

For: CIOs

Workforce Personas And The Mobile App Gap

by Ted Schadler, November 4, 2013

KEY TAKEAWAYS

The Mobile Mind Shift Drives An App Gap

Almost half the information workforce carries a smartphone, and 18% tuck a tablet under their arm when they walk into work every day. But this leads to the rise of a mobile “app gap” when people want applications on a mobile device but find that those apps aren’t available.

Use Workforce Personas To Understand What’s Going On

Mobile professionals want every app, but particularly the apps that keep them productive from anywhere. Mobile practitioners, on the other hand, need fewer apps, with a focus on those that help them take action while out and about.

Use BYO To Prioritize Productivity Apps: Start With File Sync And Share

Mobile professionals fill the app gap by using bring-your-own (BYO) personal apps. Turn this into a strategy by monitoring the apps that people use and then provide business-ready alternatives. Start with file sync and share, as the demand for this productivity app is clear and present.

Operationalize Personas With A Workforce Technology Assessment

Workforce personas are a useful tool when developing a mobile strategy. But they are also useful for moving beyond one-size-fits-all in workforce programs for devices, software, information security, and knowledge competency. Create your own personas to improve your own workforce programs.



Workforce Personas And The Mobile App Gap

Productivity Apps, Process Apps, Or Both? Personas Help You Decide

by [Ted Schadler](#)

with [Khalid Kark](#), [Philipp Karcher](#), and Nancy Wang

WHY READ THIS REPORT

The mobile mind shift that people are experiencing at home — to expect everything on a mobile device — drives their mobile expectations at work as well. IT is slow to respond with mobile business apps, so employees plug the “app gap” on their own. Some bring in productivity apps like Dropbox or Evernote or Quickoffice, and others focus on process apps like Smartsheet or TripIt. To find out which apps your employees really need, start by segmenting your workforce into different groups based on their need for mobility and the kind of work they do. We have updated our workforce personas with the latest Forrsights workforce data to highlight the differences between mobile professionals that need productivity apps and mobile practitioners that need process apps. Use these personas to drive your business case and funding discussion for plugging the app gap.

Table Of Contents

- 2 The Mobile Mind Shift Drives An App Gap**
Plug The App Gap By First Analyzing Who Is Going Mobile And Why
- 4 Workforce Personas Shed Light On The Mobile App Gap**
- 9 Professionals Need Productivity Apps; Practitioners, Process Apps**
Mobilize The Productivity Apps That Mobile Professionals Bring In On Their Own
Partner To Build A Business Case For The Process Apps Mobile Practitioners Need
Borrow From Mobile Process Improvement To Fund Mobile Productivity Apps
- 11 Operationalize Personas With A Workforce Technology Assessment**
- RECOMMENDATIONS**
- 13 Pitfalls To Avoid When Creating Your Own Workforce Personas**
- 14 Supplemental Material**

Notes & Resources

Forrester recommends the following reports.

Related Research Documents

[The Forrester Wave™: File Sync And Share Platforms, Q3 2013](#)

July 10, 2013

[The Mobile Mind Shift Index](#)

April 19, 2013

[2013 Mobile Workforce Adoption Trends](#)

February 4, 2013

[Harness The Power Of Workforce Personas](#)

December 9, 2009

THE MOBILE MIND SHIFT DRIVES AN APP GAP

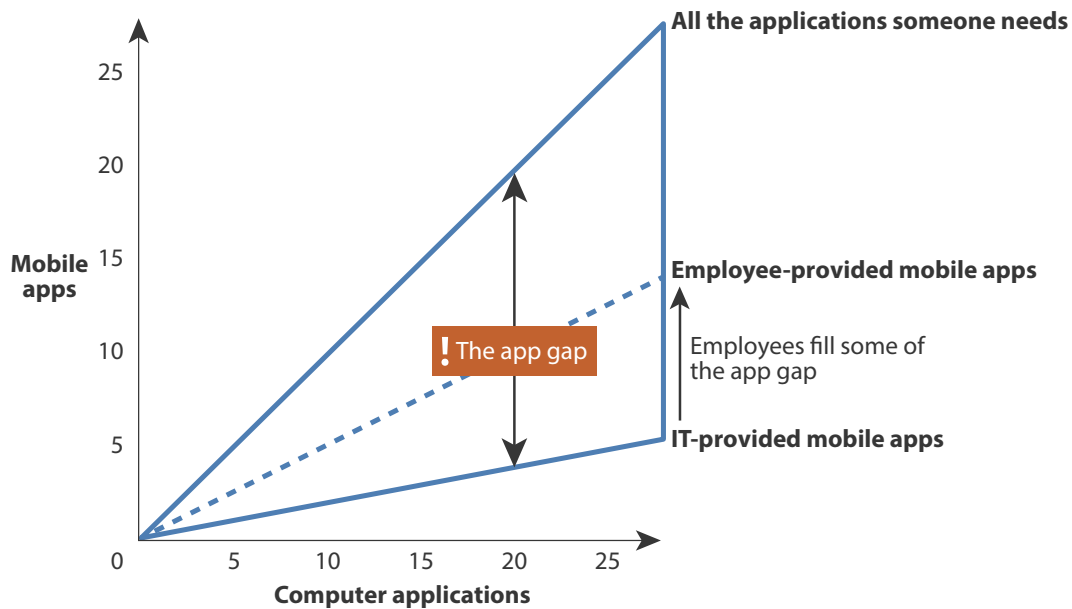
The mobile mind shift is the expectation that I can get what I want in my immediate context and moments of need. It's rampant at home and at work. Almost half the information workforce carries a smartphone, and 18% tuck a tablet under their arm when they walk into work every day.¹ This adoption is astounding, particularly when you consider that in 2010, only 18% of employees used a smartphone and nobody had a proper tablet. Bringing a mobile device to work has become as natural as grabbing a cup of coffee to kick off the day. But it also leads to the rise of a mobile “app gap” that Forrester defines as:

When people want applications on a mobile device but find that those apps aren't available.

IT needs to plug the app gap that results from people wanting their desktop applications on their mobile device — or employees will fill it themselves:

- **The mobile mind shift at home leads to huge changes in employee expectations.** At home, 22% of consumers have already undergone a mobile mind shift and expect services that help them take action at any time on any device.² Vendors get this: They give their best stuff to consumers first, hoping that they'll bring the technology to work. Apple and Dropbox and Google target consumers first and businesses second. New-generation software companies exploit the mobile mind shift with freemium business models that target your employees at home and at work.
- **The mobile mind shift at work creates a mobile app gap that employees are happy to plug.** Employees are also undergoing a mobile mind shift. Already 29% of global information workers work from multiple locations on multiple devices with many applications. While there is a wide app gap between what IT supports on the desktop and what it supports on tablets or smartphones, employees blunt the impact of missing apps by bringing in their own: 25% do so globally (see Figure 1). Employees' uptake of Dropbox and Evernote and Skype go a long way toward plugging the app gap left by the lack of Microsoft Office on most mobile devices.

Figure 1 Mobile Devices Create An App Gap That Employees Fill With Bring-Your-Own Apps



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Source: Forrester Research, Inc.

Plug The App Gap By First Analyzing Who Is Going Mobile And Why

It's time to stop fretting about the rise of BYO apps and begin a program to mobilize the applications that will bring the most benefit to your customers and employees. Giving employees email on personal devices does not begin to do it. It's barely a stopgap to buy you time to execute a proper mobile strategy. Ultimately, you will need to give at least two-thirds of your employees most of their office toolkit on a mobile device. But which apps on which devices? And what apps do employees *need* most? To begin the pivot on your mobile strategy, start by answering two fundamental questions:

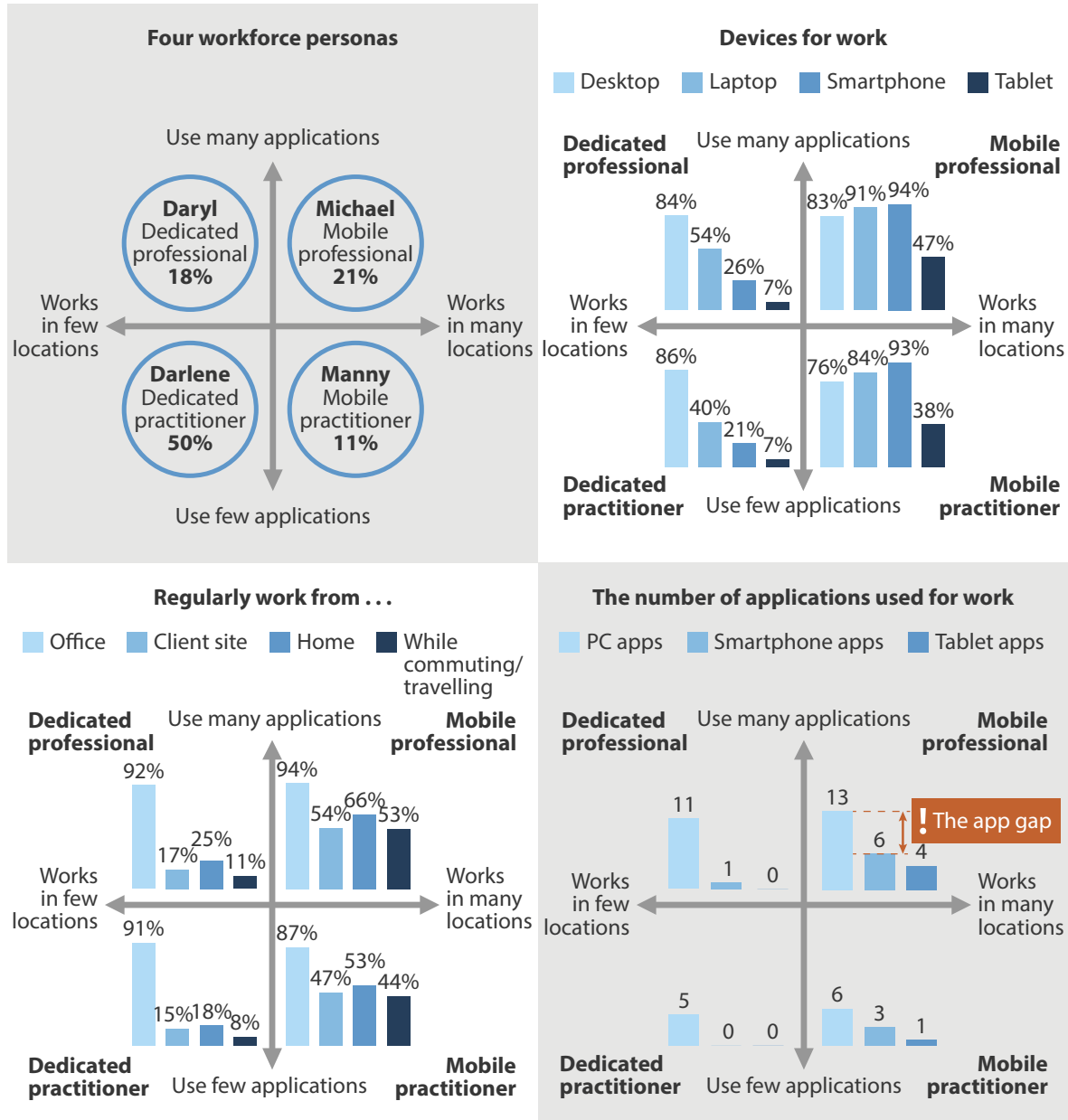
1. **Who is going mobile?** Information workers in marketing or product development have very different mobile needs than salespeople or field service staff. The first question to answer is who is going mobile? Armed with that information you can begin to formulate a strategy and a business case for who needs which applications and why.
2. **Why are they going mobile?** Are employees going mobile to fulfill a business process such as field service or direct sales? Or are they going mobile to be productive and keep things moving along from any location? The answer to this question will help you prioritize the applications different employee groups most need.

WORKFORCE PERSONAS SHED LIGHT ON THE MOBILE APP GAP

To answer those questions, we have used Forrsights Workforce Employee Survey data from 4,938 information workers in North America and Europe to update our four workforce personas (see Figure 2):³

- **Michael, a mobile professional.** Michael, representing 21% of the information workforce, is the vaunted power user and very likely to be an executive or manager in sales and marketing (see Figure 3-1). Michael plugs his app gap with vigor: 59% of mobile professionals paid for the smartphone or tablet they use for work, and 25% buy their own mobile apps. A quick estimate suggests that Michael's app gap would be twice as big if he didn't use personal productivity apps to get work done.
- **Manny, a mobile practitioner.** Manny, a smaller 11% of the information workforce, is a practitioner, focused on getting a smaller number of things done efficiently (see Figure 3-2). Manny's jobs span nursing, shift managers, and field salespeople. Manny's app gap is half the size of Michael's, but it's harder to plug with personal apps. He needs full IT support for the mobile process apps he uses.
- **Daryl, a dedicated professional.** Daryl, 18% of the information workforce, is a pragmatic, practical employee, often working in finance or human resources (HR) (see Figure 3-3). She spends much more time on her desktop computer than any other segment. Daryl is not completely deskbound, though: She wants a smartphone so she can collaborate and keep things moving along from home. Her app gap is not big today, but it will grow as she relishes her newfound freedom.
- **Darlene, a dedicated practitioner.** Darlene, 50% of the information workforce, uses technology because she has to (see Figure 3-4). Darlene regularly works in the office in government, healthcare, or as a customer service rep. Some Darlenes do have an app gap, particularly the 17% of them that pay for their own mobile device for work. Darlene will need more IT support as her job starts to break free from a counter or desk and move out into the physical world of customers.

Figure 2 Workforce Personas Are A Valuable Communications And Planning Tool



Base: 4,938 North American and European information workers

Source: Forrsights Workforce Employee Survey, Q4 2012

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Source: Forrester Research, Inc.

Figure 3 Meet Your Workforce Personas

3-1 Mobile professionals look for everything on their mobile device



Michael
Mobile professional

"I want to carry my office in my pocket."

Who are they?

- Most likely to be senior staff
- Common in high-tech and pharma industries
- Found in IT and in management jobs
- Average age: 40

How do they work?

- Regularly work from three locations
- 54% work from a client site regularly
- 64% use the Internet for work from home
- 88% use collaboration tools to get work done

How do they use their devices?

- 94% use a smartphone, and 47% use a tablet
- 56% use a smartphone at least an hour a day
- 59% paid for either their work smartphone or tablet

What applications do they use?

- Regularly use 13 PC apps, six smartphone apps, and four tablet apps
- 52% use file sync and share on a smartphone
- 55% use a job-specific business application

What else do they need?

- Focus on the productivity and collaborative apps they use every day
- Plug the biggest app gap: file sync and share
- Fund apps through process improvement

Figure 3 Meet Your Workforce Personas (Cont.)

3-2 Mobile practitioners need a few process apps



**Manny
Mobile practitioner**

"I don't work at a desk, but I need applications to get things done."

Who are they?

- Often individual contributors
- Common in services and retail industries
- Found in sales and in engineering jobs
- Average age: 39

How do they work?

- Regularly work from three locations
- 47% work from a client site regularly
- 55% use the Internet for work from home
- 40% use collaboration tools to get work done

How do they use their devices?

- 84% use a laptop; 93% use a smartphone
- 48% use a smartphone at least an hour a day
- 66% paid for either their work smartphone or tablet

What applications do they use?

- Regularly use six PC apps, three smartphone apps, and one tablet app
- 17% use file sync and share on a PC
- 16% use a job-specific business application

What else do they need?

- Give them BYO support so they can use the devices they are comfortable with
- Re-engineer processes for mobile-first
- Build on user-friendly, task-oriented apps

Figure 3 Meet Your Workforce Personas (Cont.)

3-3 Dedicated professionals would value going mobile



Daryl
Dedicated professional

"I would like to be able to take my work home with me."

Who are they?

- Usually individual contributors
- Common in energy, mining, and manufacturing
- Found in clerical, administrative, and IT jobs
- Average age: 43

How do they work?

- Regularly work from one location
- 82% work in an office at least four days a week
- 56% have never worked from home
- 78% use collaboration tools to get work done

How do they use their devices?

- 84% use a desktop for work
- 60% use a desktop 4 or more hours per day
- 26% use a smartphone, and 7% use a tablet

What applications do they use?

- Regularly use 11 PC apps, one smartphone app, and no tablet apps
- 31% use file sync and share on a computer
- 54% use a job-specific business application

What else do they need?

- Focus on collaboration tools
- Support email attachments on BYO devices
- Support them like mobile professionals

Figure 3 Meet Your Workforce Personas (Cont.)

3-4 Dedicated practitioners are an untapped mobile process resource



Darlene
Dedicated practitioner

"I use technology at a desk because I have to."

Who are they?

- Usually individual contributors
- Common in manufacturing and retail
- Found in customer service and healthcare
- Average age: 43

How do they work?

- Regularly work from one location
- 79% work in an office at least four days a week
- 74% have never worked from home
- 27% use collaboration tools to get work done

How do they use their devices?

- 86% use a desktop for work
- 54% use a desktop 4 or more hours per day
- 21% use a smartphone, and 7% use a tablet

What applications do they use?

- Regularly use five PC apps, no smartphone apps, and no tablet apps
- 6% use file sync and share on a computer
- 21% use a job-specific business application

What else do they need?

- Don't need a license for a full productivity suite
- Be prepared to mobilize more processes
- Meanwhile, upgrade platforms for mobile readiness

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Source: Forrester Research, Inc.

PROFESSIONALS NEED PRODUCTIVITY APPS; PRACTITIONERS, PROCESS APPS

The app gap starts to come into focus: Michael, the mobile professional, wants every app, but particularly the apps that keep him productive from anywhere; Manny, the mobile practitioner, needs fewer apps, those that help him take action while out and about. So which group and which apps do you mobilize first? The personas can help you decide how to proceed:

- **Mobile professionals need productivity apps, so watch how they plug the app gap, then follow.** The rise of Dropbox at work signals just how important files on any device are to mobile professionals. So implementing a business-ready file sync and share solution — perhaps even Dropbox itself — is a simple decision to make. It will give people the tools to be productive and minimize the risk of information loss and possibly cyberattack exposure. That's a powerful argument for increasing the investment in mobilizing productivity applications: It's insurance against loss. But how much risk is there?
- **Mobile practitioners need process apps, so propose a process re-engineering program.** In a typical example, the sales group at one pharmaceutical company bought 15,000 iPads

and moved to Google Apps and salesforce.com, despite an official policy not to use cloud applications. This is a classic mobile practitioner example: Sales process apps are too important not to mobilize, and sales executives won't bother to wait for IT to deliver that solution. That also gives CIOs a path forward: Fund mobile process apps by linking them to business outcomes.

Mobilize The Productivity Apps That Mobile Professionals Bring In On Their Own

We have already seen how many mobile professionals are willing to use unsanctioned personal apps to get productive work done. This insight gives rise to a funding strategy to plug the app gap with business-ready productivity apps; follow where your employees are leading you:

- **Start with file sync and share because employees already know the business value.** It's a no-brainer to provide a business-ready file sync and share solution like Box, EMC Syncplicity, IBM SmartCloud Connections, or any of the other 16 alternatives that we recently evaluated, including Dropbox itself.⁴ Pick one that best meets your architectural constraints, but don't wait too long or employees will fall in love with their personal favorite instead.
- **Put in place a program to upgrade major applications for mobility over the next five years.** Five years from now we won't even consider implementing a new solution that isn't designed for mobile work. To get us closer to the real nature of work — to be unshackled from the desk — begin to upgrade every key application with the architecture and goal of mobile-first, what we call mobile engagement. For example, your note-taking application should work as well on a smartphone as it does on a tablet or home computer.
- **If you're feeling courageous, consider a one-time pitch to the board for a massive investment.** Workforce personas can arm you with the facts you'll need to make a rational pitch for investment based on real numbers of employees, applications, and business benefits. At least one global bank has made this decision, when their board approved a \$400 million investment over five years. Now, the goal of the corporate CIO is to give financial advisors and investment bankers the same tools that customers already have.

Partner To Build A Business Case For The Process Apps Mobile Practitioners Need

Many direct sales organizations and business-critical field service organizations are already going outside IT to mobilize their field teams. And it won't be long until business leaders in customer care, field service, and product maintenance, for example, want to push process tools into their employees' hands. It wasn't that long ago the rental car staff or flight attendants were device-free. They are now device-driven as Delta's deployment of Nokia smartphones to 19,000 flight attendants demonstrates.⁵ As CIO, you can partner with the process owners to implement these process apps and platforms. Include these things in your business case for mobile practitioners:

- **Getting a small increase in process throughput translates to a big return on investment.** At one distributor of Banner Engineering's products, the sales team reports that it can do between 10% and 20% more sales calls in a typical week because team members have to process tools to be effective on the fly. They can easily prepare for and squeeze in one more meeting because their tablet has the product sheets, view of the customer, and follow-up tools. As a bonus, they no longer have to do that preparation and follow-up admin work at night.
- **Remember that your new mobile practitioners are now also information workers.** Giving a field service rep a modern mobile device to help schedule, route, and log a field visit has the collateral benefit of giving them a tool to collaborate and communicate. This turns them into information workers — able to fully participate in your firm's work. The mobile practitioners at one Irish beer distributor are getting their first email account now that they use an Android tablet rather than a specialized handheld to schedule tap cleanouts and pub visits.
- **Identify opportunities for process re-engineering — it is expensive and worth it.** Has the process itself been designed to avoid manual steps or lags between data capture and data entry? Is the critical information available on the mobile device? Are the databases and dispatch processes ready to serve the needs of the person in motion? Cloud Sherpas rode around with drivers of trucking company Quality Distribution and worked with headquarters-based staff to anticipate the impact on deliveries and dispatch before building the app and then adjusted as needed to overhaul the delivery process.

Borrow From Mobile Process Improvement To Fund Mobile Productivity Apps

These two funding paths don't have to be completely separate, of course. There is no sleight of hand required to link process improvement with productivity apps. At the large pharmaceutical company, the sales team made a big investment in Box for file sync and share for mobile practitioners, an investment that IT was immediately able to extend to other high-need mobile professionals.

This linkage is also a good way to keep mobile work at the top of the conversational to-do list. When people are willing to invest out of a business budget to improve a direct business outcome, then piggyback on that investment to fund an email upgrade or an extension to a basic app like collaboration and content access.

OPERATIONALIZE PERSONAS WITH A WORKFORCE TECHNOLOGY ASSESSMENT

We have analyzed mobility and application use to create these personas. It turns out that these personas also give you information you can use in other places, and you can always create custom personas that reflect other things you care about such as user experience, security risk, and role-based provisioning. Since 2010 when we first introduced workforce personas, we have done two dozen workforce technology assessments for customers working on these tough projects:

- **A global media company uses a workforce technology assessment to design a service catalog.** Mobile devices were the trigger for an employee survey to understand what to include in the service catalog for different groups. The data analysis and conclusions had far-reaching implications for more fundamental things such as the service model, the provisioning process, even the budgeting and organization: by employee group rather than technology component.
- **A commercial bank conducts an employee survey to find the root cause of dissatisfaction.** This organization is making big decisions about mobility, communications and collaboration, and social applications, and it wants to first understand the current user experience and how to improve it. A workforce technology assessment helps it dig deeper into the things that cause problems and also surface solutions that could improve the workforce technology experience.
- **A global food products company is measuring employees' knowledge competency.** How employees learn, share, and collaborate lie at the heart of their business contribution. For companies seeking to grow or innovate, these knowledge behaviors and tools can limit or promote success. The workforce technology assessment helps a COO or head of HR identify the barriers to knowledge access, capture, and sharing and build support for the technology investments and executive behavior changes needed to improve a firm's knowledge competency.
- **A large insurance company analyzes its mobility information risks.** The survey of agents and employees revealed that the risk lay with the most senior staff and with the sales teams generating the most business. Security is always a big concern in a technology shift, but mobile devices raise the concern level very high. A workforce study can shed light on specifically where the risks lie: file management, access to the network, unsecured devices, or other. The analysis helped the firm craft the right approach to mobilizing its information assets and apps at the lowest possible risk.
- **A small investment bank performs a study to better negotiate its Microsoft Office license.** If people aren't using the full features of a software product, you may have an opportunity to scale back the licenses you buy. Tracking people's application use is one way to do that, but that approach leaves out specifics around why people are or are not using an application, what features they rely on, and what devices are most important to their work. A workforce technology assessment helped this bank break down application use into specific groups and value.

RECOMMENDATIONS

PITFALLS TO AVOID WHEN CREATING YOUR OWN WORKFORCE PERSONAS

The mobile workforce personas give you a lot of data and analysis that you can immediately apply to your own situation. But as CIO, you may wish to analyze your own workforce needs in order to build support for that productivity platform refresh or that process re-engineering. Forrester has done more than two dozen surveys to assess how employees use technology. We've identified pitfalls to avoid and recommend that you:

- **Link the survey to a big investment or workforce challenge.** There's little motivation to analyze what employees are doing and what they need unless you are about to embark on a major investment or culture change. The right time for a workforce technology assessment is prior to a strategic planning exercise: to use data to shed light on what's going on and give guidance on how to fix it.
 - **Make sure that business leaders will benefit from this investigation.** The head of sales or product engineering or trading will support a workforce technology assessment if there's something valuable coming out of it. So be prepared to explain how you will use the data to improve the technology toolkit or the business productivity of employees.
 - **Get executive support upfront before attempting to survey employees.** Companies are often reluctant to bother employees with yet another survey. You can mitigate this by surveying only a "representative sample" of employees, i.e., just enough to get you the data you need. Practically, this means getting at least 1,000 responses so you can drill down into subgroups and still have a meaningful number of respondents. This often means you need the support of HR and sometimes even the president or CEO.
 - **Make sure you have or can get the survey and quantitative skills you'll need.** Designing great survey questions that give you data you trust is harder than it looks. Often your marketing or HR teams will have experience and skills to conduct a large-scale survey. But if not, then you'll want to look for expertise elsewhere. Otherwise, you may fail to get the appropriate information or find it hard to trust the results, which undermines the value of the data and the analysis.
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SUPPLEMENTAL MATERIAL

Methodology

Forrester's Forrsights Workforce Employee Survey, Q4 2012, was fielded to 9,766 information workers located in Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Japan, Malaysia, Mexico, the Philippines, Russia, Singapore, the UK, and the US from small and medium-size business (SMB) and enterprise companies with 20 or more employees. This survey is part of Forrester's Forrsights for Business Technology and was fielded during September 2012 and October 2012. Toluna fielded this survey online on behalf of Forrester. Survey respondent incentives include points redeemable for rewards, as well as sweepstakes entries.

Each calendar year, Forrester's Forrsights for Business Technology fields business-to-business technology studies in more than 17 countries spanning North America, Latin America, Europe, and developed and emerging Asia. For quality control, we carefully screen respondents according to job title and function. Forrester's Forrsights for Business Technology ensures that the final survey population contains only those who use a PC or smartphone at work for at least 1 hour per day. Additionally, we set quotas for company size (number of employees) and job function as a means of controlling the data distribution. Forrsights uses only superior data sources and advanced data-cleaning techniques to ensure the highest data quality.

ENDNOTES

- ¹ Source: Forrsights Telecom And Mobility Workforce Survey, Q2 2013.
- ² Six years into the smartphone transition, customers are making a mobile mind shift. The shifted customer expects that any desired information or service is available on any appropriate device, in context, at their moment of need. To analyze how far people have shifted, we created the Mobile Mind Shift Index (MMSI), which segments people into six categories: Disconnecteds, Dabblers, Roamers, Adapters, Immersers, and Perpetuals. Companies whose customers have above-average MMSIs and who have more than 35% Adapters, Immersers, and Perpetuals must move urgently to deliver on their customers' mobile expectations. You can use the tools in this report to analyze your own customer base and determine how much to invest, how quickly, in meeting mobile expectations. See the April 19, 2013, "[The Mobile Mind Shift Index](#)" report.
- ³ Workforce personas are a simple technique borrowed from consumer market research to help IT pros characterize and profile the needs of these different employee segments. Harness workforce personas to save money on the next rollout of Microsoft Office, anticipate adoption barriers for workforce technology, and increase satisfaction with advanced collaboration or mobility tools. The end game? Persona-driven provisioning. See the December 9, 2009, "[Harness The Power Of Workforce Personas](#)" report.
- ⁴ In Forrester's 26-criteria evaluation of file sync and share vendors, we identified, researched, analyzed, and scored products from the 16 most significant solution providers in this market: Acellion, Acronis, AirWatch, Alfresco, Box, Citrix, Dropbox, Egnyte, EMC, Google, Hightail (formerly YouSendIt), IBM,

Microsoft, Novell, salesforce.com, and Watchdox. We scored factors like mobile support, security, links to systems of record, organizational commitment, market experience, and deployment architecture to give you the decision tools to create the right shortlist for your particular environment and scenarios. See the July 10, 2013, “[The Forrester Wave™: File Sync And Share Platforms, Q3 2013](#)” report.

- ⁵ Source: “Delta Streamlines In-Flight Customer Service with New Windows Phone Handheld Devices for Flight Attendants,” Delta Air Lines press release, August 22, 2013 (<http://news.delta.com/index.php?s=43&item=2084>).

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« CAROL ITO, client persona representing CIOs

