SAP Mobile Platform

Moving Mobile App Development into the Cloud

A Strategy That's Good for Business

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The Best-Run Businesses Run SAP™

Table of Contents

4 **The Business Case for Cloud-Based App Development**
Time Saved
Reliability and Availability
Collaboration

5 **Mobile Apps and the Cloud Go to Work**

6 **Innovation in the Cloud**
For More Information

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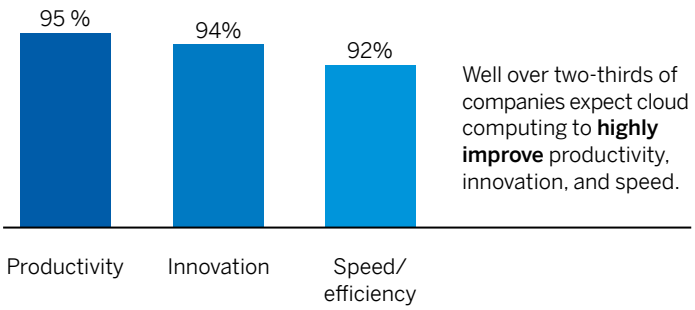
Mobile application developers are among the most sought-after professionals in the world. With both consumer and business apps in high demand, the public and private sectors are expected to create 292,000 new jobs for mobile app developers through 2020 in the United States.[1]

Cloud services adoption is trending as high (or higher) as mobile app development. Enterprises are embracing cost-effective cloud services for software, platforms, and more, making app development in the cloud a practical choice and a sound business model. According to Gartner, "The cloud is changing the way applications are designed, tested, and deployed, resulting in a significant shift in application development priorities."[2] The firm also estimates that "90% of large, mainstream enterprises and government agencies will use some aspect of cloud computing by 2015."[3] Additional research from an Oxford Economics Study shows that forward-looking organizations are adopting cloud computing to improve productivity, speed, and innovation (see Figure 1).[4]

SAP has taken a cost-effective enterprise view of app development in the cloud by integrating a proven, business-ready platform and a secure, scalable cloud service. The cloud version of SAP® Mobile Platform combines the power of SAP Mobile Platform and the SAP HANA® Cloud Platform to help companies speed their mobile development efforts without capital investments. Enterprises can create, configure, distribute, and manage mobile apps without having to install and maintain a platform server on premise.

The developer community has put its support behind SAP Mobile Platform (see "SAP Mobile Platform Feature Set" sidebar) and is creating a broad set of innovative business apps. For companies wanting a cloud-based solution, the cloud version of SAP Mobile Platform provides a range of services, including app registration, configuration, authentication, push notification, app analytics, lifecycle management, secure back-end connectivity, tracing and runtime analysis, and user onboarding. You can view the cloud version of SAP Mobile Platform as a mobile-as-a-service (MaaS) offering that provides the platform functionality in a reliable, secure cloud environment.

Figure 1: Migrating to Cloud Computing for Gains on Many Levels



Nearly two-thirds of companies adopt the cloud to highly improve productivity, innovation, and speed.

FOOTNOTES

1. "Mobile Application Developer Named 'Best Computer Job For The Future'," *prweb.com*, last modified May 30, 2012, www.prweb.com/releases/best-computer-jobs/mobile-developer/prweb9551422.htm.
2. Asheesh Raina and Laurie F. Wurster, "Market Trends: Application Development Software, Worldwide, 2012-2016," *gartner.com*, July 30, 2012, www.gartner.com/id=2098416.
3. "Gartner Says Cloud, Mobility and Open Source Will Drive Application Development Market to Exceed $9 Billion in 2012," *gartner.com*, last modified August 22, 2012, www.gartner.com/newsroom/id/2131115.
4. Carolyn Fitton, "Put Mobility to Work by Unleashing the Cloud," *sap.com*, last modified June 7, 2013, http://scn.sap.com/community/mobile/blog/2013/06/07/put-mobility-to-work-by-unleashing-the-cloud.

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The Business Case for Cloud-Based App Development

Organizations understand the business case for cloud-based services: decreased operational expenses, lower capital expenditures, and reduced management requirements. The cloud version of SAP Mobile Platform offers similar financial reward. The MaaS platform saves your business time and money, because you don't need to build, deploy, or support these services yourself for each mobile app you build.

Many companies are launching their enterprise mobility initiatives with one app and a small test group. Investing in an on-premise platform and infrastructure is expensive for these scenarios. A cloud-based platform is a much more cost-effective option for these early-stage initiatives. Companies can see how enterprise mobility impacts their business activities before investing heavily in mobile app development hardware and software.

The cost advantages of cloud-based mobile app development platforms are straightforward and clear. What companies often miss are the indirect benefits from a cloud environment. Time saved is one proven benefit, along with agility, flexibility, and faster deployment. You can also count on better reliability, collaboration, and innovation.

TIME SAVED

Nearly 50% of the 400 developers surveyed for the Evans Data Cloud Development Survey[5] reported that app development and testing in the cloud is saving them time, because they have a more streamlined development process where assets are online and available from the start of the project. The time savings is due to a couple of factors:

- Application builds start immediately, without delays for hardware and software to be shipped to and installed in a data center.
- Applications move quickly into production and can scale as needed.

Among the Evans Data study respondents, 38% of developers said app development time was reduced by 11% to 30%, and 10% said cloud-based development made them 30% more efficient. What happens when development time drops and developers are more efficient? Any number of valuable business improvements result, including:

- Developers have more time to improve the app's user interface and user-friendliness.
- Mobile apps go into production more quickly.
- Developers' time-to-build cycle decreases, allowing them to build more business and customer apps in a shorter time period.
- Developers release apps with more features and fewer bugs.
- After app launch, developers can focus on improvements and updates.

RELIABILITY AND AVAILABILITY

When the mobile app platform is in the cloud, developers gain a reliable, always-available development and testing environment. Developers often create their own customized development and testing environments that they support and manage. When this environment is in the cloud rather than on-site, they don't need to troubleshoot or provide tech support for the different systems and devices. The environment works as promised, and developers can focus on writing code and building apps.

The cloud environment also provides consistent testing scenarios. Developers can test across devices and on-premise or cloud-based back-end systems. The cloud-based platform provides always-available access for multiple developers in different locations in every time zone.

COLLABORATION

Collaboration is another boon for developers. Enterprises often have their development teams located in different offices across different regions or even continents. In these remote scenarios, developers can more easily collaborate because the cloud environment is consistent. Duplicate on-premise environments do not need to be created across multiple locales.

FOOTNOTE

5. "Evans Data Cloud Development Survey, Vol 2, 2012," *evansdata.com*, last modified August 2013, www.evansdata.com/press/viewRelease.php?pressID=196.

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Mobile Apps and the Cloud Go to Work

Companies are already experiencing the speed and responsiveness of cloud-based services and turning them into a business advantage. In a Beresford Research survey prepared for Oxford Economics,[6] 68% of respondents agreed that cloud services allowed IT to be a more strategic partner for the business. With cloud-based services at hand, IT has more resources available to enable new business initiatives and strategic projects (see Figure 2).

Based on the Oxford Economics survey cited above, organizations are not hesitating to adopt cloud-based applications. Approximately 53% reported that they are using cloud-based apps and services to give employees 24x7 mobile access to internal systems and real-time data (see Figure 3). Figure 4 shows that a majority of the companies (61%) have developed cloud-based offerings and replaced on-premise systems (53%).

Overall, the support for mobile app platforms in the cloud is almost unanimous, as only 5% say they have no plans to deploy a mobile app platform in the cloud. Many of the companies, 40%, already use a cloud-based mobile app platform in production, and 47% have launched managed service offerings.

Figure 2: Cloud Services – Moving IT into a More Strategic Partnership Position

... turned IT into a more strategic partner for the business	Strongly disagree	Count	17
		Percentage	8.5%
	Slightly disagree	Count	12
		Percentage	6.0%
	Neither agree nor disagree	Count	34
		Percentage	17.0%
	Slightly agree	Count	78
		Percentage	39.0%
	Strongly agree	Count	59
		Percentage	29.5%
	Total	Count	200
		Percentage	100.0%

Figure 3: 24x7 Access to Critical Business Functions via the Cloud

We have adopted cloud-based applications and services	Count	105
	Percentage	52.8%
We provide workers with mobile devices	Count	106
	Percentage	53.3%
We have instituted a BYOD program	Count	80
	Percentage	40.2%
We allow VPN connections from mobile devices	Count	83
	Percentage	41.7%
We have deployed one or more mobile apps	Count	87
	Percentage	43.7%
We have run a proof of concept for mobile apps	Count	40
	Percentage	20.1%
We are researching mobile app platform options	Count	36
	Percentage	81.1%
Total	Count	199
	Percentage	100.0%

Figure 4: Making Significant Improvements After Moving to the Cloud

We have replaced on-premise systems	Count	105
	Percentage	52.8%
We have developed new, cloud-based offerings	Count	121
	Percentage	60.8%
We have changed pricing	Count	79
	Percentage	39.7%
We have connected with partners via cloud services	Count	69
	Percentage	34.7%
Other	Count	0
	Percentage	0%
Total	Count	199
	Percentage	100.0%

FOOTNOTE

6. Carolyn Fitton, "Put Mobility to Work by Unleashing the Cloud," *sap.com*, last modified June 7, 2013, http://scn.sap.com/community/mobile/blog/2013/06/07/put-mobility-to-work-by-unleashing-the-cloud.

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Innovation in the Cloud

Executive management, boards of directors, and other budget-minded individuals thrive on statistics and analyst research. You can provide these people with the facts and figures that illustrate how a mobile development platform in the cloud reduces capital expenditure and operational expenses and saves time. The harder-to-prove advantage is the creativity and innovation that comes with the cloud and gives organizations that special essence that makes good companies great.

Many organizations see cloud services as a doorway to innovation, and they are putting cloud resources in the hands of research and development and innovators. Among the companies in the Oxford Economics survey, 59% of respondents relied mostly on the cloud for innovation and R & D. The flexible, cost-effective cloud supports successes and failures – which is exactly what creativity and innovation requires. Companies can support experimentation and innovation with very low investment. Developers are often among the most inventive individuals in a company. A cloud-based platform can spur the creativity needed to build innovative, valuable business apps for both customers and employees that contribute directly to the bottom line.

SAP® MOBILE PLATFORM FEATURE SET

SAP Mobile Platform offers the following key features:

- Supports native and hybrid applications for iOS, Android, Windows Mobile, and BlackBerry OS
- Supports business-to-enterprise, business-to-business, and business-to-consumer apps
- Provides IDE plug-ins for IDEs and frameworks such as Xcode, Visual Studio, Eclipse, Sencha, Appcelerator, Adobe, and so on
- Supports the standard OData format for data gathering via REST interfaces
- Offers centralized management, security and authentication, data encryption and synchronization, and online/offline support end to end
- Supports on-premise and cloud-based deployment options
- Offers prepackaged solutions via the SAP Store, as well as sample code and support via SAP Community Network

See how an on-premise platform compares to a cloud-based platform in *SAP Mobile Platform: Cloud Performance and Scalability*.

COMPELLING FACTS

According to analyst research:

- ✓ Cloud platforms reduce overall development time by an average of 11.6% due to a streamlined development process, such as moving development assets online quickly.[7]
- ✓ 48% of survey respondents report that app development and testing in the cloud saves them time; 10% said app development and testing in the cloud made them 30% more efficient, and 38% reduced app development time by 11% to 30%.[8]
- ✓ 90% of large enterprises and government agencies will use some aspect of cloud computing for designing, testing, and deploying mobile apps by 2015.[9]
- ✓ The application development software market is expected to grow from an estimated US$9.05 billion in 2012 to more than $10.28 billion in 2016, moderately driven by evolving software delivery models, new development methodologies, emerging mobile application development, and open-source software.[10]

7. "Evans Data Cloud Development Survey, Vol 2, 2012," *evansdata.com*, last modified August 2013, www.evansdata.com/press/viewRelease.php?pressID=196.
8. "Cloud based app development accelerates app creation," *xtremelabs.com*, last modified March 28, 2013, www.xtremelabs.com/2013/03/cloud-based-app-development-accelerates-app-creation.
9. Asheesh Raina and Laurie F. Wurster, "Market Trends: Application Development Software, Worldwide, 2012-2016," *gartner.com*, July 30, 2012, www.gartner.com/id=2098416.
10. Ibid.

Enterprises speed app development and unleash innovation with the mobile-as-a-service option.

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SEVEN QUESTIONS TO CONSIDER

Consider the following when evaluating a cloud-based versus on-premise mobile development platform.

How quickly do you want to get started?
A cloud-based mobile app development platform allows you to get your mobile apps developed and deployed quickly. You can begin developing your apps in days rather than months.

What features do I want to include in the mobile apps?
The cloud-based mobile app development platform has a subset of features of the on-premise platform. Consider the types of apps you are developing and the features you want. Some app features will require the on-premise platform.

Do you want to invest in mobile app development or infrastructure to accelerate your enterprise mobility initiatives?
Production and testing environments demand capital expenditures and operation expenditures. Hiring mobile app developers takes funds too. A cloud-based platform lets you delay an investment in hardware and software until you have a clear enterprise mobility strategy, or you have more insight into the adoption rate of your mobile apps. You can put your resources into hiring the best developers and, at the same time, ensure that they have a proven, reliable development platform that allows them to write and test their code efficiently.

How many mobile apps do you plan to launch during the next 12 to 18 months?
If you plan on launching three to five mobile apps in the next 18 months, a cloud-based mobile app development platform will deliver a higher ROI than investing in an on-premise platform. The good news is that if your mobile app program expands to include a half dozen or more apps, you can easily transition to an on-premise platform. Your developers will already be familiar with the platform, and they will continue to build and deploy innovative business and customer apps. The on-premise platform includes a broad list of robust features to support your enterprise mobility initiatives, and more important, the apps will run on the on-premise system without modifications.

Do you want to limit your infrastructure footprint?
Every data center has some element of sprawl and hardware that is not being optimized and adds to the overall management costs for power, cooling, connectivity, and general maintenance. Having a cloud-based mobile development platform keeps your footprint from expanding and prevents investing in underutilized platforms. Cloud-based platforms scale as your business grows, your mobile app population expands, and the user base increases. You don't need to forecast future growth; the additional processing power and bandwidth are ready and available as you need them.

Are you paying consultants to find errors with your app?
Engaging consultants is expensive. Your developers and mobile team need troubleshooting tools to simulate, optimize, debug, and find errors. When they have the resources to build the patch or fix the bug, you can significantly reduce those high-priced consulting fees.

What are your short-term and long-term mobile app plans?
Organizations that expect to support six or more mobile apps within the year, or intend to build mobile apps going forward, may be better served to invest in an on-premise platform. A cloud-based option will continue to eliminate operating expenses, but you will want to take advantage of the platform's full feature set if enterprise mobility is a major element of your long-term strategy.

FOR MORE INFORMATION

To learn more, please call your SAP representative or visit us online at www.sap.com/mobileplatform.

The flexible, cost-effective cloud supports successes and failures – which is exactly what creativity and innovation requires.

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