5 ENTERPRISE MOBILITY TRENDS TO WATCH IN 2019
With trends such as big data, artificial intelligence and IoT dominating today's business technology headlines, the buzz around enterprise mobility (now considered known and familiar) may have lessened, but its importance has not. Consider its key role in today's top tech trends, and then also consider this. According to an Oxford Economics survey of 500 senior IT executives, CEOs, and other senior managers, 80% say workers cannot do their jobs effectively without a mobile device. The same survey shows:

- 82% say mobile devices are critical to employee productivity
- 82% say mobile devices are critical to agility and the speed of decision making
- 76% say mobile devices are critical to customer service and satisfaction
- 75% say mobile devices are critical to innovation and collaboration
- 70% say mobile devices are critical to employee satisfaction
- and 70% say mobile devices are critical to revenue growth.

The known and familiar now demands a fresh look and focus from enterprise organizations as we head toward 2020.
According to GMSA data, there are now more than five billion unique mobile subscribers globally, and more than 7.5 billion connected IoT devices, with the latter number predicted to rise to more than 25 billion by 2025.

For enterprise organizations, there is no time like the present to embrace the evolving and pervasive use of mobile technology. But it’s not just about increased availability, convenience, engagement and agility. Harnessing the power of 5G, voice, proximity, IoT, machine learning and AI will move mobile and mobile app-enabled organizations even further ahead.

As organizations focus their 2020 (and even 2030) vision, MicroStrategy has compiled key trends enterprise organizations should be watching and acting on from leading influencers in enterprise mobility and digital transformation, including Forrester’s Michael Facemire and Andrew Hewitt, VDC Research’s Eric Klein, Ventana Research’s Mark Smith and global influencer Ronald van Loon.

From employee engagement and retention, to enterprise application development, to telemetry, digital identity, AI and augmented reality, we hope you’ll find this gathering of expert insights an interesting and influential resource for looking and planning ahead.
THE BUSINESS PROMISE OF ENTERPRISE MOBILITY DEMANDS A BETTER WAY
The Business Promise of Enterprise Mobility Demands a Better Way

From the Forrester report, The Future of Enterprise Mobility: The prospect of delivering effective enterprise mobility might look grim, but the returns can be tremendous. Millennials average two hours a day on their phones, spending 78% of that time in apps, so the need for mobile services and management tools is as strong as ever. But the value comes from more than meeting Millennials where they are. Efforts to support mobility:

**Translate into tangible business value.** Shifted employees — those who have readily adopted mobile tools — are more likely to have a positive view of working for your company. Not only are they 22 percentage points more likely than disconnected employees to say their companies’ customers are satisfied with their products and services, they’re more bullish on their company’s overall financial performance: Shifted employees are 28 percentage points more likely to estimate year-over-year revenue at 10% or more and 30 percentage points more likely to view the company as forward-thinking and innovative.

Michael Facemire
VP and Principal Analyst
Forrester

Michael is a leading expert on mobile software development, software development processes, and next-generation software architectures. He joined Forrester from IBM, where he delivered industry-leading applications in mobile, social software, content management, portal, and workflow.

Andrew Hewitt
Analyst
Forrester

Andrew is an analyst serving infrastructure and operations professionals. Andrew’s research focuses on enterprise mobility and how organizations can create better mobile experiences for employees that, in turn, improve customer outcomes. He is a contributor to Forrester’s employee experience research, and his key coverage areas include enterprise mobility, unified endpoint management, enterprise mobility management, and bring-your-own-device (BYOD).
Help support employee autonomy, a key ingredient of “flow.”
The pioneering psychologist Mihaly Csikszentmihalyi describes flow as “a pleasurable experiential state that occurs during full-capacity engagement in which an individual is performing at a level that is matched with the demands of the task.”

82% of senior IT executives, CEOs and senior managers say mobile devices are now critical to employee agility and the speed of decision making.”

—Oxford Economics Maximizing Mobile Value Report

In a state of flow, people perform at their best — and their best can be extraordinary. Autonomy, or the flexibility to choose how work gets done, is a key ingredient to facilitate flow. Psychological research proves that people are happiest at work when they’re most productive; further, when they’re happy, they’re willing to try hard to win, serve, and retain customers. Shifted employees are 24 percentage points more likely to report that they’re empowered to solve their own problems and challenges at work.

Michael Facemire, Andrew Hewitt, The Future of Enterprise Mobility
TREND 2

WORKSPACES BECOME FOUNDATIONAL MOBILE SOLUTION ELEMENTS
Mobile devices have revolutionized the way in which most of us interact with our families, friends and colleagues, and how we get our work done. Consumer-oriented mobile experiences (think of your favorite mobile apps you use regularly to save time and simplify checking in at the airport, getting a cup of coffee, procuring meals, etc.) have driven these activities, and have opened the eyes of many organizations to the productivity opportunity associated with expanding mobile access to core business apps. This process has been in motion for several years now.

Organizations have been making investments in software and tools to streamline their application development processes, enhance their security posture, and to simplify the way in which they administer and manage their technology deployments and how they provision applications to their workforce. Now that many of us carry more than one device, one would think that we’d be getting more work done — unfortunately, that is still not the case, at least for most of us.

Eric Klein is a market research and consulting professional who specializes in the design, analysis, and delivery of project-based research. Over the past 15 years, Eric has worked with a wide array of firms across a number of industries, leading quantitative and qualitative research in areas such as innovation in enterprise software, supply chain risk management, manufacturing operations/automation, and IT spending research.
But several concurrent technology and partnership trends will provide organizations with new opportunities to enhance their users’ experience while providing better (and more secure) access to the applications they want/need most to be more productive.

Each of us has our own preferred way in which we access our favorite “go-to” business applications: vendors such as Apple, Google and

There is a tremendous amount of telemetry data pertaining to device health, web and mobile application usage, and user data (how many users are active, how app usage is changing over time, how users are navigating from page to page/feature to feature, etc.) that organizations should be monetizing.”

—Eric Klein, VDC Research

Microsoft have conditioned us on these behaviors (remember how many people complained when Microsoft removed their Start button?). The reason for the complaints, was that we tend to like “launchers” — they make it easy to get to the apps we want access to. Several vendors are heading down a path that takes the launcher concept at one step further: the market has settled on the term Workspace, but going forward, we expect these solutions to become foundational elements, particularly to mobile deployments. Technology vendors such as Amazon, Citrix, and VMware are vigorously promoting their respective Workspace solutions (note that each of the vendors’ Workspace vision is different; but they are more similar than not). On their face, what these solutions will show are “modern application launchers,” but what is “under the hood” is why they are likely to see more adoption in 2019.
Workspaces Become More Than App Launchers: Service providers will be key actors in delivering Workspace solutions. This class of vendors has the expertise to help organizations implement new business models such as Device-as-a-Service, or DaaS; these vendors have experience in helping their customers with the challenges they face relating to organizational readiness and have the ability to customize and curate the right blend of required technologies. A well-integrated Workspace solution has the potential to transform the way we collaborate, access applications, and get our work done.

Modern Workspace-based solutions are getting more powerful; today, these solutions can run on any modern OS, offer enhanced security, are app-agnostic (some can accommodate access legacy Windows applications through virtualization), and (once analytic elements are properly integrated) these solutions will offer a means of compiling important telemetry data (mostly associated with mobile usage), which will provide organizations with the ability to gain end-to-end visibility and control of their increasingly disparate endpoints. Customizable dashboards with intuitive interfaces will offer administrators enhanced visibility into their deployments and will help to surface predictive insights into network connectivity as well as device and applications performance with recommended corrective actions.

But it is the ability for the administrator to implement granular security policies based on user personas which will be most valuable and transformational, as the way in which applications are provisioned, utilized, and accessed can be optimized, based on contextual information and even location. Additionally, there is a tremendous amount of telemetry data pertaining to device health, web and mobile application usage, and user data (how many users are active, how app usage is changing over time, how users are navigating from page to page / feature to feature, etc.) that organizations should be monetizing. Workspace solutions will gain analytics functionality in 2019; this will enable administrators to improve application usage while providing visibility into why and how users are using business-critical applications. Not only will these solutions offer the ability to measure and monitor users’ activities within a given app, but they will also provide insights that can help prevent app abandonment.

But the real benefit Workspace solutions will deliver will ultimately be their ability to allow for seamless transitions of workflows between devices classes. Meaning, app “sessions” will be able to persist, and transition from your phone to your desktop or vice versa.
TREND 3

MOBILE IS REIMAGINED IN THE ENTERPRISE: SIMPLE IN DESIGN. HARD AT WORK
Mobile is Reimagined in the Enterprise: Simple in Design. Hard at Work

For years, Apple has worked tirelessly to use complex, sophisticated techniques to achieve simplicity in design for end users. They understand that simplicity provides a great user experience, and ultimately drives user adoption. In the first era of building apps for the enterprise, not all, but many companies focused on just functionality. They felt that getting powerful functionality into the hands of users was a quick win and may not have invested much effort on polished, user-friendly design.

Companies that build apps for consumers though tend to have large UI/UX teams focused on how to simplify and beautify their apps to get their users hooked, engaged and coming back over and over again. Why hasn’t the enterprise done the same for their own internal users? In the words of Bob Dylan, “the times they are a-changin’.”

More and more companies are now thinking about the design of apps for their employees and using inspiration from the world of consumer apps.

Emily Shorter is a Vice President of Product Marketing at MicroStrategy. In her role, she leads Solutions Marketing, Services Marketing as well as Product Marketing for the company’s mobile app platform. Emily has over 15 years of marketing, sales enablement, and sales experience across several industries including technology, market research, and retail.
As you’ll read about in another section, companies are figuring out that compelling mobile apps that help people do their job better are boosting employee satisfaction and retention. Alliance Bernstein, a financial services company that manages assets totaling more than $500 billion, designed their internal sales enablement app based on a Weather app. The simplicity of this beautiful, intuitive app is now empowering thousands of sales reps—delivering improved engagement success rates, enhanced data capture and optimized territory management.

61% of global business leaders say that companies that don’t deploy enterprise mobile apps are at a competitive disadvantage.”

—Adobe Driving Competitive Advantage with Enterprise Mobile Apps Report

We all know that—for most people at most times—mobile devices never leave our sides. As long as we remember to charge them, the tools on them are available on-demand, whenever we think about needing them. But, what if instead of just being there when we think we need them, they were always working hard to anticipate and deliver on our every business need?

In addition to adopting consumer-grade design techniques that encourage people to regularly use their app, enterprises will make their apps work harder at sensing what an employee needs before they even realize it. When the GPS on your mobile device tells a retailer’s or restaurant’s app that you are close to their location, they send you an alert encouraging you to visit. Companies should do the same for their employees. When a regional manager of a retail chain gets close to one of their stores, without having to go search for it, the manager should automatically receive insights that will help them improve the productivity of that store visit. Or, when a financial advisor is running from one client meeting to the next, a flash card should display reminding them that her
client, Ben, just deposited $25,000 into his account and recently went on a skiing trip. When the financial advisor goes into the meeting, she can really provide Ben with a personalized interaction that makes Ben feel like a valued client.

Mobile technology today can support these use cases. Enterprise organizations can and should take advantage of them for not just their external facing apps, but also for apps for their employees.

Humans are creatures of habit. People are going to access their favorite apps multiple times a day. They’ll view their calendar. They’ll look at their email. When you can build apps that fit into existing behaviors and just make those behaviors smarter rather than try to change them altogether, you’ve hit the jackpot. Companies have been doing it for consumers, the time is now for employees.
TREND 4

PERVASIVE MOBILITY BOLSTERS BUSINESS SUCCESS
Pervasive Mobility Bolsters Business Success

Mobile devices have become part of our daily lives. By 2020, new smartphone users will account for 66% of new global connections to the Internet, up from 53% in 2017. Without question, Apple (iOS) and Google Android devices have radically simplified the technology people have come to rely on, and applications that users can download via app stores have become an increasingly well-traveled path to engaging consumers. In this new era, businesses require mobile technology that integrates with the enterprise to fully engage the workforce and ensure maximum productivity. Business users want and increasingly expect their working environment to mirror their consumer life. This means they expect a simple, user-friendly experience, one where all the applications and information they need is readily available.

Advances in mobile technology are changing how people work as business users take advantage of digital devices in new ways. Six key mobile technology innovations are making smartphones and tablets truly smart and more valuable to business: device proximity, speech recognition, gestures, facial recognition, high-quality cameras and augmented reality (AR).

Mark is responsible for the overall business and research direction of Ventana Research and drives the global research agenda covering both business and technology areas. He is an expert in enterprise software and business technology innovations including business analytics, big data, cloud computing, business collaboration, mobile technology and social media. Mark started Ventana Research more than a decade ago and has worked in the software industry for 25 years leading innovations in research and technology.

Mark Smith
CEO and Chief Research Director
Ventana Research
When considering how to take strategic advantage of mobile technology, organizations can embrace enterprise platforms that are built to support mobile devices and take advantage of these six digital innovations.

“96% of organizations report that mobile technology has improved access to and use of data and analytics in the cloud.”

— Ventana Research

Any platform designed for mobile technology should have applications that can be assembled and configured without a developer. It should enable personalization, including secured identity access that is specific to individual roles, responsibilities and needs. And it should have robust enterprise security support to protect corporate and customer information, including mobile certificates, encryption, multi-factor authentication and enterprise mobility management (EMM) integration. The platform should support transactions, analytics and collaboration across business workflows and be optimized to use mobile devices’ native technology environment.

Moreover, data and analytics should be a part of a platform’s foundation so that it can better inform and guide actions. More than half of organizations (57%) in our benchmark research indicate the importance of accessing analytics from mobile technology. Presentations and visualizations of analytics should be configured in a way that makes sense when presented via mobile devices and should facilitate easy collaboration. Also, look to support geospatial analysis so that the context of analytics is specific to the device. Finally, embrace machine learning and AI technology, which can generate more prescriptive analytics that
can better guide decision-making on mobile devices. Our research finds that almost every organization (96%) reported that mobile technology has improved access to and use of data and analytics in the cloud.

An array of opportunities and potential benefits await organizations that are ready to take advantage of cutting-edge technological advancements in enterprise mobility. To improve efficiency and increase productivity, organizations should seek out relevant applications that can adapt to individual business needs. When marketing and sales professionals are working with effective tools, they can optimize potential revenue. To embrace enterprise mobility, organizations should identify their goals and needs and then determine if they have software designed for mobile applications that advance their potential.
TREND
5
POSSIBILITIES FOR MOBILE AI PROLIFERATE
Possibilities for Mobile AI Proliferate

Mobile Artificial Intelligence (AI) is rapidly developing. We’re used to the fact that we can take a photo with our phone or make use of its voice recognition capabilities by speaking to it. But with AI, the phone and its camera can “see” and “understand” what is in the image, and likewise understand what a person is saying. It goes even further than that because Mobile AI is capable of learning from human speech and from the photos that are taken to better understand a person.

Mobile phones have evolved to become “smart assistants,” and Huawei forecasts that in 2025, 90% of the global population will be using a smart assistant.

Mobile AI is not only impacting our everyday lives and interactions with our mobile devices, but how businesses function, as well. Companies can utilize Mobile AI to push innovation and solve problems.

Companies can use mobile devices to act as our eyes, “seeing” for us. For example, mobile cameras can be used to perform a bridge inspection that identifies potentially dangerous cracks, or changes in the dirt or earth surrounding a bridge that would affect structural integrity.

Ronald van Loon
Top 10 Analytics, AI, Big Data and Digital Transformation Influencer
Digital Transformation Institute

Ronald is globally acknowledged as a Top 10 Influencer in big data, IoT, data science, machine learning and predictive analytics. He is ranked among Onalytica’s Top Global Big Data Influencers. Ronald helps organizations in their digital transformation efforts, including providing insights and best practices to become more data-driven and customer-centric.
The mobile AI market is expected to reach $17.83 billion by 2023, increasing from $5.11 billion in 2018. Increasing demand for AI-capable processors for use in mobile devices, rise in cognitive computing, and a growing number of AI applications are some of the major factors driving the growth.”

— Mobile Artificial Intelligence (AI) Market by Application, Technology Node, and Geography-Global Forecast to 2023

AI-driven analytics can also be performed so that predictive maintenance can be executed without the need for any manual inspections, increasing safety measures.

Mobile AI has many other business applications, such as surveillance for security domains to help prevent theft and crimes. It can also recognize machines and help in providing instructions for repairing them.

Similarly, it can perform visual inspections for equipment like elevators, helping to maintain equipment functionality and operational performance. It streamlines task management activities by understanding voice instructions and carrying out everything from sending messages to clients, to ordering products or parts.

The possibilities and capabilities of Mobile AI will continue to increase and help provide us with an easier, safer, and more streamlined way of completing our day-to-day activities and business tasks.
Get More 2019 Trends and Insights

The evolution of enterprise mobility is accelerating. For more insights throughout the year and actionable advice on focusing your organization’s 2020 vision, follow these experts on Twitter:

Michael Facemire
@asocialface

Emily Shorter
@emshorter

Andrew Hewitt
@forrahewitt

Mark Smith
@marksmithvr

Eric Klein
@eakleiner

Ronald Van Loon
@ronald_vanloon
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