

GIGAOM RESEARCH

The modern workforce, part I: supporting the platforms for productivity: mobile, BYOD, and cloud

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Executive summary

This report is the first in a series of three that analyzes the results of two global surveys: one of the vanguard of the modern workforce (workers ages 18 to 34) and one of IT professionals. Sponsored by Adobe, this Gigaom Research study aims to help technology decision-makers better understand:

- What the modern workforce thinks it needs to succeed in this rapidly changing world of mobile-first communications and new work-collaboration technologies
- How IT is supporting those needs and overall corporate objectives
- If there are gaps between worker expectations and IT requirements, and how technology buyers can address them

Gigaom Research's objective is to give technology decision-makers better insights into how their workforce is evolving so they can make them more successful and align people and technologies with corporate objectives. Both IT and functional management can benchmark themselves against the mainstream and against the leading edge of fast movers.

Key findings include:

- Overall, IT departments are doing a solid job of supporting the communication and collaboration preferences specified by the modern workforce. Workers surveyed said their companies supported their top three preferred means of collaboration, and, in fact, IT was ahead of demand in supporting critical collaboration tools like productivity software and intranets.
- Workers also said their companies supported their preferred mobile business applications, including email, file syncing, and conferencing. However, although IT decision-makers we surveyed were enthusiastic about the cloud and the bring-your-own-everything world, some gaps between worker preference and IT support appeared in bring your own device (BYOD).
- The survey suggested that IT professionals are now turning their attention toward collaboration outside the company at a rapid pace, after 59 percent stated they had changed the tools for internal company communication and collaboration in the past year.

- A group of fast-moving IT departments represent the leading edge; they are more deeply engaged in mobile, cloud, BYOD, and new communications and collaboration techniques across the board. These fast movers represented 13 percent of the IT respondents we surveyed.
- Workforce adoption of some of the newer work technologies lags IT provisioning, suggesting that factors outside the IT department could be a barrier. Companies should create cross-functional task forces to evaluate the intersection of these technologies with worker productivity.

Introduction

We are in a time of enormous change in the world, but our understanding of the forces at work is constrained by the degree and the immensity of that change. Every day we wake to a vortex of forces that Gigaom Research characterized [recently](#) as the “new normal.” There, technologies, societal shifts like urbanization and the always-on lifestyle, and stressors like globalism, the shifting social contract, and the boom-bust cycle of the world economy whirl like a tornado as they influence one another.

These forces are so pervasive and encompassing that we in effect cannot back up far enough to get a big-picture view. We are reduced to building up our understanding of this postnormal world in a bottom-up, analytic fashion, looking at the component parts and their interactions and determining how they impact us as individuals, organizations, and a society.

At the same time, senior executives seek higher productivity with an eye on new technologies to reduce the friction the workforce faces in getting things done. The C-level execs are challenging IT organizations to push the envelope on new technologies and practices like mobile computing, bring-your-own-device and bring-your-own-app policies, and cloud-based applications and services.

This is the first in a series of three reports on the modern workforce. This report examines the accelerating pace of change impacting business and how IT is adapting to those changes. The second report will look into the new work technologies being adopted and how they are shaping the new form factor of work, and the third will focus on the people making up the modern workforce and how the world of work, their behaviors, and work relationships are changing. IT decision-makers can use this analysis to better understand the modern workers they’re supporting, with the objective of making them more productive and better aligned with corporate objectives.

The current state of collaboration and communication

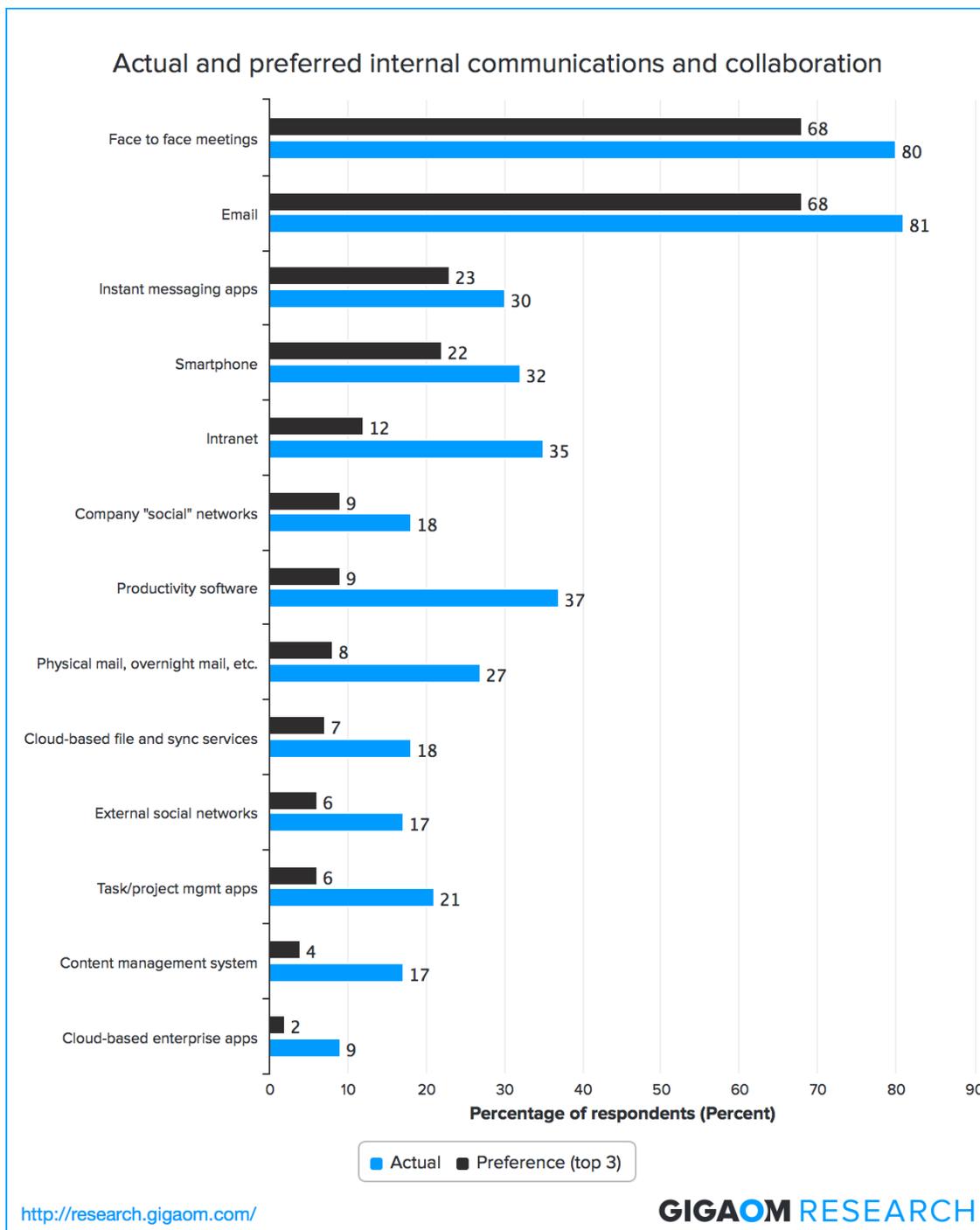
To understand the habits and preferences of the modern workforce, Gigaom Research surveyed over 1,200 workers ages 18 to 34 across North America, Europe, and the Asia-Pacific region in the first quarter of 2014. We found that IT is more in alignment with the needs of the cutting edge of the modern workforce than skeptics might think. The survey asked the workers to describe how their companies communicated and collaborated within their company and how they would prefer to do so.

Globally, IT departments are ahead of worker preferences in offering desktop communications and collaboration tools. While they are maintaining pace with mobile demand, IT decision-makers must be wary they don't fall behind in supporting BYOD and personal apps. But overall, IT is in step with workforce preferences and needs.

In the best example of how quickly IT is adapting to the new imperatives, the worker survey showed that IT departments are ahead of their preferences in offering work technologies like collaboration, productivity tools (office applications), intranets, file-sync-and-share tools, enterprise social networks, and the like. This goes for traditional applications running on on-premise servers and desktop apps and increasingly for Software-as-a-Service (SaaS) solutions running off premise with a browser-based experience.

Figure 1. IT ahead of workforce in supporting collaboration preferences

How does your company communicate and collaborate within the company? How would you prefer to do so?



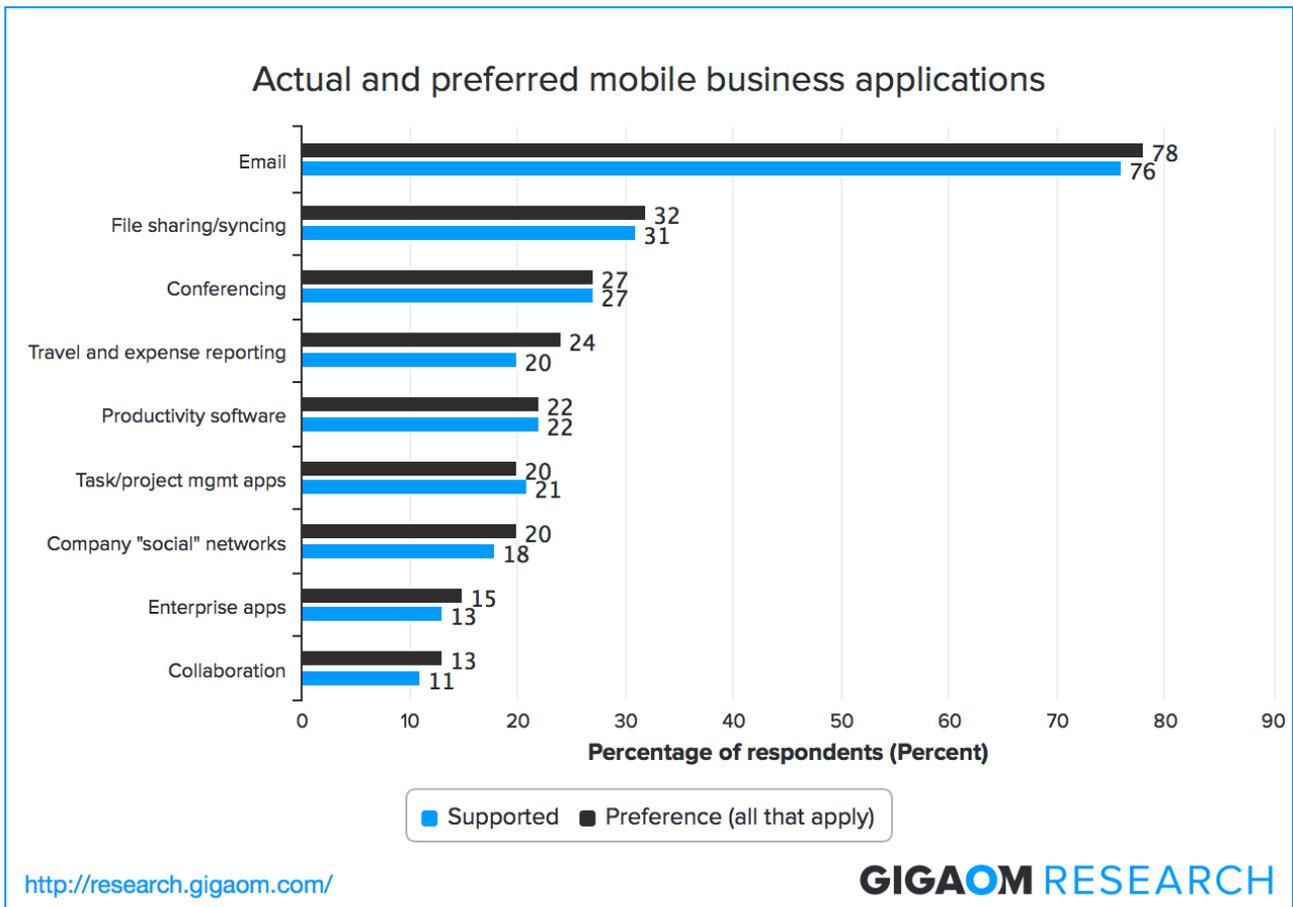
(Source: Gigaom Research global workforce survey, n=1,208 workers (ages 18–34))

The worker survey suggests that despite the fact that IT has made these preferred tools available, adoption is uneven. That topic will be explored further in this report and in the third report in this series.

Meanwhile IT departments are staying just slightly behind worker demand for mobile business applications. The survey asked workers to compare which business apps their companies supported on mobile devices like smartphones or tablets and which they preferred to use. Mobile is a hot zone of adoption for the workforce and an easy source of downstream productivity. IT must support the right tool for the right task, whether it's information access, light editing or feedback on a phone, or heavy content creation on a desktop.

Figure 2. IT is keeping up with mobile-app-support demand

Which business applications does your company support on mobile devices? Which do you prefer to use?

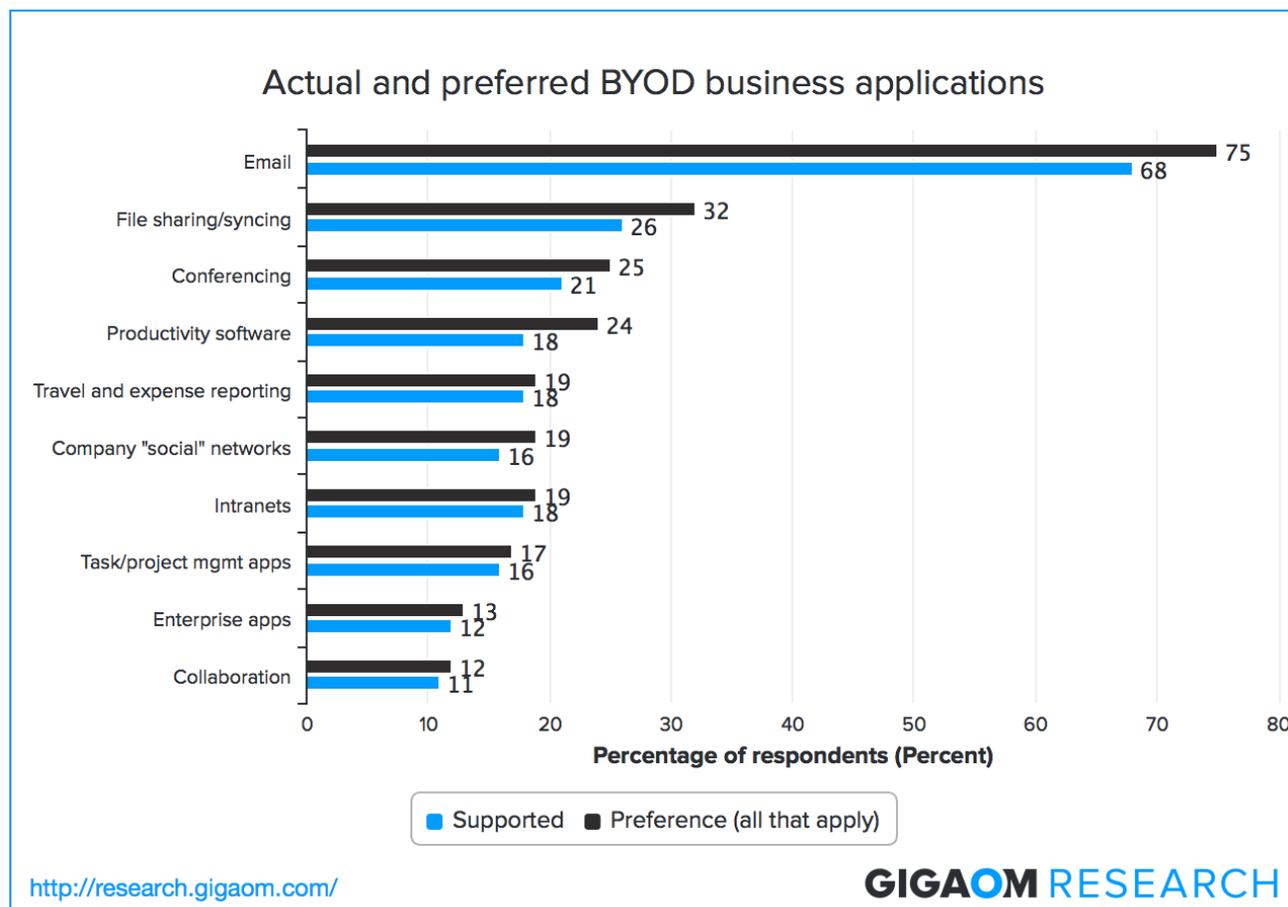


(Source: Gigaom Research global workforce survey, n=1,208 workers (ages 18–34))

The place where IT departments will have to work most diligently is BYO everything. As employees are increasingly using mobile devices for work, they're also bringing along their own. The dominant phone and tablet ecosystems — Google's Android and Apple's iOS — have familiarized users with app stores and their cheap, fun, easy-to-use applications. Since most people are more productive when using tools they are familiar with, on devices they have with them all the time, IT may have to rally some resources to meet that demand. In many cases with BYO everything, supporting corporate requirements for security and data integration will depend on policy rather than technology.

Figure 3. IT must keep an eye on BYOD demand

Which business applications does your company support on your own personal devices? Which do you prefer to use?



(Source: Gigaom Research global workforce survey, n=1,208 workers (ages 18–34))

Faster rate of change demands mobile and cloud support

Moore's law forms the foundation of our modern world and in particular the metronome of our computer-clocked world: the speed at which people ask one another questions and the speed at which people — with the help of machines — answer them.

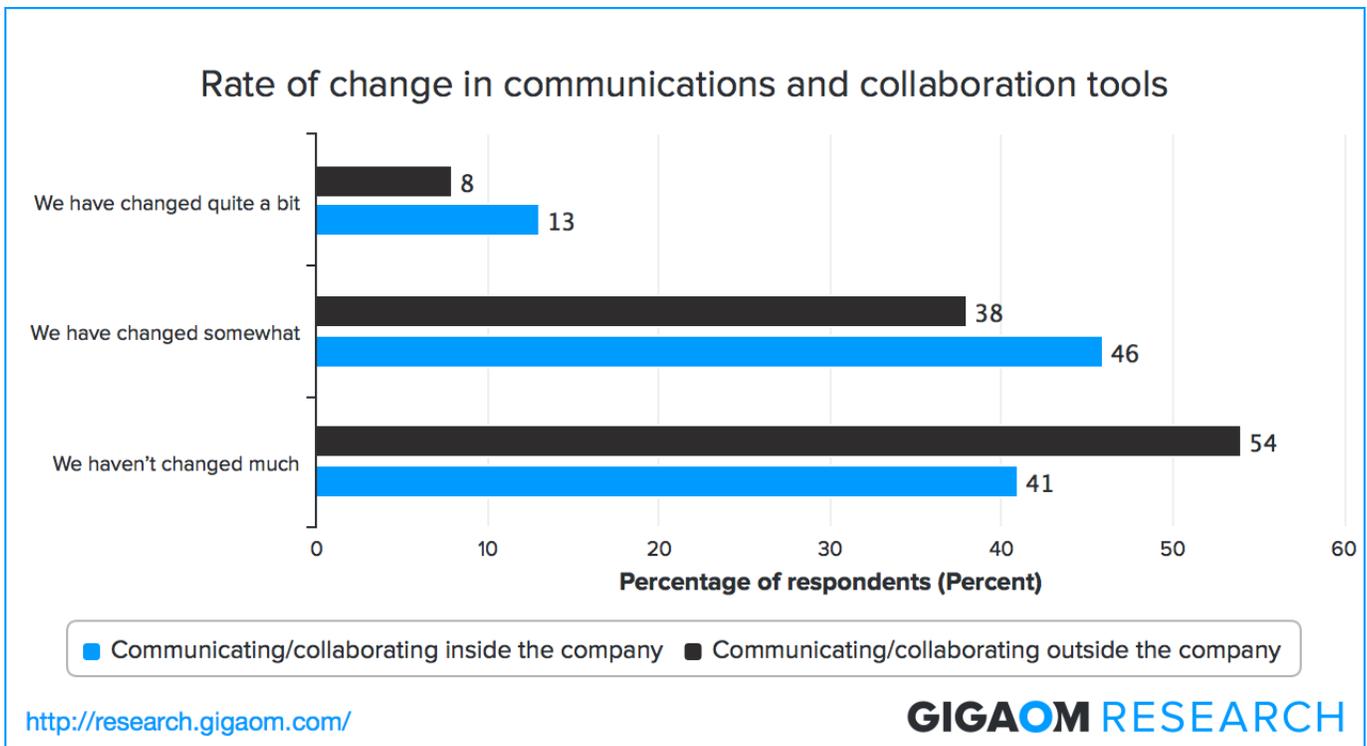
This increased pace is directly reflected in the rate of change in communications and collaboration tools. Simultaneously with the workforce survey, Gigaom Research surveyed 600 IT decision-makers across those same three regions and found that 59 percent stated that the way their companies communicated and collaborated within their company had changed “quite a bit” or “somewhat” in the past year. Forty-

six percent said the same for communications and collaboration outside the company. Our survey hinted that large companies (500 or more employees) are changing a little faster than smaller companies: 61 percent versus 57 percent for internal communications and 47 percent versus 45 percent for external.

We examined the 13 percent of respondents who said that they had changed internal tools “quite a bit” in the past year and found these fast movers to be leading-edge adopters of new technologies and drivers of these trends. Over two-thirds (69 percent) of them are big companies. The fast-mover data provides guidance for what IT departments should consider next on their priority list for new technology investment.

Figure 4. Accelerating rate of change for external communications and collaboration tools

How much have these tools changed in the past year?



(Source: Gigaom Research global IT decision-maker survey, n=611)

Mobile

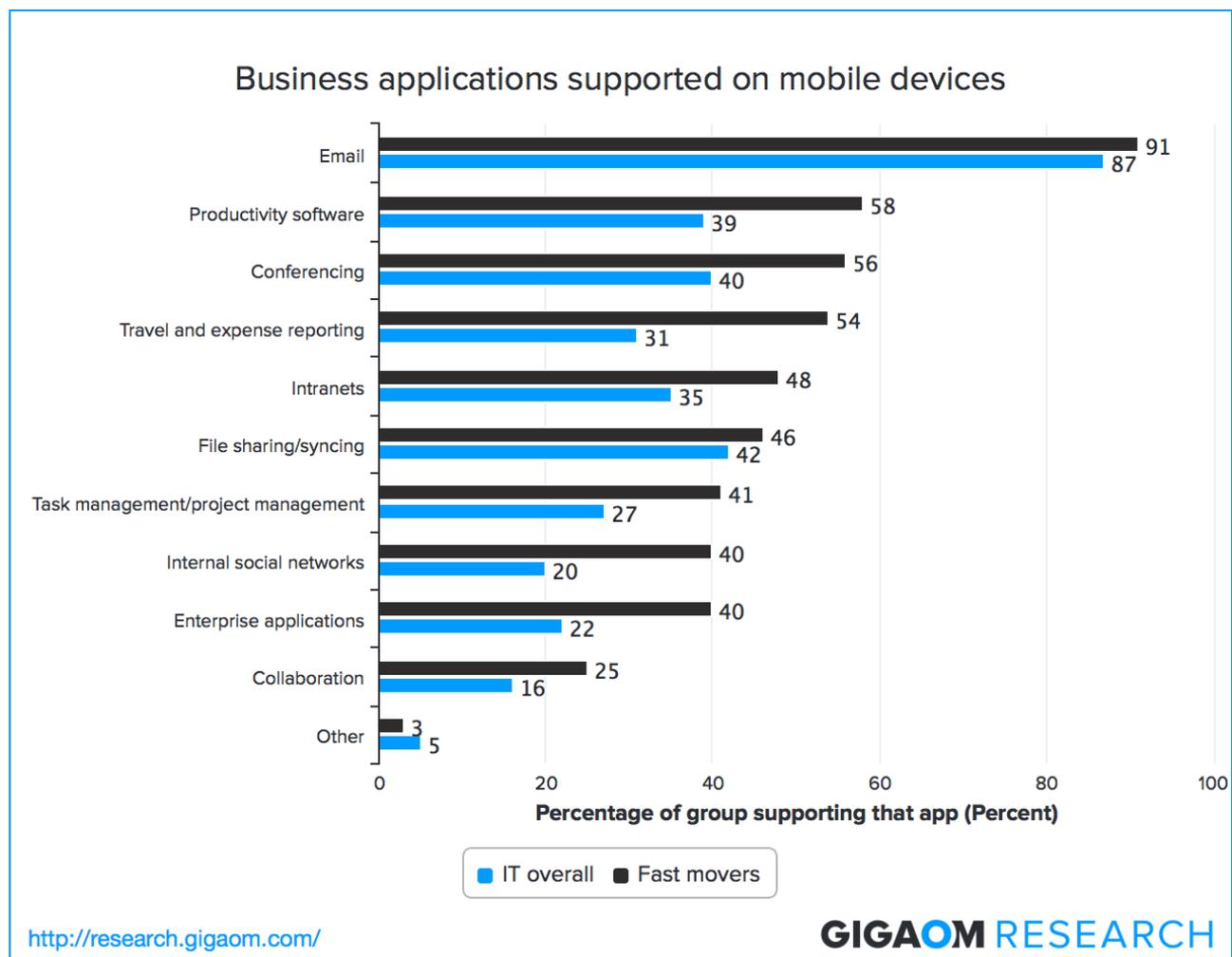
Most U.S. adults have access to one or more companion devices that they carry with them or are near at hand and that they use for content consumption every day. This has already led to an always-on blurring of the lines between work and personal time.

As shown, the modern workforce expects mobile support for apps like email, travel and expense, and productivity tools — applications used for authoring as well as viewing content and information. Those are familiar scenarios. But with the spread of single-function mobile apps, we're on the cusp of business necessities like app-knowledgeable information discovery. Users or algorithm-driven collaboration tools will soon pull information buried in apps and present the results in a collated and actionable way. This could be from email, communications tools, CRM, work management, or the like and presented like a folio with active links back to the apps.

The IT survey showed there is little difference among fast-changing organizations and the average for broadly adopted technologies like email and file sync-and-share options. On the contrary, the fast movers are opening a mobile gap between themselves and the average company on internal social networks and enterprise applications, as well as on task management and even productivity software. The larger company versus smaller company gap is most pronounced for mobile intranets (41 percent versus 26 percent) and enterprise applications (25 percent versus 18 percent).

Figure 5. Fast-moving IT supports more mobile apps

Business applications supported on mobile devices



(Source: Gigaom Research global IT decision-maker survey, n=611)

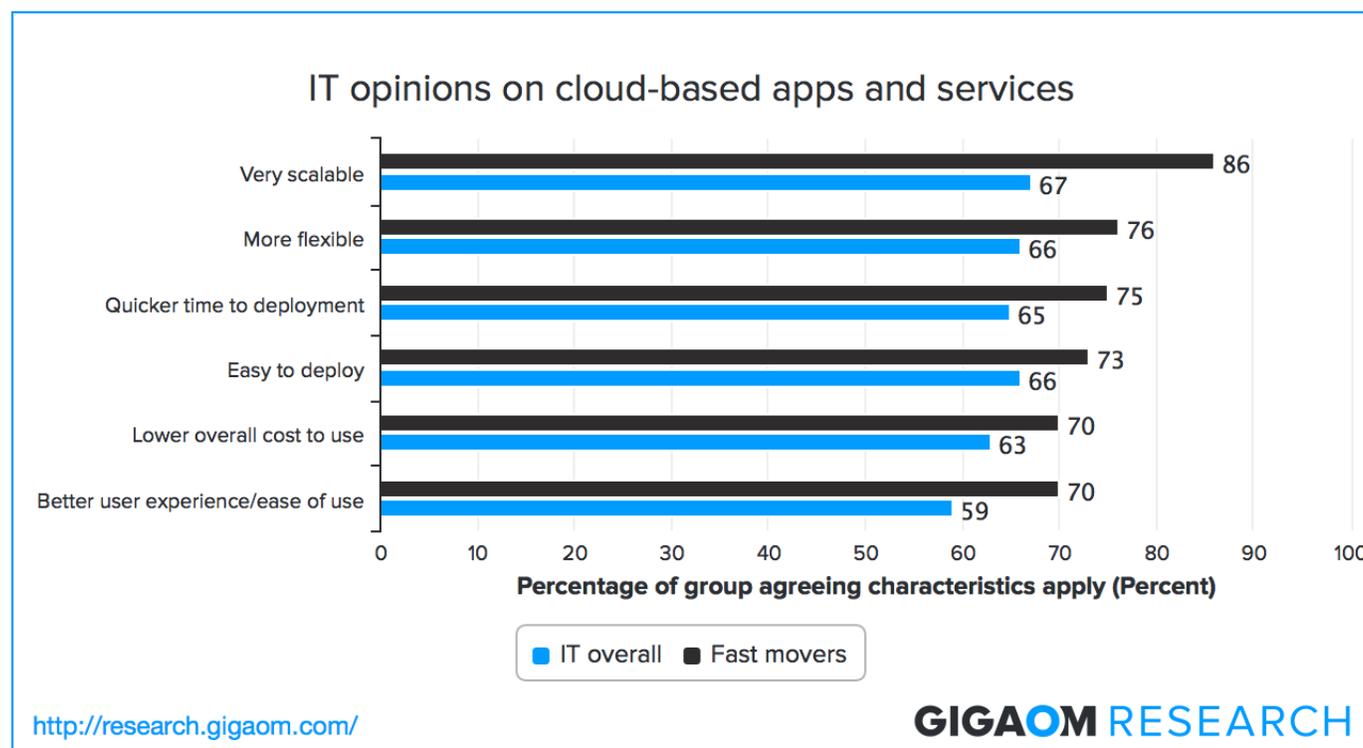
The fast movers lead in the areas that can be considered the least mature and show the widest divergence in business practices. But they're also ahead in technologies where there are a large number of offerings, like productivity tools, task and project management, and internal social networks. IT executives should carefully benchmark their own company's performance versus the fast movers and evaluate whether they need more development and support resources to handle multiple platforms and providers or whether they can incent employees to standardize.

The cloud

One of the most striking findings from the survey is the degree to which IT decision makers across the board have bought into the promise of the cloud. The majority of IT professionals agreed that cloud-based apps and services are scalable, easy to deploy, more flexible and quicker to deploy than conventional alternatives, lower in cost, and deliver a better user experience.

Figure 6. Fast-moving IT outpacing others on cloud acceptance

Agree these characteristics apply to cloud-based apps and services



(Source: Gigaom Research global IT decision-maker survey, n=611)

This attitude is even more pronounced in the fast-changer category of IT professionals. And there wasn't any notable difference among smaller and larger organizations. Almost all companies have some cloud-based applications, even if they have come in the side door via end users or functional management rather than IT. But ultimately, IT will have to support and integrate those SaaS apps alongside core Infrastructure-as-a-Service virtualization and Platform-as-a-Service offerings for in-house development.

Ubiquitous — often social — connectivity

The surprising thing about the web is that it has turned out to be social, a place where all roads lead back to us. Yes, manufacturers use the internet's plumbing to send supply chain information to their suppliers and partners and a great deal of bandwidth is dedicated to people streaming movies, but the defining aspect of the web is that people use it to make and keep connections with other people. And that social dimension has shaded the ways in which businesses, the media, and governments are using the web to communicate with markets, customers, and the public at large.

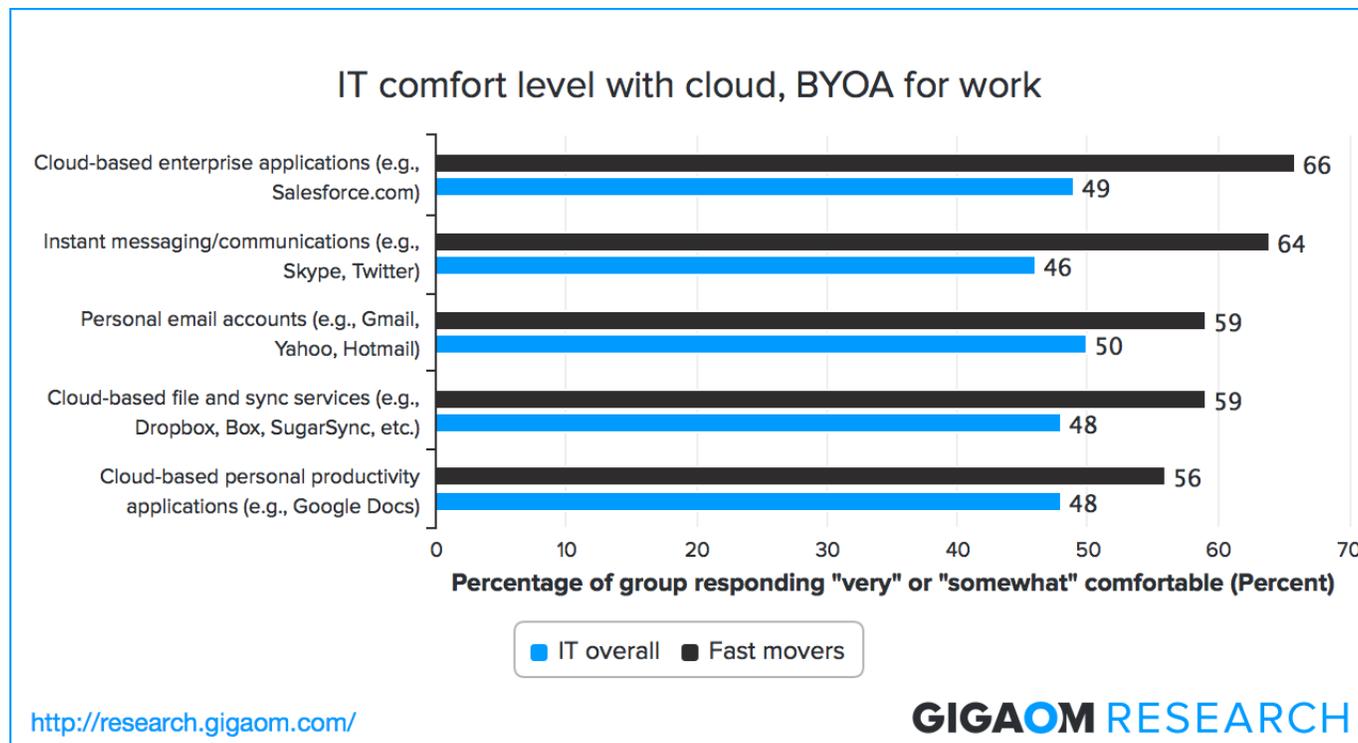
Now that the internet is a conduit connecting people on companion devices, with information streaming through applications running on cloud computing centers, the architecture, economics, and the social-ogy of the model are shifting. Three consequences will drive the discussion in this series of reports:

- The shift to companion devices has meant a transition to an always-on, always-connected way of life and work.
- Now that work activities have mobility, the cloud, and social connectivity, the applications the modern worker uses to get his work done are central to his work, not an adjunct to it. The individual apps and tools matter more than many processes.
- Paradoxically, as the modern workforce has become more connected through these technologies, the desire for and value of face-to-face communications and working socially in shared spaces have not diminished but are increasing. The nature of that interaction has shifted, but the worker's need for it has only grown.

IT decision-makers are in sync with the realities of the modern workplace, and only a minority are “uncomfortable” or “very uncomfortable” with employees using cloud and web-based solutions for work-related tasks, according to the survey. Fast-moving IT is even more inclined to adopt the flexibility of cloud apps and bring your own apps (BYOA) than the average. Larger companies were slightly less comfortable with cloud-based and BYO applications, likely for perceived security risks. Just under 50 percent said they were comfortable for each of the categories we queried, while more than 50 percent of the smaller companies were comfortable with everything but instant messaging (48 percent of smaller companies versus 44 percent of large companies).

Figure 7. Fast-moving IT even more comfortable with cloud apps, BYOA

Comfortable with employee use for work-related tasks



(Source: Gigaom Research global IT decision-maker survey, n=611)

The surveys showed that IT decision-makers are supporting the modern workforce's desire for ubiquitous connection, communication, and working socially. In many cases, IT departments are also end users of these tools and thus potential advocates for new work technology. Still, some IT execs are feeling stretched by the pace of change surrounding tools, and any department running hard just to keep up is going to have a difficult time taking the lead as an agent of corporate change. But this chart demonstrates how executives can better prove IT value to peers and senior management.

Key takeaways and recommendations

The profound changes that have pushed the workplace into a new normal represent both an opportunity for new levels of productivity as well as new challenges for IT to deliver on that opportunity.

In the past few years, there has been a well-publicized and growing C-level quest for higher productivity, closely linked with new technologies to reduce the friction the workforce faces in getting things done. This means that the IT organization is being challenged to get ahead of the adoption of new technologies and practices, like BYOD, cloud computing, and the rapid adoption of more-capable mobile devices and technologies like enterprise social networks. This pressure will increase as wearables — such as Google Glass-like eyewear, smart watches, and other sensors — explode into the business world in the next few years.

Gigaom Research has found a growing convergence in IT staff with the expressed needs of the modern workforce and the spectrum of applications needed for communications, within and outside the business and, increasingly, on mobile devices. Many companies need to push a little harder on mobile applications for internal social networks, classic enterprise apps, task management, and productivity software. But these are some of the most critical ways to tap into new reservoirs of productivity arising from working socially through networks.

The rapid shift in alignment shown by the fastest-moving organizations leads to the following recommendations:

- **Mobile first.** The best planning stance for the near future is that businesses need to reflect the rapid adoption of mobile technologies we are seeing in the consumer sector. Modern workers want to work wherever they are, not chained to a desk. IT management can continue the progress that has been made in the mobile provisioning of basic communications tools like email, and it should accelerate the early rollout of more-advanced work-management tools like enterprise social networks. Handle the inevitability of BYOD via clear policies, and evaluate solutions like virtualization, containerization, and other forms of abstraction for data protection and device compatibility.
- **Cloud-based services.** A great deal of cost and friction (deployment, scalability) can be wrung out of IT by moving communications and collaboration tools to the cloud. The average IT organizations are perhaps only a year or less behind fast movers in support of newer and more-

complex applications. Cost savings and the growing maturity of the solutions available have made the cloud transformation an almost foregone conclusion. On top of cost savings, IT executives should collaborate with functional managers in processes and the automated metering of cloud services to ensure that worker productivity is actually increasing.

- **Socially connected business.** The key to the hoped-for boost in workforce productivity depends on the modern workforce actually using these new work technologies. Fast-moving IT is doing its part to provision the services. While the workforce survey hints that users are starting to prefer the new tools, there may well be uncertainty at C-level and line-of-business management about which tools and practices are most effective. IT should help drive its companies to create cross-functional task forces to evaluate the intersection of these technologies with worker productivity, establish metrics and benchmarks, and fine-tune training as necessary.

Senior IT executives can use this blueprint to best support the modern workforce and take a leading role within their companies in boosting productivity. The next two reports in the series will examine the role of these new communication and collaboration tools and their value in increasing productivity as well as the changing complexion of the workforce itself.

Appendix 1

United States

In the United States we observed the following patterns relative to global respondents overall.

When asked about their preferred ways to communicate and collaborate inside the company, U.S. workers suggested their companies were the farthest ahead of their preferences compared with other regions. U.S. workers' top three choices were slightly less concentrated than the global average, though they boiled down to a similar mix of email, meetings, with IM and smartphones a distant fourth and fifth. Notably, U.S. workers also liked collaborating via productivity apps, company social networks, and file sync. And U.S. companies actually used nearly all the collaborations means more than the other regions, and often well ahead of worker preference.

U.S. workers reported that their IT departments were close to their preferences in terms of mobile business application support, but just a little bit behind. More workers wanted file sync, travel-and-expense apps, and collaboration apps supported on their phones and tablets.

The U.S. workers said their IT departments were a bit behind their preferences in BYOD support for business applications, but more in sync than what we observed in Asia-Pacific countries. Support for email, file sync, and productivity software on workers' personal devices lagged demand.

IT decision makers in the U.S. were the most fast-moving of the regions. A whopping 17 percent said their internal communications and collaboration tools had changed quite a bit in the last year. Eight percent said their tools for collaboration outside the company had changed quite a bit.

In comparison with other regions, U.S. IT departments are the most advanced in mobile business application support. Their lead is most pronounced in conferencing, productivity software, and collaboration. The U.S. decision makers were quite positive on cloud computing in general, with attitudes very similar to those of their European counterparts and significantly more bullish than those in the Asia-Pacific region. Over 60 percent agreed with all of the positive cloud characteristics we tested, and 73 percent agreed that cloud-based apps are very scalable. Similarly, they were comfortable with cloud apps and BYOA in general, especially in comparison with the Asia-Pacific region. Compared to the other regions, they were by far the most comfortable with using IM for business.

Survey methodology

In January-February of 2014, Gigaom Research conducted a series of web-based surveys of workers, ages 18-34, and of IT decision makers. We aimed for a global base of respondents, targeted by several countries so that we could interpret regional attitudes and behavior directionally.

The workforce surveys totaled 1,208 respondents. We had 500 respondents in the U.S., 404 in the Asia-Pacific region (Japan, Australia, New Zealand), and 304 in Europe (Germany, France, U.K.), with an even gender mix, scattered across a variety of industries. We recruited to ensure the employees used computers and mobile devices, and that over 65 percent worked at companies with 100 or more employees.

The IT decision-maker surveys totaled 611 respondents at companies with 10 or more employees. We had 250 respondents in the U.S., 205 in in the Asia-Pacific region (Japan, Australia, New Zealand), and 156 in Europe (Germany, France, U.K.), across a mix of industries. We biased recruiting towards larger companies, so 87 percent of the respondents worked at companies with 100 or more employees, including over 25 percent at companies with more than 5,000 employees.

We used incentive-based panels from Research Now, who also translated and hosted the surveys for us.

About Stowe Boyd

Stowe describes himself as a web anthropologist, futurist, and analyst. His focus is the future of work, and the tectonic forces pushing business into an unclear and accelerating future. Stowe has worked as an analyst for Gigaom Research for several years, and as the Curator in the social and future of work area since fall 2012. Stowe has been tracking the social revolution online since 1999, when he coined the term ‘social tools’, and starting blogging. He was president of Corante, a blogging pioneer, in the mid ‘00s, and has been widely recognized as a theorist and influencer in the social web. He coined the term “hashtag” in ‘07 during an online conversation with Chris Messina, the originator of the convention.

He is at work on a book, *Fast-and-Loose: The New Form Factor For Work*. Stowe has participated in numerous conferences and events worldwide, including Web 2.0, Enterprise 2.0, Gigaom Net:Work, Reboot, Next, Mesh, Shift, Lift, SIBOS, Defrag, SxSW, and several TEDx events.

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