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Today’s workers – and especially the new entrants to the workforce – expect rich and full mobile support with connectivity to systems historically found in the office. As end-user expectations are evolving, so is the technology landscape. The benefits of getting mobility working in the enterprise can be significant, and the findings from this survey show clearly maturing expectations from today’s mobility executives.

For the fourth consecutive year, the Apperian Executive Enterprise Mobility survey has gleaning responses from more than 100 mobility professionals across more than 10 industries. In this report, CITO Research analyzes the survey results and suggests a program for taking advantage of the lessons that emerge from the data. This report examines key mobile trends, describes drivers of success, and concludes with recommendations for expanding enterprise mobility programs.
Survey Demographic Characteristics

Mobility is spread broadly across all company sizes and industries. The technology sector maintains a slight edge because it has traditionally had a large proportion of mobile and field-based workers. Cross-industry participation is further validated when comparing this survey with Apperian’s data warehouse, which holds information on nearly 3 million app deployments (as described in Apperian’s Enterprise Mobile App Trends Report).

What industry is your company in?

- Technology: 30%
- Other: 15%
- Manufacturing: 11%
- Healthcare: 10%
- Utilities/Energy/Oil & Gas: 9%
- Financial Services: 8%
- Transportation/Logistics: 5%
- Telecommunications: 4%
- Education: 3%
- Government: 3%
- Retail: 3%

Mobile Apps By Industry
Data Source: 2015 Apperian App Trends Report
We asked survey participants to identify the primary goal for their enterprise mobility program. Improved productivity is a key focus, cited by 43% of respondents and top-ranked in terms of percent difference from last year. Coming in second is “new revenue and service opportunities,” which exhibited the second-largest percentage increase from 2016.

**Improved productivity is a key focus, cited by 43% of respondents and top-ranked in terms of percent difference from last year.**
We believe this suggests that enterprises want to see mobility drive real bottom-line impact versus simply improving processes. When digging into the details of which apps some of those mobility projects are delivering, it becomes clear that enterprise mobility is being seen as a true change-agent, enabling companies to innovate. There was a notable reduction in the number of respondents reporting mobility goals tied to employee satisfaction, improved business processes, and competitive advantage.

**Mobility programs have matured, their goals have shifted from foundational goals to bottom-line business objectives**

These results speak to a recurring theme of increased maturity. Mobility projects were typically initiated by IT in response to demand from employees, but as mobility programs have matured, their goals have shifted from foundational goals to bottom-line business objectives. The largest year over year percent decrease was in competitive advantage, which may suggest that organizations that have reached this level of maturity see enterprise mobility as widely adopted. In that case, organizations that still don’t have a mobility program in place are at even more of a competitive disadvantage.
Break new ground

Number of respondents citing **new revenue** and **service delivery opportunities** as the **primary goal** of their enterprise mobility program.

- **5%** in 2016
- **22%** in 2017
MOBILITY PAIN POINTS: COMPLEXITY AND SECURITY
Pains: Complexity and Unmanaged Devices

The chief pain point cited by respondents is the complexity of their mobile landscape (55%). While standardization of mobility programs and management represent the ultimate goal, the majority of organizations are not there yet. Survey results show that more than half of respondents remain eager to reduce the complexity of a mobile landscape that involves multiple operating systems and a long list of integrations, management methods and a constant flow of new, innovative app functionality.

Second is addressing non-managed devices (45%). This refers to BYOD users or members of the extended enterprise such as contracted or hourly workers, partners, or anyone else who is not directly employed by the organization and whose mobile devices therefore cannot be enrolled in an MDM or mobile device management solution. If corporate mobile apps can’t reach these users, organizations are hampered from realizing the full benefits of their mobility programs.

What challenges are you facing related to mobility?

- Complexity of mobile landscape (multiple operating systems, management methods)
- Addressing non-managed devices (i.e. BYOD or contractors’ mobile devices)
- Identifying the most important apps to create and deliver
- Lack of budget
- App design and user experience challenges
- Lack of management tools
- Low visibility into app usage metrics and ROI
- Lack of development talent
- Lack of app adoption

The chief pain point cited by respondents is the complexity of their mobile landscape (55%). A close second is addressing non-managed devices (45%).
Another set of challenges relates to delivering on users’ expectations. Nearly a third of respondents find it challenging to identify the most important apps to create next, and more than a quarter cite challenges around app design and user experience (UX). It’s no wonder: corporate app developers are competing with the polished user experience of the best apps on the consumer market, which set user expectations for how business apps should operate in the workplace.

Just as interesting are the declining challenges in the areas of budget (a challenge for less than a third now) and development talent. While this decline is another signal of maturity, there is room for improvement. Budget and development are still seen as a challenge to 30% and 25% of respondents. With enterprises developing apps with increased functionality (to address real business needs, generate revenue, and improve productivity) app design and UX become more important and challenging – as does identifying which apps to develop next.

**Nearly a third of respondents find it challenging to identify the most important apps to create next and more than a quarter cite challenges around app design and user experience (UX)**
Reach everybody

Do your apps reach all possible users?

Probably not

55% cite challenges addressing non-managed devices and 57% worry about the security of such devices
Mobile security challenges are a category unto themselves. More than half of respondents are concerned about corporate data on non-managed devices as well as security threats stemming from mobile devices. These concerns are on the rise, up 13% and 14% respectively over last year.

Complexity is the enemy of security, as security expert Bruce Schneier says, and so complexity of the mobile landscape and the plethora of non-managed devices exacerbate security concerns. Given the array of devices, versions, apps, and mobile threat vectors, a systematic approach to mobile security is required.

A notable drop in “compromised mobile devices” from top concern (60%) to third (49%) reveals a maturing mobility mindset. The devices aren’t the entire security story; data protection at the app level is also required for complete security.

Given the array of devices, versions, apps, and mobile threat vectors, a systematic approach to mobile app security is required
THE SCALE AND SCOPE OF ENTERPRISE MOBILITY
Equipping the Extended Enterprise

The vast majority of organizations offer apps to their employees (86%). As mentioned earlier, there is a growing movement toward offering apps to what we call the extended enterprise, including contracted workers, hourly workers, dealers, distributors, consultants, and other business partners. As companies seek new revenue opportunities and innovative ways to better service their customers, they are increasing their emphasis on improving the productivity of everyone across and beyond their organization’s walls.

Powerful Custom Apps for the Organization

What types of mobile apps are being deployed? We see signs of maturity as the emphasis moves from simple (book a conference room) apps to field service, productivity, and side-by-side selling and field enablement apps. Some 85% of organizations believe the greatest impact will come from a combination of apps that improve productivity across the organization along with apps that mobilize sales and field service.
Get more done

Improved productivity is cited as the primary goal for nearly half (43%).

The vast majority (85%) think the greatest impact will come from field service, productivity, and sales apps.
Many Users, More to Come
More than a third of organizations have over 5000 mobile app users, and more than 44% expect to equip thousands more over the next two years.

The size of app portfolios on average is on the rise, with 80% stating that they plan to expand their app portfolio over the next 12 months.

Aside from customers, how many users have you equipped with mobile apps?

- 35% ≤500
- 39% 501-5,000
- 26% >5,000

How many more users do you expect to equip in the next two years?

- 28% ≤500
- 44% 501-2,000
- 29% 2,001-5,000

More Apps, More to Come
The size of app portfolios on average is on the rise, with 80% stating that they plan to expand their app portfolio over the next 12 months. In the App Trends dataset of nearly 3 million deployments, the median number of apps per company is 35. While this survey shows a broad segment of companies with smaller app portfolios (fewer than 10 apps), about one-fifth (19%) of respondents offer more than 20 custom apps currently, with 12% stating that they plan to develop more than 20 additional apps in the next 12 months.

How many custom apps does your organization currently offer?

- 19% 0-1
- 19% 2-5
- 10% 5-10
- 16% 10-20
- 37% >20

How many custom apps does your organization plan to offer in the next twelve months?

- 21% 0-1
- 30% 2-5
- 21% 5-10
- 17% 10-20
- 12% >20
HOW MOBILITY IS DRIVEN, MEASURED AND IMPROVED
Getting Mobile Apps Adopted, Agile Approaches

Investment in developing apps or buying third-party apps cannot provide returns unless people use those apps. More work is being done to drive app adoption and the range of internal programs is broadening. Based on our experience in the field, we added two new responses to the survey this year to capture emerging trends.

1 Including end users in the app development process

More than half of respondents say they now include end users in the app development process, moving toward an Agile approach. Working closely with users from the start is key to creating successful UX and provides insights into what apps – or new app features – users need next.

2 Providing apps to all potential users

More than a third of respondents are offering apps to the extended enterprise, broadening their user base and presumably the breadth of capabilities needed to support the wider array of users.

How are strategies to drive increased app usage evolving year over year? Compared with 2016, 31% more companies offer a mobile help desk, and 25% actively promote apps internally. Such internal marketing is crucial to deriving maximum ROI from mobility programs.
Metrics are key to driving a successful mobility program. And visibility into basic metrics has improved considerably over time. Respondents say they know what platform their apps are running on (80%) and which apps are being used (68%).

From a security standpoint, not knowing who is using apps represents a red flag, particularly given concerns about corporate data on mobile devices and mobile-based threats to corporate infrastructure. In terms of strategy, organizations need insight into which apps to develop next, and only about a quarter feel that their metrics give them insight in that area.

**Respondents say they know what platform their apps are running on (80%) and which apps are being used (68%)**
As mobility moves from a new initiative to a foundational capability, the initial barriers have been reduced. Initial budget and development talent are in place. The obvious apps have been created. Now the real work begins. How can you find the next revenue-generating app for your organization? And how can you make sure that your apps reach as many users as possible?

1. Build on maturity by scaling your programs in both breadth and speed
2. Determine the “market penetration” for your custom apps
3. Involve users in app development
4. Contain complexity and maximize flexibility
5. Create a pipeline of great app ideas
RECOMMENDATIONS

▸ Build on maturity by scaling your programs in both breadth and speed. The pipeline from development to deployment is working. It is now time to get more benefit by taking advantage of proven ways of using mobile applications. Scale your app deployments both in the number of apps you offer and the number of users. If you have yet to kick off your mobility initiatives, you are at a competitive disadvantage. Fortunately, you can take advantage of the lessons learned by early adopters.

▸ Determine the “market penetration” for your custom apps. Apps provide the most value when they reach everyone who can benefit from them, including those in the extended enterprise. Many users, however, resist putting their devices under corporate management, in effect reducing the market penetration for your apps. Consider the total population in the company who could benefit from a particular app, and determine what percentage of that population is actually technically reachable. From that technically reachable group, how many have you reached? In this way you can determine penetration.

▸ Involve users in app development. Engage users early and often in the app development process. Continue to engage them as you enhance your apps, adding new features. Push it even further and provide these non-programming users with approved Rapid Mobile App Development (RMAD) tools so that they can develop their own mobile apps, becoming citizen developers to avoid the IT bottleneck. Monitor app adoption or the “popularity” of your apps to better determine where more promotion and education is needed, as well as identify when an app may require further testing or design enhancements. Key app usage metrics include download rate and launch rate and should be tracked by app and by groups of users.

▸ Contain complexity and maximize flexibility. Take an app-centric approach to mobility management in order to reduce overhead costs and maximize the number of users you are enabling and making more productive with mobility. Leave the corporate owned devices in the past and let employees use the type of devices they chose. Place security at the app level and protect what matters most – the corporate data.

▸ Create a pipeline of great app ideas. This requires engagement and leadership. Form a mobile steering committee for your organization. Mobility programs need executive ownership to coordinate efforts and generate ideas and feedback. Supercharge that effort by engaging peers. Find mobility leads in your industry or your region and engage with them, sharing ideas. Consider joining the Customer Advisory Board for your mobile provider.
Acknowledgments

About CITO Research
CITO Research is a source of news, analysis, research and knowledge for CIOs, CTOs, IT and business professionals. CITO Research engages in a dialogue with its audience to capture technology trends that are harvested, analyzed and communicated in a sophisticated way to help practitioners solve difficult business problems.

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