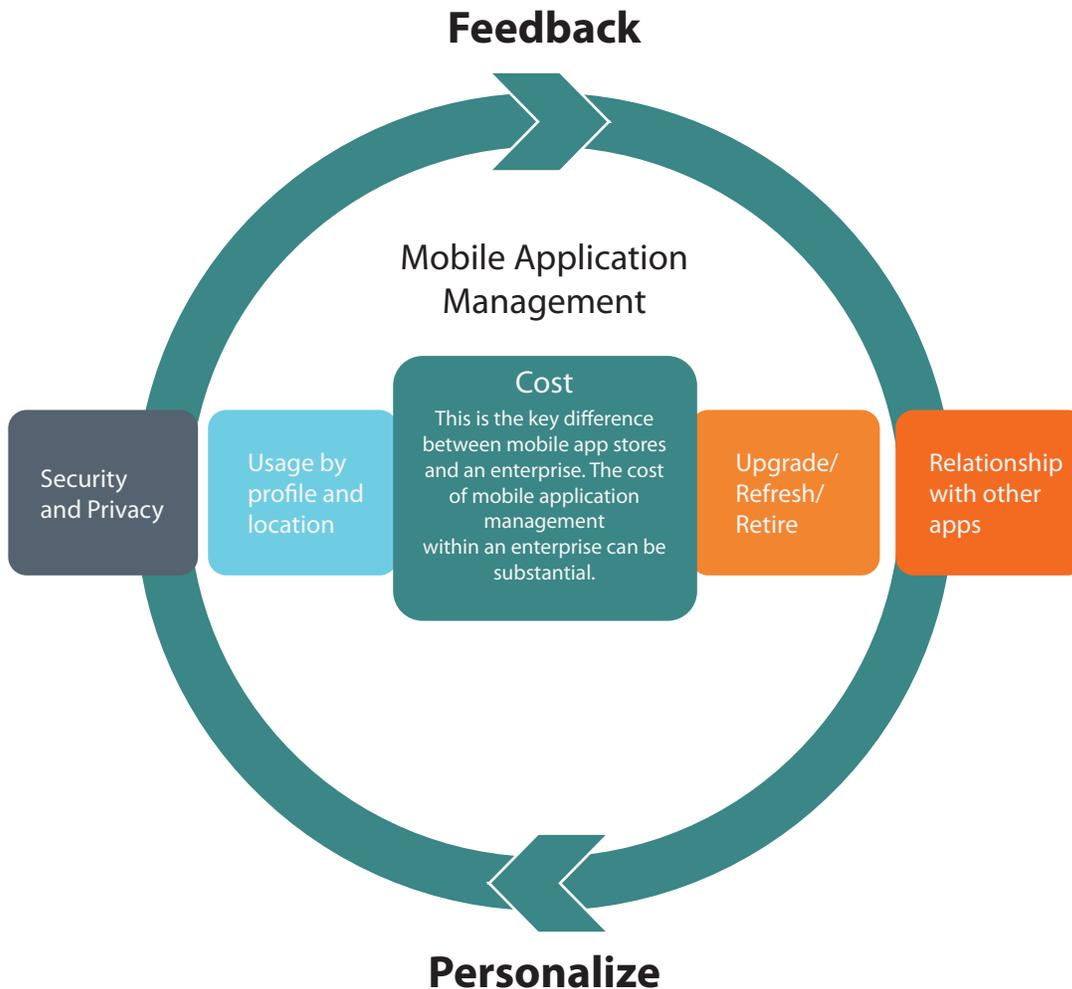


Figure 1: Mobile Application Management

Enterprise mobile applications (and their versions) need to be tracked for a variety of reasons. This is where an MAM framework becomes important.

MAM provides the enterprise with an inventory of the company's mobile applications and metrics to capture and illustrate the business benefits of each application. Using a scoring system, an MAM system generates reports on the health and value of each application. The system can analyze metrics related to the age of an app, who uses it most often and how often, the cost associated with its maintenance, its relationship with other apps, etc. These metrics allow managers to take accurate decisions on whether or not an app should be retained, upgraded, retired or replaced.

MAMs can be built to compare devices, owners, heat zones for app usage etc. to define and constantly refine IT policies. These policies can be deployed to optimize provisioning when a new device is activated within an enterprise.

MAM can also be thought of as a system or deployment framework for mobile apps that provides enterprises with the tools and rules by which to target mobile applications across devices and users on a single infrastructure.

Why is it Important for Enterprises?

MAM is about implementing a repeatable process to assess applications, their health and their value to the enterprise. At any given point in time, the enterprise must know:

- Which applications are performing/ not performing
- Which applications fall within and which fall outside the architectural requirements
- Which applications need to be retired
- Which applications need to be upgraded/ enhanced
- Which applications need to be replaced

The answers to these questions help dramatically reduce the costs of maintaining existing applications. The result can free up budgets for investment in better apps.

This brings us to the definition of apps, so that strategy around app management remains clear and decisions are easier to make. In our experience, the definitions around apps can become an issue leading to delays

in implementation of MAM strategies, loss of focus in the MAM initiative and inadequate ROI.

There are two terms that need clarity:

1. **Mobile application client:** This is an application which resides on the mobile device. It leverages the native platform library and/or web to deliver some or all processes needed to create, update, manage, calculate or display information for a specific business purpose. The client interacts with backend systems to acquire information related to business processes.
2. **Mobile application component or series of components:** This is a library comprising of UI, business rules and data acquisition and integration processes available as native, 3rd party or web components. These components are controlled by either platform OEMs or 3rd party Mobile Application Development Platform (MADP) vendors.

To be effective, MAM should ideally embrace both the terms discussed above.

Implementation:Way Forward

In a mobility context, examples of MAM are given below:

Custom enterprise app store: This is perhaps the most easily understood – and widely applied – solution. A custom portal enables the distribution with platform-wise or device specific catalogues of internal apps. Using enterprise or ad-hoc provisioning mechanisms, users access and download the apps from these stores to their devices. Update or change notifications can be configured to be delivered via SMS or email to users. Among the biggest advantages of a custom enterprise app store is that app distribution can be controlled based on user roles. At Wipro we designed a store called AppLife for internal use that manages apps, security and delivers usage metrics for app enhancement. The usage metrics help the enterprise understand who is using which apps, the apps that need to be retired, replaced or enhanced in order to bring down maintenance costs and improve ROI.

Enterprise app catalog on device: The mobile device holds a shell application that contains all the enterprise apps. Complete app management (additions, upgrades, deletions) is enabled from within the shell. The enterprise app catalog on the device provides employees with a wider and deeper level of freedom to choose the apps they want. This is in keeping with the spirit of

BYOD where employees don't feel constrained by restrictions placed on apps and their usage. Such an implementation also implies the need for greater control over device level security.

MDM enterprise app store: MDM vendors provide integrated app stores along with standard device control capabilities. The stores enforce security policies on the devices as well as the apps. These could imply additional training, deployment and maintenance costs. Before adopting such a solution, the enterprise must ensure that the MDM enterprise app store is capable of capturing and reporting critical usage metrics that are in turn used for app store enhancements. Without such reporting, end user satisfaction could be

quickly impacted leading to the failure of the initiative. An MDM enterprise app store has license cost implications that businesses must be aware of.

3rd party MADP controlled app store: MADP vendors provide app management from their middleware. This helps control the mobile app lifecycle. Such app stores come with a standard look and feel and the customization capabilities of such an app store are non-existent or limited. The associated license costs for an MADP controlled app store can be a concern for the business.

The pros and cons of each implementation methodology are shown below (see Table 1: Implementation pros and cons)

Pros and Cons: Cost, Convenience and Capability of MAM Implementations				
	Custom enterprise app store	Enterprise app catalogue on device	MDM enterprise app store	3rd party or MADP controlled app store
License Cost	●	●	●	●
Customization	●	●	●	●
Security enforcement	●	●	●	●
Application distribution	●	●	●	●
Multi-site deployment	●	●	●	●
● = High ● = Medium ● = Low ● = Not applicable				

Table 1: Implementation pros and cons

Recommendations for Enterprises

Before creating an enterprise MAM strategy three detailed exercises must be completed. These are meant to ensure ROI on BYOD initiatives:

- A comprehensive definition of mobile apps that ensures the creation of a dependable catalogue of apps installed in the enterprise
- An assessment of apps which includes an audit of apps, infrastructure and security policies
- A gap analysis that maps current state and clearly defines the desired end state

MAM is meant to keep employees and customers happy. But more than that, it is meant to improve productivity and deliver strong results to the enterprise in terms of increased ability to innovate, meet market changes, and lower cost of operations.

Mobility is now central to the modern enterprise and investments made in mobility cannot be underestimated or delayed. As your business begins to adopt BYOD practices it must simultaneously build app management capabilities.

About The Author



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Anand has over 16 years of industry experience in IT industry with 10 years into enterprise and consumer mobility space. He has led more than 5 Mobility consulting engagements in the past and currently heads the presales and solution architecture group for Mobility in Banking and Financial Services.

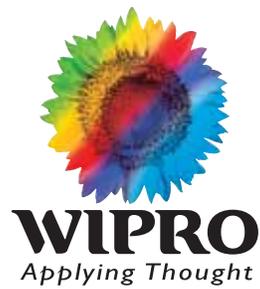
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