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Tablet integration into enterprises

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Contents

Tablets, BYOD and the corporate landscape	3
The Problem	4
Solution Options	4
The Vablet Solution.....	5
<i>Push Technology</i>	<i>6</i>
<i>Instant On: Instant Access</i>	<i>6</i>
<i>Security and file encryption</i>	<i>6</i>
<i>Reporting Analytics</i>	<i>6</i>
<i>Application Program Interface (API)</i>	<i>7</i>
Implementation.....	7
Summary	7

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Tablets, BYOD and the corporate landscape

Surprisingly, tablet devices have been around for some time. It only seems like it started with the introduction of the iPad in 2010. And, with the recent introduction of Amazon's Kindle Fire and the Barnes & Noble Nook, tablets are now being sold at astounding rates. Apple estimates that they will ship 65 million iPads this year alone and they will have shipped more than 100 million iPads by the end of 2012. According to recent IDC research, the total estimated number of tablets sold will reach close to 500 million by 2015. This adoption rate is more accelerated than PCs, laptops, mobile phones and other wireless devices.

Designed for consumers, tablets provide personal functionality as well as mobile access to social media, music, shopping and most forms of personal information. Because they have become so tied to this personal functionality, tablets are now infiltrating corporations at the same historic rates. This rapid and mostly unplanned introduction, referred to as "bring your own device" (or BYOD), has created new challenges for enterprises. The issues of corporate control versus personal control, privacy, user experience, and trust make this integration very complicated.

Further, recent economic conditions have affected corporate budgets, reduced labor forces, and generally limited corporate resources, therefore focus has migrated away from growth and innovation toward retrenching, consolidation and downsizing. As a result, many enterprises are not readily equipped to deal with the demands that tablets create. Regardless, the BYOD phenomenon has pushed IT departments to have to deal with tablets in their environments.

Application developers, PC security and anti-virus companies have been working to create solutions for this problem. These solutions are generally referred to as mobile device management (MDM) or mobile application management (MAM) applications. As the acronym states, MDMs are device-oriented and, by managing the entire device, companies are able restrict device usage of certain applications as well as restricting their connectivity to corporate-owned servers. MAMs focus on which applications are "allowed" to be used on the devices. The idea here is that restriction of *flexible or open* applications will limit how information is used on the devices. But, are MDMs or MAMs the entire solution? Placing too many restrictions on end-users can be cumbersome to productivity and decrease the usability of the information on these devices. Further, many of these solutions still allow distribution of content to accessible folders, but they typically lack protection once accessed. This access is the real threat.

In general, MDM solutions may be counterproductive to the BYOD philosophy. Tablets are naturally *personal* devices each with a personal assortment of applications, games, files, photos, contacts, etc. it would make sense that an organization would want to adopt the personal nature and benefit from the resulting high user satisfaction. Better

user satisfaction has been shown to generate greater productivity, and what company wouldn't want that?

The Problem

The most significant problem created by tablet devices (and BYOD) is that enterprises can easily lose control of very sensitive proprietary information once it leaves their servers (e.g. data leakage). The exposure can be very risky, not only from the perspective of competitive information, but also from a corporate liability perspective. Does the enterprise know what the end-user is doing with the information on the device?

Currently, tablets lack the controls and functionality required to limit access to limit access to corporate environments, to limit access to freely available applications and to determine how corporate files are being used. Email, which has been the most widely used "solution" to get content onto mobile devices, is *not a solution*. Studies have shown that most companies have no clear strategy on to how it will control, protect, distribute, and interact with their proprietary content among the various mobile devices utilized by their end-users.

A typical enterprise will have hundreds if not thousands of mobile devices on various platforms and generally most of these devices are owned by the employee. They will need security, synchronization methods, monitoring and reporting. Support for Microsoft Office files, PDF files, graphic files, and HD Video is also essential. This is almost impossible to accomplish without a centralized management tool that enforces mobile device content control and security.

Solution Options

The solution options are varied depending on corporate goals, IT infrastructure, the operating systems and devices. Because environments are uniquely complex enough, enterprises should spend the required time to fully investigate and implement a total solution.

If an organization chooses iOS devices, they will have the most options. In contrast, organizations that choose Android will find more limitations. Microsoft, which is the preferred technology provider to enterprises, currently offers no meaningful options to address these requirements.

There have been many attempts at solving this BYOD issue. Email is clearly not a solution, cloud storage must be accessed via Internet connection, searching for files is time consuming, version control can be very haphazard and a lack of analytics provides no true value. Most of the current solutions fall short in one aspect or another.

The most recognized brands that enterprises will evaluate may include:

- GoodReader
- Good for Enterprise
- Dropbox
- iCloud
- box.net
- MobileIron

These products all comprise part of the overall mobile solution, but none provide a complete end-to-end solution.

The Vablet Solution

Today, a more complete solution is available; one that uses push technology, encryption/security, reporting analytics and application programming interfaces (API). *Push*, as it is implied, is the capability of an enterprise to place company files on the device of an employee end-user. The end-user is not required to search for files, they are not required to monitor the version, to validate the authenticity, or determine whether or not they should or should not have the file on their device. All of this is done by the enterprise.

Vablet™ is one such application that provides the best elements of push technology as well as the utilization of the opportunities brought on by new technologies; such as cloud-based computing. **Vablet** is a mobile application platform that acts as the gatekeeper, keeping files secure locally on the mobile devices and readily available to only those who have been given permission to view the files.

Vablet is a secure mobile file management and distribution application. It provides enterprises with a secure, centrally-controlled distribution mechanism with enhanced multi-function viewing capabilities that supports all the popular file formats. It provides full management and reporting capabilities on content distributed among all mobile devices, whether in a network, on a singular device or among a specific group of devices.

The application is useful across many vertical markets including banking, sales forces, healthcare, life sciences, financial services, entertainment, retail, digital signage and education.

The following table provides a look at many of the problems related to content “going mobile” and the solution brought by **Vablet**.

Mobility Problem	Vablet Solution
Data Leakage	Content is secured in the Vablet app "container" folder
Disjointed content distribution	Centralized distribution allows push to multiple devices
Lack of security in content distribution	"Locked down" content secured to device
Outdated content	Syncing of all content ensures version control
Multiple file formats	Standardized viewers within Vablet
Need to revoke content	Centralized revocation of content
Connectivity not assured	Content is stored locally where policy allows
No reporting and tracking capability	Centralized reporting and tracking on a file-by-user basis
Fragmentation in tablet operating systems	Vablet supports popular tablet platforms
Hard to integrate tablets with legacy systems	Vablet's content API allows programmatic control

Push Technology

Push technology gives administrators and content managers the ability to determine which documents go to which employees. Files can be organized in multi-tiered folders by the device or by groups of devices. **Vablet** eliminates the troublesome process of having end-users *pull* documents from a cloud or FTP server.

Instant On: Instant Access

With **Vablet**, content is always on the device and is as organized as needed. Files reside locally and there is no requirement to be connected to a WiFi or a 3G-4G network to pull the files down from their source. End-users don't have to go searching for files in the cloud when they already exist on the device.

Security and file encryption

Vablet utilizes its' own proprietary 256 bit encryption algorithm on a file-by-file basis. Because no encryption is the same, if one file is ever compromised, the encryption on the next file is completely unique. This encryption is also in addition to, and on top of, the standard iOS encryption. Lastly, **Vablet** utilizes Microsoft's secure Azure storage, providing another layer of protection.

Reporting Analytics

Vablet provides robust reporting analytics. Enterprises can understand which device has used which files, when, for how long, how many times and where. Compliance in the financial world is critical these days as government regulations require companies to track employee activity on a very granular level. **Vablet** has that.

Application Program Interface (API)

The **Vablet** proprietary APIs allow enterprises to programmatically push files from their ERP or CRM software directly onto one or all mobile devices. This is a unique feature that provides immediate benefit to organizations that want to automatically generate a variety of reports.

Implementation

Vablet is based on the Microsoft Stack and currently is run on Microsoft's Azure platform. However, it could be implemented on a private cloud or on a corporate Windows Server 2008, if business needs dictate. The **Vablet** application can be downloaded from the Apple's App store or the Android Appaloosa store. Content on the devices can be managed programmatically via **Vablet**'s content API or through the web admin console.

A significant feature of **Vablet** is that content distributed and managed by the application is not cloud specific. Media can be distributed through **Vablet**'s cloud (Azure by Microsoft), an enterprise's servers, a proprietary cloud, or through a combination of any of these. Content usage and delivery is recorded and a variety of reports can be created to facilitate total organizational compliance.

Through **Vablet ES** enterprise solution, mobile devices can also attach to the secure enterprise components using various technologies such as SharePoint™, Siteminder™ and LDAP. **Vablet ES** also includes a proprietary program API that allows the enterprise to integrate with their existing ERP and back office systems, such as Oracle and SAP, or with services such as Salesforce™.

The **Vablet** core foundation runs on IIS7 and SQL Server 2008. For further flexibility, the company is adding APIs to integrate with Good Dynamics™ and to interface with Documentum™.

Summary

The unprecedented growth of tablet devices has created significant challenges for enterprises. These challenges range from BYOD, to security, to scalability, to usability all within multiple new operating systems. Additionally, the challenge of keeping a workforce productive, while introducing new technologies, has historically been very difficult. A properly designed solution will provide functionality and mitigate this disruption.

Vablet was designed to take advantage of new technologies and provide a complete mobile solution for enterprises today.