



# Technology Brief...

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Research, Analysis, Strategy, Insight

## Identity in the Mobile Age

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The nature of logins and identifying users for the most part is still stuck in the last century, when user name and password was the primary way (perhaps the only way) users could get into the systems they needed to do their work. In most organizations, this is still the case (with the few exceptions of using multi-factor authentication tokens like RSA, etc.). But the technology has changed dramatically over the past few years, with a literal plethora of new devices being deployed by end users. Companies can no longer afford to rely on antiquated methods of authentication and identity.

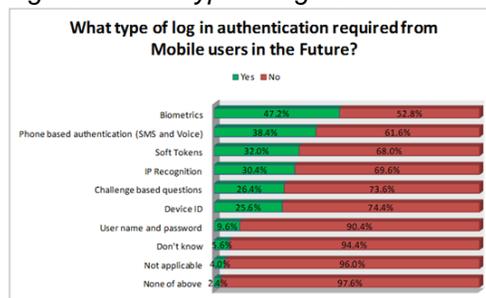
With so many new mobile devices being deployed, often with each user having regular access to multiple devices, it is imperative that companies shift focus from a user/password mentality to one of dynamic multi-factor authentication. Multi-factor authentication must take into account multi-device users with multi-identities, each of which needs to be authenticated. Determining who the user is includes what devices are being used, what location the user is at, what the user is wearing (e.g., eyeglasses, jewelry) what the user looks like, sounds like, etc. In the age of conceptual computing, identity and authentication take on a whole new meaning, with more human-like recognition through visual cues, sound detection, biometrics, etc. Identity must migrate from what the user knows (password) to how the user functions (e.g., heart rate pattern) or unique characteristics (e.g., voice, skin, retina, etc.). While this may sound like distant future, it's not as most of the technology is currently available (but often difficult to implement). Figure 1 indicates what companies told us on a survey they would use in the near future

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Figure 1: What type of login authentication will be used in the future?



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The world is rapidly moving to wearables (e.g., smart watches, heads up glasses, body monitor) and to embeddables (e.g., sensors, personal appliances). The

adoption of these devices, with each user having more than one, greatly expands the ability to rapidly and highly securely identify and authenticate that particular user. These devices which are easy to acquire, low cost, and pervasive, will each on their own create a light weight authentication. But when combined/aggregated in an identity management system, it creates a very strong authentication. This requires changing to an “aggregated” identity model (knowing who you are by what you have and what you do) and away from simpler schemes invented when systems were much less capable and “sensory”.

Because there will be a new generation of tools required to make this happen, there is a battle brewing over who owns identity. Microsoft, Google and others are all positioning to be the identity manager of choice, since they believe this will give them a competitive advantage. Indeed, for many years now Microsoft’s dominant position with Active Directory has given it a major advantage in the enterprise by providing services that apps could take advantage of (and Microsoft apps often did better at that than others). Google and others trying to be the de facto identity authority threaten this position and Microsoft is trying very hard to make sure it is the identity management authority of choice in the enterprise. Smaller market share players like RSA, Cisco, Oracle, IBM, etc., have their own versions of identity management, but it’s unlikely they will be able to displace the major players like Microsoft and Google in a big way – rather we expect that they will fit into (sometimes large) niches.

**Bottom Line:** Enterprises must begin to implement an updated identity management and authentication strategy taking into account the changing nature of identity and the changing landscape of identity management tools. Within the next 2 years, the process of identifying and authenticating users and their access points will change significantly, but not without some pain along the way. Companies should check with their current vendors to see how they plan to move to this next generation of identity management, and should supplement (or replace) with technologies that fill in the gaps.

## Enterprise Mobile Managed Services (EMMS)

As the mobile market matures, and companies no longer want to deal with the hassle of BYOD and shadow support on their own, outsourced mobile management services are becoming attractive. Mobile use is a critical success factor for most companies, but management and support is not a priority investment area. Indeed, many enterprises continue to struggle with mobile unless they make big investments in mobile management and support. By leveraging the infrastructure that an EMMS provider has in place (e.g., scalable device management, provisioning, app delivery, support services, cost management), and the cross platform expertise they have available to support multiple devices/types, getting rid of the burden of device management, support and provisioning are becoming much more attractive to companies. This follows along the same path as data center outsourcing, client/server outsourcing and web outsourcing – all relatively mature technologies in markets that can take advantage of the leveraged resources that outsourcers can bring to bear.

So which vendors can move into this higher value market? Some of the smaller MDM/EMM vendors are already providing some of the services needed. And clearly the larger mainstream players (e.g., IBM, HP, Dell) see this as an opportunity. Many midsize players that started out in related fields (e.g., Tango in the TEM space) also have the resources and business model in place to make this work. But so far, no companies have made a substantial impact to take advantage

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of this potential growth market area.

We expect to see a dramatic uptake of EMMS over the next 2 -3 years, growing from a market that accounts for <5% of total mobile revenues today, to 15%-25% in the next 3-4 years. And although many service providers will attempt to move into this space, we expect only those with a firm grip on the challenges that mobile offers to be successful. General outsources do not have the necessary expertise to make this attractive to enterprises, or to keep end users satisfied. But the continued tightening of resources (both monetary and physical) in most IT organizations, coupled with the need to move into more advanced next generation technologies (e.g., IoT, VR, analytics, etc.), will push many companies to move to an outsourced approach, thus deferring to an operations expense (OpEx) rather than a capital investment (CapEx).

We expect to see some of the current EMM vendors who are feeling the heat of market consolidation and thinning margins move into this space (e.g., MobileIron, Citrix). Offering services is different than offering products, even though the companies can often leverage their own technology to advantage. But this transition may also be the only viable way for some of these vendors to survive longer term.

**Bottom Line:** We expect to see a healthy market emerge for enterprise-grade mobile management services, beyond the limited services offered today. The market will grow very competitive over the next 2-3 years. However, companies that consider such services would do well to be cautious in choosing a supplier. Although obtaining a fixed cost per user per month/year is attractive, finding a company that is stable and in it for the long haul might be challenging.

## The (Digital) Natives are Restless

The next generation of IT workers and users will be fully in place in the coming decade as older workers gradually retire. Indeed, Millennials will make up greater than 50% of the workforce in the next several years. And these folks, who grew up in a Digital-First world, are being followed closely by complete digital natives who have never know what it's like to be without Facebook, smartphones and Internet everywhere. What does that mean to the way we interact with corporate systems and what companies need to change to stay relevant to these new workers??

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*“...The next decade will see dramatic shifts in how users interact with corporate systems, and how those systems are created, presented and managed. It's not too soon for companies to be strategizing about how this new model will be implemented.....”*

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To previous generation workers, being social means meeting at the coffee pot to discuss their weekend. To the new generation of workers, being social means continual contact with their co-workers and friends while the activities of their weekend are happening. It's a different mindset. And they bring this mindset to the way they expect to interact at work. Not only are they accustomed to being in continuous contact, but they are also accustomed to being able to change very quickly from any app or access point they want – or wish to eliminate. Such is the world of app stores and multi-device ownership.

For future workers, social is key. They won't easily adapt to older work styles. Further, any user interface or experience that is not appealing will be rejected. And some may curse the “dumbing down” of writing skills as a result of texting and Twitter, but as a result work styles that require short, to the point communications will prevail.

## Recent Research

Contact us to request the following research reports:

### Market Studies

- **The State of Enterprise Mobile Management (EMM) 2015**
- **Mobile E-Commerce: Friend or Foe?**

### 2015 Emerging Technology Trends

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

### Commentary and Analysis

- Apple and IBM in Enterprise: Joined at the Apps
- BlackBerry Secures Its Voice

### Technology Reports

- Replacing Enterprise PCs: The Fallacy of the 3-4 Year Upgrade Cycle
- Keeping Notebooks Past Their Prime: A Study of Failures and Costs

### Technology Insights

- Mobile Chip Wars - The Changing Competition

### Whitepapers

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

Enterprises should be aware of where this market is going if they want to stay productive when the new crop of workers begin to dominate. Current mobile models are a precursor to where the market is going. Indeed, rapid change, user choice, non-uniformity of apps and systems will all play a major role in systems design and utilization to keep the new workers productive in the style to which they are accustomed. That means personal customization, choice and tailored systems to get around the one size fits all model of most corporate systems of today. It also means that data acquisition and utilization will change from a depository model to an aggregation model as useful data will no longer only be in one place. This presents significant problems to the current typical app model of a singular data set to analyze and interact with.

Apps will similarly go granular and workspaces will be aggregations of what users want most, thus allowing users their preferred work styles. A fixed "one size fits all" suite (e.g., Microsoft Office) will not sit well with the next generation of workers. The new generation of aggregated apps will be built around public APIs and create an interchange, making the apps talk to each other and exchange whatever configuration and data that the user requires. But standardization in the emerging world of APIs will not come easily or quickly. And without the use of standardized API schemes, the cloud will have a hard time providing all the needed services in a universal manner for the demands of the new user model. It also means API management services will be key players in the interaction of future apps with each other and with end users.

**Bottom line:** While it sounds like a long time, the next decade will see dramatic shifts in how users interact with corporate systems, and how those systems are created, presented and managed. It's not too soon for companies to be strategizing about how this new model will be implemented. As for most companies, it will be a decade long process. But it must happen for companies to acquire and retain next generation workers. Companies that don't make the shift will be strategically and negatively impacted, and may even fail.



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*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.*

*We can provide your company with a trusted and expert resource to maximize your investments and minimize your risk. Please contact us to see how we can help you.*