



# Technology Brief...

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Research, Analysis, Strategic Consulting

## AT&T Toggles the Competition

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AT&T recently announced Toggle, which enables segmenting an Android device into two distinct personas. This “split personality” allows end user content and apps to be distinctly segregated from corporate apps and especially from comingling with corporate data. With the impact that bring your own device (BYOD) to work is having, and the growing installed base of Android, this capability should be of high interest to enterprises.

The single biggest challenge enterprises face in the BYOD era is how to protect critical corporate assets – not the HW, but the data. There are other “forced” approaches to segregating corporate data assets (like Good Technology that builds a unique lock box with a different UI environment). But that is not what users want. They want an approach that lets them keep the original UI (which is why they bought the device to begin with) and gives them a unified view of data (e.g., one email/inbox view, single calendar view, etc.) while allowing them free access to the apps of their choice. With Toggle, companies get the needed data protection when users are interacting with the corporate apps and data (so they can’t copy and paste to a non secure area, forward via Gmail, or drop into a synched cloud storage app like Dropbox, for example). And the company doesn’t have to worry about managing the end user side of things. It can let the users load anything they want and know that the organizational data is protected. Further, should the company decide to “kill” the device for any reason (e.g., lost device, user leaves company) only the corporate side of the device is erased, leaving the end user content intact. This eliminates the drastic approach of wiping an entire device, including user owned content, a practice many users vehemently object to and may ultimately result in litigation to test its legality.

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We expect the “separation of church and state” (consumer and corporate) to become the defacto methodology for security and compliance on smart devices (phones and tablets) in the next 1-2 years, as companies struggle to maintain control of data leakage issues, and consumer/users assert their independence from heavy-handed corporate governance of their personal devices. The AT&T Toggle approach (powered by Enterproid, which also sells the product direct) is only one step down this path. Other companies are moving in this direction as well with varying approaches, including Balance from RIM for QNX/BBX, 3LM for Android builds from various OEMs, and VMWare. We expect to see additional companies enter this market in the next 6-12 months.

While initially targeted at enterprise users, this approach ultimately has benefits for consumers as well, such as segmented accounts for storefronts (protecting

personal and/or financial information), malware prevention (limiting what malware has access to), independent users accounts segregated from each other (e.g., kids using parent's devices), etc.. Interestingly, Apple does not seem to want to move down this path and it may get left behind in the enterprise if it doesn't. We also don't yet see Microsoft with Windows Phone moving in this direction, although by the time of Windows 8 it may well have done so.

**Bottom Line:** Virtualized environments, whether thru HW/SW combinations (e.g., VMWare, Balance) or SW loads (e.g., Enterpoid) or embedded into base-level systems (e.g., OK Labs, 3LM) is definitely coming to a smartphone or tablet near you. Companies should require this kind of capability as a part of any long range smart device strategy, for the benefits it brings both to the company and the users. Failure to do so will needlessly expose enterprise data to loss and may create mistrust of BYOD among users who will look for a way around undesired restrictions.

## Moto-Rho-la - Solutions in Tablets and Development

There is no doubt that tablets are proving attractive to a wide range of users in the corporate setting. But off the shelf devices do not always acquit themselves well in typical work environments beyond office-focused deployments. Many use cases require higher levels of durability than typical off the shelf units, as well as specialized carriers/mounting, all day batteries, increased levels of security, and specialized input capability (e.g., barcode, RFID, card reader). Motorola Solutions recently launched a new tablet, the ET1, targeted at "working class" use. Building on its long legacy of producing Symbol ruggedized handheld devices it has created an Android-powered tablet with features targeted at specialized industries like retail, manufacturing, distribution, delivery, hospitality, health care, etc., while maintaining many of the strengths and attributes of its consumer-based cousins which have made the tablet so popular.

Even though these enhanced rugged and/or durable devices cost more than an off the shelf device (by as much as 2-3 times depending on options), they nevertheless offer substantially higher ROI (see our report, Handhelds in Search of a Enterprise Class Device for a cost analysis). This class of device is not the "bring your own device" consumer grade smartphones and tablets becoming popular in large organizations. For these work environments, companies must be careful what which device they purchase and from whom. They may stay in use for 3-5 years or more. Investment protection and optimization are important considerations.

Nearly all current ruggedized handhelds are powered by the Windows Mobile operating system, with some slate computers utilizing full Windows. But Windows Mobile has not kept pace with the rapid advances in ease of use of consumer OSes (e.g. Android, iOS, QNX), hence a strong desire by many companies to look at alternatives. We expect this trend to accelerate until Microsoft establishes a true consolidated approach to Windows-powered devices with the advent of Windows 8 but this is still at least 12-18 months away.

Other rugged device manufacturers also are moving into the tablet realm. However, Motorola has gone one step further in its quest to stay ahead of the competition. Understanding that its customers have a mixed-use base (not just tablets, but also handhelds and smartphones on various OSes), it is extending its

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solution by offering a way to easily create and deploy apps across various devices and OSes (e.g., Windows Mobile, Android), thereby offering a form of app investment protection. To this end, it recently purchased RhoMobile, which has a proven HTML5 based cross-platform mobile app creation and management solution supporting multiple devices/OSes. These capabilities, coupled with Motorola's strong device management officering (i.e., Mobility Services Platform) will enable it to move beyond its competitors.

We see the RhoMobile acquisition as a strategic asset for Motorola and one it can leverage to both ease the transition to Android for its existing Windows Mobile installed base, as well as "future proof" created solutions for its devices. In this way Motorola can distance itself from its primary competition (e.g., Intermec, Panasonic). At the same time it is broadening its market appeal with companies deploying other devices by easing migration to a more robust piece of HW, and even supporting apps for casual users on consumer-grade hardware. This will increase the ROI on developed solutions.

**Bottom Line:** It is increasingly important for work-class mobile devices to differentiate and create a complete platform, including HW, development, security and manageability. Further, it's important to enable an easy migration from consumer-grade devices, as well as extend the solution to casual users. With its recent tablet release and its acquisition of RhoMobile, Motorola Solutions has more components of a complete solution to offer, both directly to enterprises and to its ISVs. With its array of rugged and durable devices and form factors as well as solution services it will be hard for its competition to catch up.

## Deploying Mobile Apps – Lots of Choices

One of the most important (and often most confusing) choices for companies to make when determining their mobile strategy is how to create and deploy apps to mobile devices. There are numerous options. Should they all be cloud based and accessed via a browser? Should they have a custom designed code based on a particular device? Or should they be something in between? This is no trivial exercise, as our research indicates that a single mobile app can cost \$250K or more to deploy.

We believe companies can survive the mobile app strategy confusion by taking some concrete steps. First, companies should determine what kind of app makes sense from an ROI perspective for the business (and not just what users are requesting). Are the best apps to deploy office apps, communications (e.g., IM email), social apps, personal productivity apps, extensions of existing back office apps (e.g., CRM, ERP)? And importantly, are the mobile apps already available either from the incumbent app supplier or in an app store, or will they need to be custom developed?

Next companies should evaluate the best app technology for their needs. They should assess the needs of each app based on user input, but also on required functionality and especially performance. In most companies, a single choice will not be right for all apps or for all users. The various technologies available include native built, browser based, SaaS accessed, HTML5, Java, or potentially some other technology. Further, various vendors offer development environments and/or tools which can expedite the overall development process and these should be evaluated. Finally, companies should assess how the apps will be delivered to users, such as web access/loading, private app store (a growing requirement for many enterprises), push delivery over the air (OTA) if the device allows, or even

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## Recent Research

Contact us to obtain any of the following research:

### 15 Emerging Technology Trends

- Highlights our key emerging trends for the next 2-3 years

### Commentary and Analysis

- Consumer and Enterprise 2014/2015 Tablet Market Share Predictions
- Nokia's New Phones- Not Raising The Bar Enough?
- Intel and Google - Who Needs Who?
- Microsoft's Can't Lose Mobile Strategy
- Dramatic Changes Coming in Endpoint Security

### Technology Insights

- Mobile Chip Wars - The Changing Competition
- BlackBerry's Jam and RIM's Transformation

### Technology Reports

- Keeping Notebooks Past Their Prime: A Study of Failures and Costs

### Whitepapers

- A Heuristic Approach to Mobile Security
- MDM- Where Do We Go From Here?



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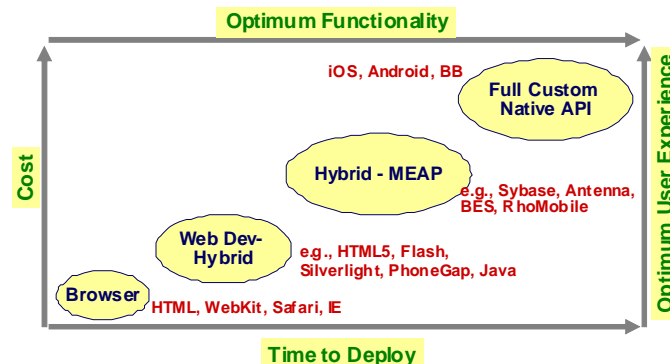
Weighing all these factors can be daunting. Based on our research working with many enterprises in formulating a mobile strategy, we recommend companies focus on four key vectors in determining the best approach. These include:

- Cost
- Time to Deploy
- Optimum Functionality
- Optimum User Experience

Brevity of this report does not allow an in depth assessment of each area. But effectively assessing these vectors will determine the best approach for mobile development/deployment and the proper products/technology vendors to select (see figure 1 below).

**Bottom Line:** Companies should not automatically assume one method of mobile app development and deployment is best for all users or solutions. They must assess their mobile app strategy based on a number of factors if they are to achieve a true ROI while maximizing user productivity on mobile devices. Failure to do the proper analysis will negatively impact mobile deployment and push users to find alternative (and often inferior and/or insecure) methods of access.

Figure 1: Mobile App Development/Deployment Choices



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## About J.Gold Associates, LLC.

J.Gold Associates provides advisory services, syndicated research, strategic consulting and in-context analysis to help its clients make important technology choices and to enable improved product deployment decisions and go to market strategies. We work with our clients to produce successful new product strategies and deployments through workshops and reviews, business and strategic plan coaching and reviews, assistance in product selection and vendor evaluations, needs analysis, competitive analysis, and ongoing expertise transfer.

J.Gold Associates provides its clients with insightful, meaningful and actionable analysis of trends in the computer and technology industries. We have acquired a broad based knowledge of the technology landscape and business deployment requirements, and bring that expertise to bear in our work. We cover the needs of business users in enterprise and SMB markets, plus focus on emerging consumer technologies that will quickly be re-purposed to business use.

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