

Appcelerator / IDC

# Q1 2012 Mobile Developer Report

A platform interest survey of 2,173 Appcelerator application developers from Jan 25-27, 2012



**The Google and Facebook Battle Moves to Mobile While HTML5 Gains Speed**



# Q1 2012 Mobile Developer Report

## Summary

Appcelerator and IDC surveyed 2,173 Appcelerator Titanium developers from January 25-27, 2012 on their plans and development priorities, and to further explore those answers, did a follow-up survey of 484 of these respondents between February 21-23. The surveys focused on their plans and perceptions around HTML5, social capabilities, and developers' priorities for 2012 compared to 2011.

Key findings reveal that HTML5 will play a growing role in the mobile apps space in 2012, with 79% of developers saying they plan to integrate some HTML5 into their mobile apps that they build this year. This quarter's survey also uncovered very different perceptions among developers regarding the emerging social battle between Facebook and Google. Thirty-nine percent (39%) of developers say that the network effects of Google's broad range of assets are more important to their social strategies in 2012 than Facebook's social graph. This relatively high indexing of Google against Facebook is striking given Facebook's nearly 900M users and the excitement surrounding its pending IPO.

Finally, developers continue to move toward a maturation of their mobile strategies: in the direction of Acceleration and Innovation and away from the initial stage Exploration. *(For more information about the Mobile Maturity Model, visit the Q1 2011 Mobile Developer Report at <http://www.appcelerator.com/company/survey-results/mobile-developer-report-january-2011>.)* This quarter's survey underscores that 2012 will indeed mark key shifts in platform strategies, how social will be leveraged, and how fast we may see those changes emerge in the marketplace.

## HTML5 Takes Its Place ...

The mobile app space to date has been dominated by native apps. However in 2012, HTML5 will move alongside native to take its place as a viable architecture for mobile applications. In addition to pure mobile browser apps, HTML5 will also exist in "hybrid apps," which will integrate both HTML5 and varying amounts of native code. As noted in the Appcelerator/IDC Q4 2011 Mobile Developer Report, the top four priorities of mobile developers in descending order of importance are: 1) deploying to more platforms, 2) increasing both ease of use and 3) performance through native interfaces, and 4) reducing time to market. A single mobile application architecture generally cannot answer all of those needs simultaneously.

	NATIVE APP	HYBRID APP	MOBILE WEBSITE
<b>DEFINITION</b>	Native app code and data	Native code wrapped around HTML	Mobile browser access to HTML
<b>CODING LANGUAGE</b>	Java, Objective-C, etc.	JavaScript (native portion) + HTML5 (WebView)	HTML5
<b>PROS</b>	Native UI Full platform capabilities Substantial code reuse	Semi-native UI	Full code reuse Single app experience
<b>CONS</b>	Limited to no code reuse	Limited native API access Sub-optimal performance	Limited offline functionality Inferior UI

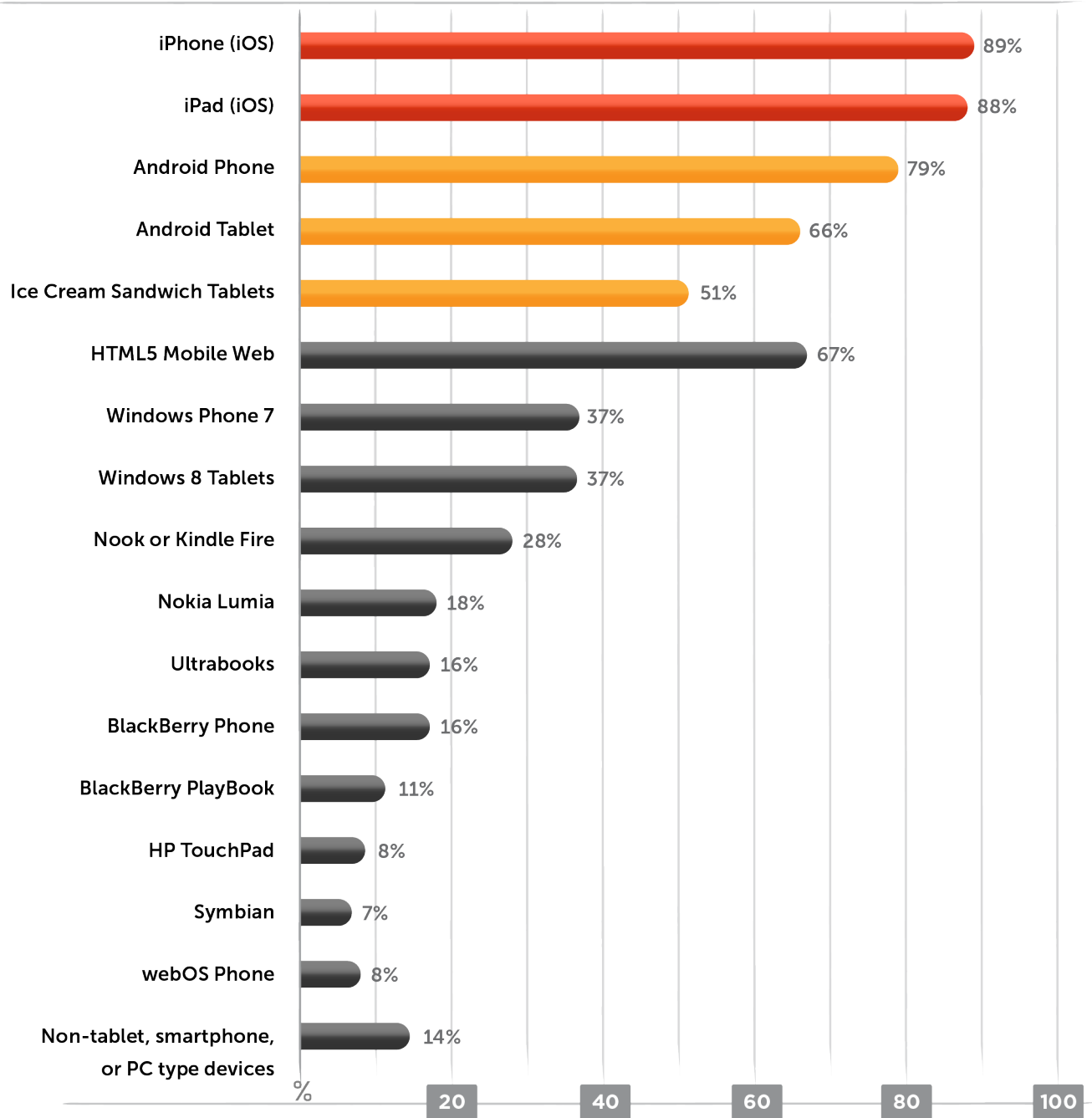
## Google Strongly Positioned to Battle Facebook in Social Mobile War

Facebook is one of the most popular social apps in the world with 425M+ mobile users and a total user base approaching 900M, dwarfing Google+ on almost every metric. Therefore it might be expected that Facebook would be vastly more important to social strategies in 2012 than Google. However, mobile app developers see the world differently, with potentially significant impacts to how social plays out in the mobile space, especially for the next billion social users. In this quarter's survey, 39% of developers say the network effects of Google's total assets (like Google+, search, Gmail, Android, Android Market, etc.) are more important to them than Facebook's social graph. This response rate compares exceptionally high given Facebook's enormous lead in social. This translates into a big competitive opportunity for Google—and potential competitive risk for Facebook—especially as developers perceive Google innovating faster than Facebook.

Key findings of the Q1 2012 Appcelerator/IDC Mobile Developer Report include the following:

- **HTML5 becomes important to many mobile development strategies.** A resounding 79% of mobile developers report that they will integrate some HTML5 in their apps in 2012. This is much higher than many industry observers had anticipated as late as Q4 2011.
- **Developers are struggling to understand and leverage Facebook's social graph.** Leveraging the full social graph itself ranked low - tied at 8th out of 11 social priorities for developers, while developers' top uses of social remain notifications, status updates and authentication.
- **Google's network effects of its vast assets are a key strategic differentiator against Facebook.** Google's footprint across its assets (search, advertising, YouTube, Gmail, Android, Maps, etc.) and its resultant network effects is indexing much higher than expected relative to Facebook, given the size of Facebook's massive lead in social.
- **Mobile app development continues to accelerate in 2012.** More than half (53.7%) of respondents report that they are now focused on accelerating their mobile strategies compared to 27.4% in 2010, and 16.7% of respondents report that they will be focused on innovating their mobile apps in 2012 compared to 9.2% in 2010.
- **Windows Phone 7 interest remains high.** WP7 is the clear "number three" OS in terms of priorities, after Apple's iOS and Google's Android. The huge jump in interest in Q4 2011 for that OS is holding steady notwithstanding somewhat disappointing WP7 device sales to date.
- **This quarter saw another sharp drop in developer interest in BlackBerry OS.** Developer interest declined from 20.7% in Q4 2011 to 15.5% in Q1 2012, set against negative news around RIM's challenges.
- **iOS continues to reign at number one in developer interest levels.** Eighty-nine percent (89%) of respondents say they are very interested in developing for the iPhone, followed by the iPad at 88%.
- **Android phones and tablets are showing slow erosion of interest levels.** This quarter, interest in Android phones dropped 4.7% points to 78.6%, and Android tablets dropped 2.2% points to 65.9% from the previous survey. Although close to or within the margins of error, these drops are consistent with the trend of small but steady erosion in Android interest over the last four quarters, even as enormous growth in Android unit shipments continues.
- **Location and notifications are the top two cloud services developers are looking to in order to scale their mobile initiatives.** Developer interest in cloud services is strong, with location and notifications the top two services that developers want to integrate into their applications.

## 'Very interested' in developing for each platform



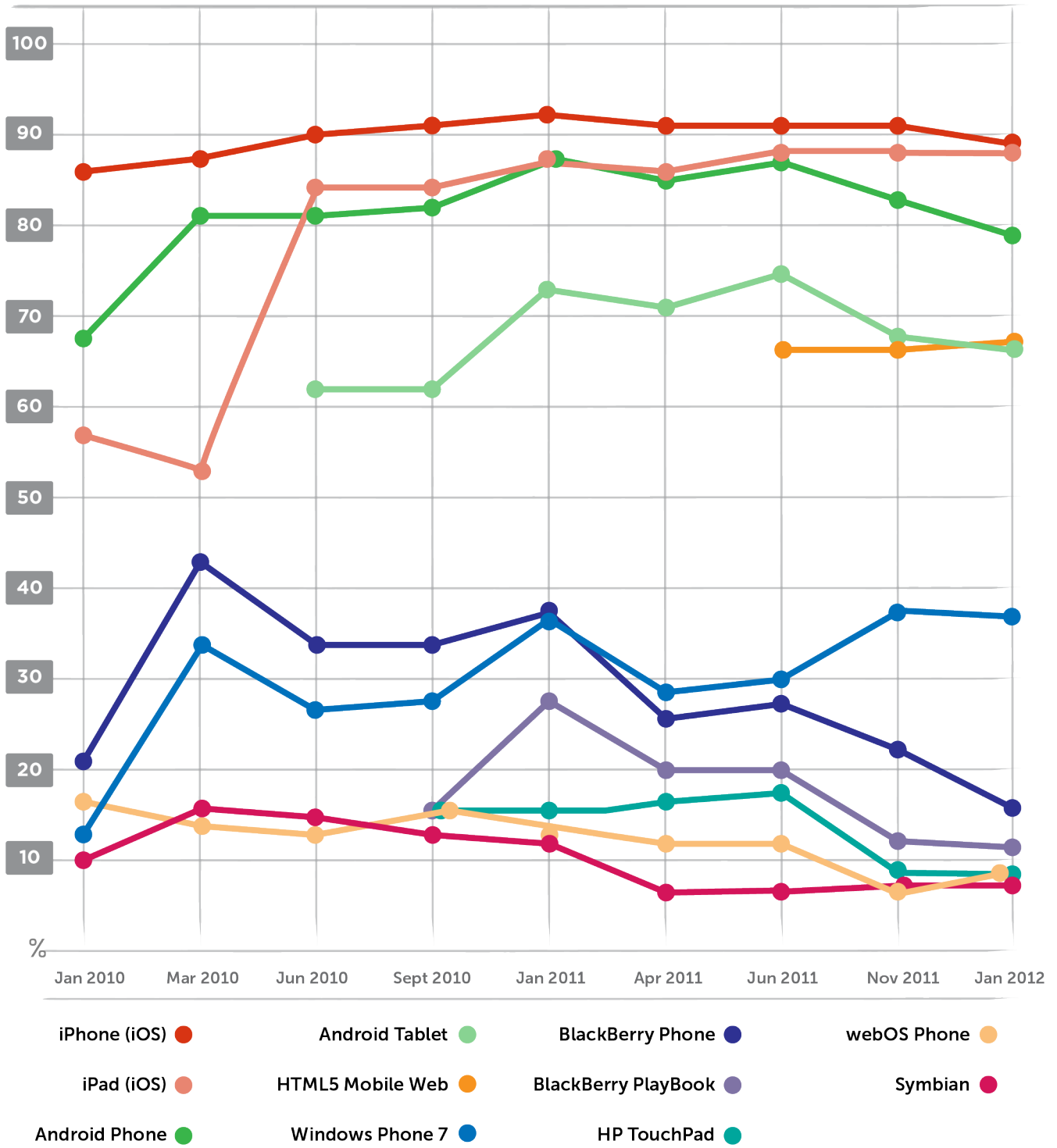
N=1869 responses

Source: Appcelerator / IDC - 01/2012



'Very interested' in developing for each platform

2010-2012 Comparison: iOS Continues its Reign at the Top



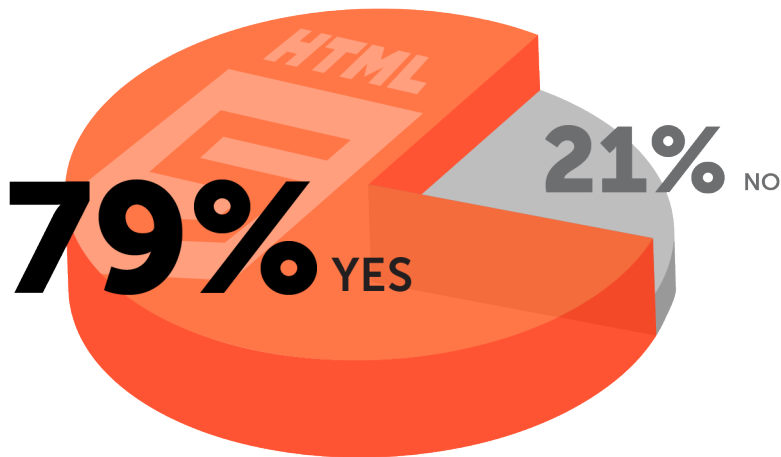
N=1869 responses

Source: Appcelerator / IDC - 01/2012



## Do you plan to integrate HTML5 as a component into the mobile apps you plan to build in 2012?

### HTML5 Plans for 2012



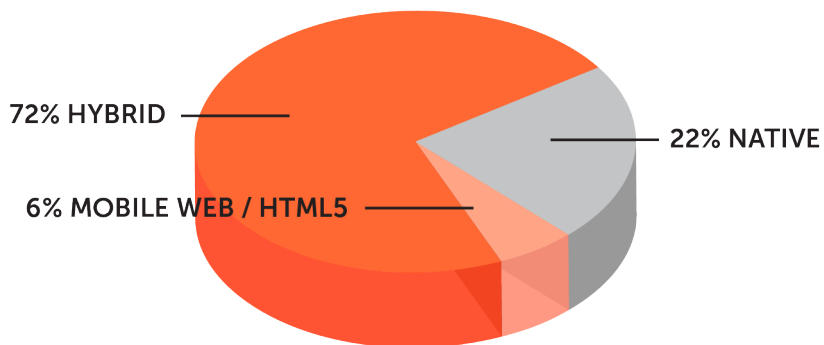
N=485 responses

Source: Appcelerator / IDC - 01/2012



However ...

### Only 6% of respondents will develop their entire app with HTML5 code



N=336 responses

Source: Appcelerator / IDC - 01/2012



## HTML5 Gains Momentum

Developer interest in HTML5 soared in this year's survey, with fully 79% of developers expressing an expectation that they will use HTML5 in their mobile application development efforts. However, even more interesting is the amount of HTML5 that developers expect to use in their application development efforts. Specifically, most developers in the survey expect to use 50% or less HTML5 in the individual applications, with less than 6% expecting pure HTML5 browser-based applications. Mobile applications cover a spectrum of different architectures. With native applications comprised of pure native code running on the device, hybrid applications with limited amounts of native code and HTML5 providing content and pure browser applications with 100% HTML5 content and code running the application.

Each of these architectures offers different qualities, performance, and reusability: no one architecture will be able to meet all of the application requirements the developer has. Consequently developers must choose the best architecture for the tasks the mobile application is meant to accomplish. We believe, and developers clearly agree, there will not be a single mobile application architecture. Instead developers must be conversant in a number of different mobile application architectures in order to produce the most compelling applications for their use case. This quarter's survey shows that developers are clearly expressing a preference for hybrid — an approach that can simultaneously meet multiple objectives.

## Android Slips

We observed relatively minor shifts in developer interest around iOS, Android, Microsoft, and others from last year's fourth quarter survey. However, when we look at the trend line over the past year some interesting patterns emerge. In Q1 2011 Android was nearly neck-and-neck with iOS in terms of developer interest. Among developers, Android in both tablet form and smartphone, held almost as much interest as iPads and iPhones. In the past year, developer interest in both Android platforms has begun to wane, not significantly from quarter to quarter, but noticeably enough to create the above trend line over the course of the year. We believe this is mostly due to the fragmentation Android continues to experience and that Google seems unable to curtail, and the continued success of Apple's iPhone and iPad. This fragmentation, coupled with iPads continuing to outsell all Android tablets combined, has swayed developers increasingly towards iOS and away from Android.

## Good News for iOS

Compared to all of the other platforms, iOS remains the highest platform of interest for developers, with 89% of developers very interested in building applications for iPhone and 88% for iPad. This reflects Apple's massive success with iPhone and iPads, coming off the best quarter in company history.

## Competitor Challenges

Also interesting are the significant shifts we saw in some of the less popular platforms. HP's TouchPad saw drop off in developer interest, despite the uptick in sales the platform experienced due to the pricing cuts, and lack of consistent messaging around future support of the product undoubtedly influenced developer opinions. Also falling off significantly was developer interest in both RIM's PlayBook and BlackBerry phones. Obviously the massive press coverage of the Waterloo-based company's problems may have affected developer opinions (11% to 16% respectively).

## Companies Progress in Their Mobile Maturity

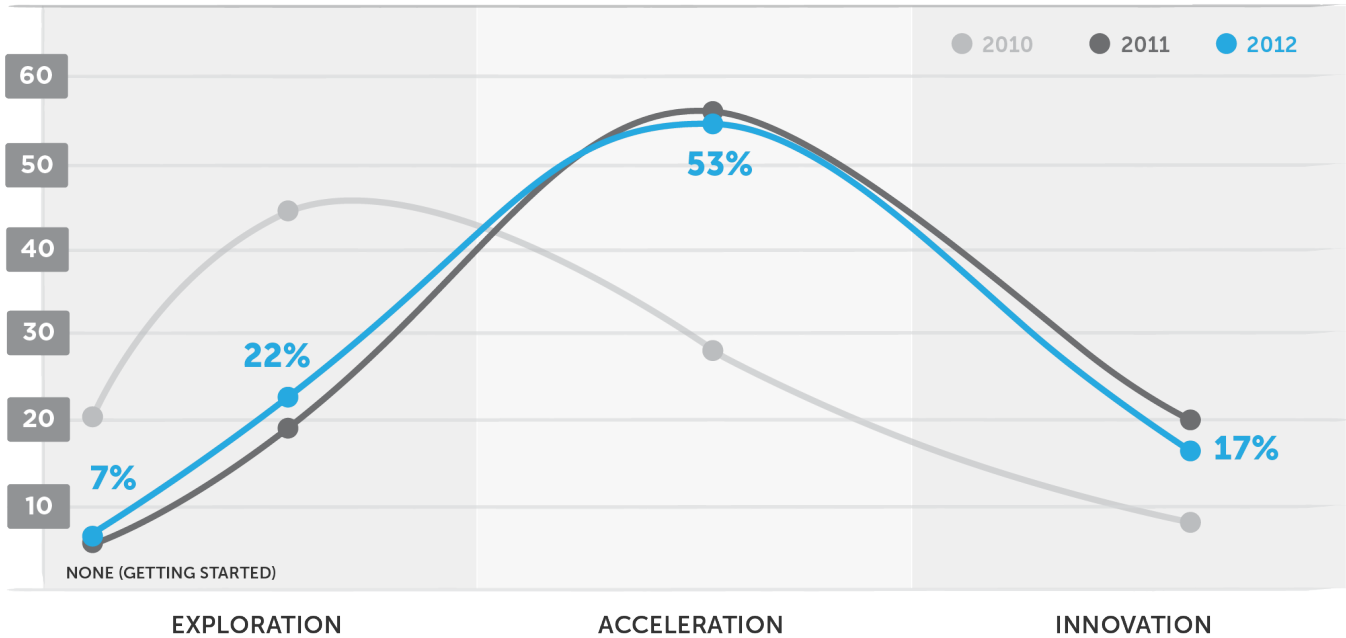
In last year's Q1 2011 mobile developer survey, we asked developers to characterize where they were in their mobile application strategy, as either Exploring, Accelerating, or Innovating. In 2010 they were clearly in the Exploration phase, but the expectation was that in 2011 they would be very much entering the Acceleration phase. This quarter a majority of respondents believe they are clearly in that Acceleration phase now, with the expectation that they will be building multiple applications on a number of different operating systems.

We have found that it takes a number of years for the developer to fully explore all of the options available within the mobile application environment. When we overlay this opinion with the growth that we saw in the number of developers that were expecting to develop more than five applications and cover multiple operation systems, it's clear the Acceleration phase is well underway.

Throughout the survey, messages of a gradually maturing market permeate. Growth in the number of developers building mobile applications, growth in the number of operating systems and applications supported, and growth in the size of companies that are building mobile applications are all evidence of this maturity. Lastly, when we begin to look at the makeup of the teams building these mobile applications, we see increasing numbers of hybrid approaches (both internal application development teams combined with external application development teams) represented in

## How would you generally categorize your company's mobile application development strategy for 2012?

### Developers Remain Consistent in Their Mobile Maturity Expectations



N=486 responses

Source: Appcelerator / IDC - 01/2012



## Do you plan to write applications that would go into a private enterprise application?

### Significant Amount of Developer Interest in Enterprise Application Stores

# 39% YES

N=717 responses

Source: Appcelerator / IDC - 01/2012



With increasing numbers of enterprises adopting mobile applications to communicate with their employees, enhance business processes, and streamline customer interactions, enterprises continue to struggle with distributing those applications to their employee and enterprise owned devices. A new class of vendors has emerged the past 18 months, the Enterprise App Store. Simultaneously, some existing mobile device management (MDM) vendors have enhanced their capabilities to compete and offer similar functionality. Both promise to deliver mobile applications to a variety of different devices regardless of ownership. Striking results from the survey indicate that as young as this particular market is, fully 39% of our developers will be writing applications to go into those enterprise app stores. We will examine this further in follow-up reports.

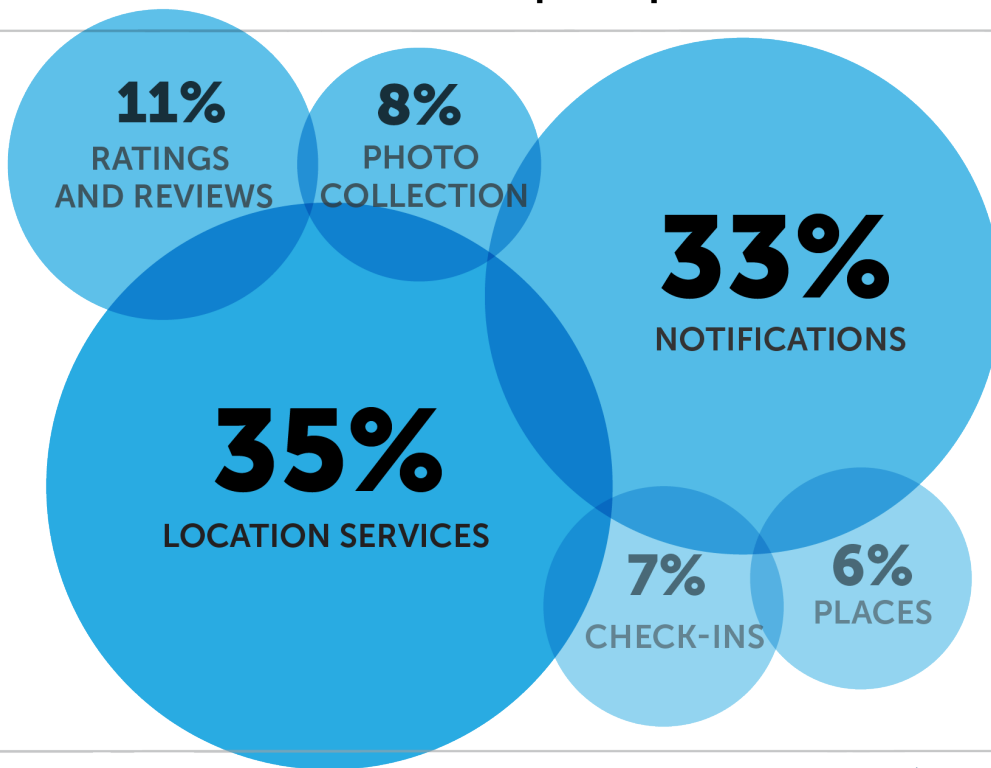


## Cloud Services Take Hold to Scale Up Mobile Initiatives

Among the cloud services that most interested developers to scale up their mobile initiatives, locations and notifications remain 1 and 2 respectively. Fully 35% of respondents tout location as the service that holds the most interest and 33% of respondents specified notifications. This feedback echoes what we've seen in previous surveys in terms of the popularity of notifications and location. We expect increasing numbers of developers to look upon cloud services for the extension of their mobile applications, due to the ease of integrating them, and the inherent scalability of cloud-based location and notification solutions.

What are the top new or existing cloud-based services you plan to connect or extend?

### Cloud Services Developers Expect to Use in 2012



N=585 responses

Source: Appcelerator / IDC - 01/2012



## New Social Battle: Google Network Effects vs. Facebook Social Graph

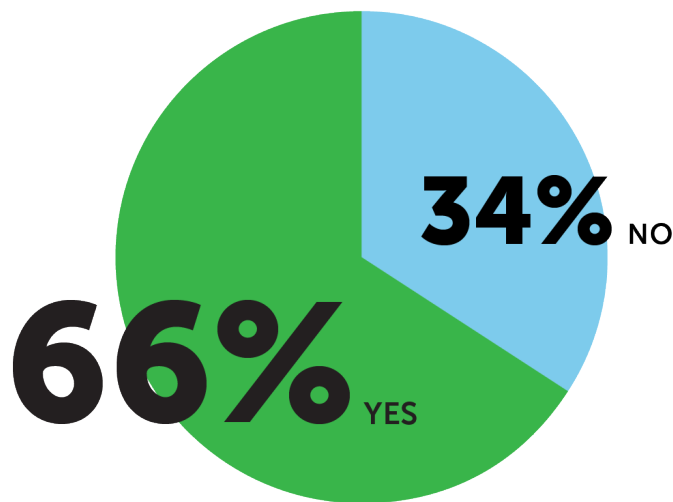
The Q3 2011 Appcelerator/IDC Mobile Developer Report uncovered a headline finding: 66% of mobile app developers believed that Google+ could catch up to Facebook. When we probed deeper and asked those developers why they thought Google+ could catch up to Facebook, 68% said it was because Google's total assets (its network effects) trump Facebook's social graph.

In the Q1 2012 survey, we asked developers what was more important to their social strategies in 2012: Google's network effects or Facebook's social graph. At first glance it would seem that Facebook's social graph wins definitively over Google's network effects at nearly 60/40. However, IDC and Appcelerator note that Google's network effects compare exceptionally high at 39%, given that Facebook is not only approaching 900M users and over 425M mobile users, but also coverage of Facebook's pending IPO. Google's high indexing is especially noteworthy given that Facebook beats Google+ by huge margins on most metrics.

Developers perceive something that many observers don't: Google's assets are often more immediately valuable and/or more easily integrated than Facebook's social graph. Google offers the combined network effects of search, YouTube, Gmail, Google Maps, Android, Android Market, Google Docs, AdMob, and now Google+. One example of how large Google's footprint is includes Google Maps, which is prominently preloaded onto iPhones and virtually all Android devices, and therefore increasingly integrated into iOS and Android apps. YouTube is commonly integrated into mobile apps and is often cited as one factor contributing to mobile network capacity constraints. With 200M+ Android handsets and tablets shipped in 2011, Google itself is clearly gearing up to leverage its network effects, noting that its privacy policies have recently changed to allow sharing of user data across its services.

### Can Google+ catch up to Facebook?

#### Google+ Posing Strong Competitive Challenge to Facebook with Developers



N=1,621 responses

Source: Appcelerator / IDC - 07/2011



What do you think will play a bigger social strategy role for your company in 2012, Facebook's social graph or the network effect of Google's assets?

## Facebook vs. Google

**61%**

FACEBOOK'S SOCIAL GRAPH

**39%**

GOOGLE'S ASSETS NETWORK EFFECT  
(Google+, search, Gmail, YouTube, Android, etc.)

Why Facebook?		Why Google?	
The size of Facebook's installed base	<b>90%</b>	The size of Google's installed base using its products	<b>65%</b>
Facebook is being baked into so many other companies' offerings	<b>42%</b>	Google will be able to bake Google+ into Android	<b>46%</b>
Google's assets are not integrated well enough yet for me to leverage Google's network effects	<b>23%</b>	Google's APIs are easier to integrate	<b>45%</b>
Facebook's APIs are easier to integrate	<b>22%</b>	Google is innovating faster than Facebook	<b>45%</b>
Facebook is innovating faster than Google	<b>20%</b>	I don't understand Facebook's mobile strategy	<b>34%</b>
I understand Facebook's mobile strategy	<b>16%</b>	I don't know how to fully leverage Facebook' social graph	<b>22%</b>

N=450 responses

Source: Appcelerator / IDC - 01/2012

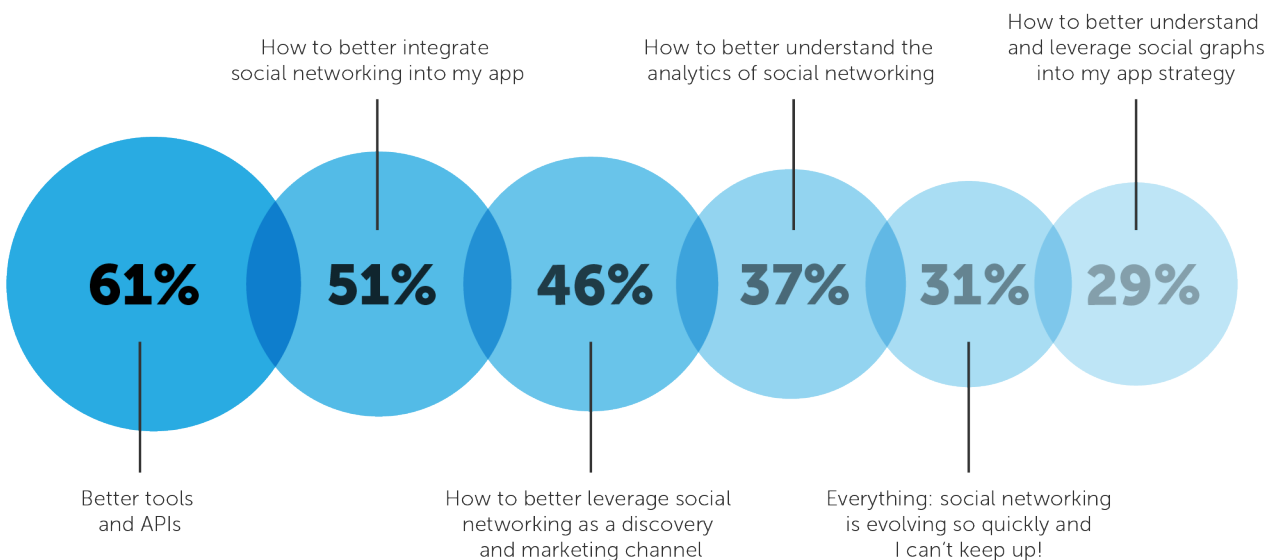


## Developers' Top Social Need is Better Engagement Mechanisms

For all the excitement and opportunities that social networking has created, it is clear as of Q1 2012 that mobile developers don't feel they have the knowledge or the tools to fully leverage social in their app strategies. This in turn creates enormous new opportunities for established players like Facebook, LinkedIn, and RenRen, as well as for challengers like Google and even Apple, to focus on better engaging developers in terms of education and tools in order to further contribute to their financial success.

### What would you like to know more about regarding social networking?

## 61% of Developers Say They Need Better Understanding of Social Networking



N=444 responses

Source: Appcelerator / IDC - 01/2012



**Tools:** Sixty-one percent of developers report that their number one social need is better tools and APIs. This indicates that current tools and APIs available to developers are either not robust enough, too difficult to use, and/or not fully understood.

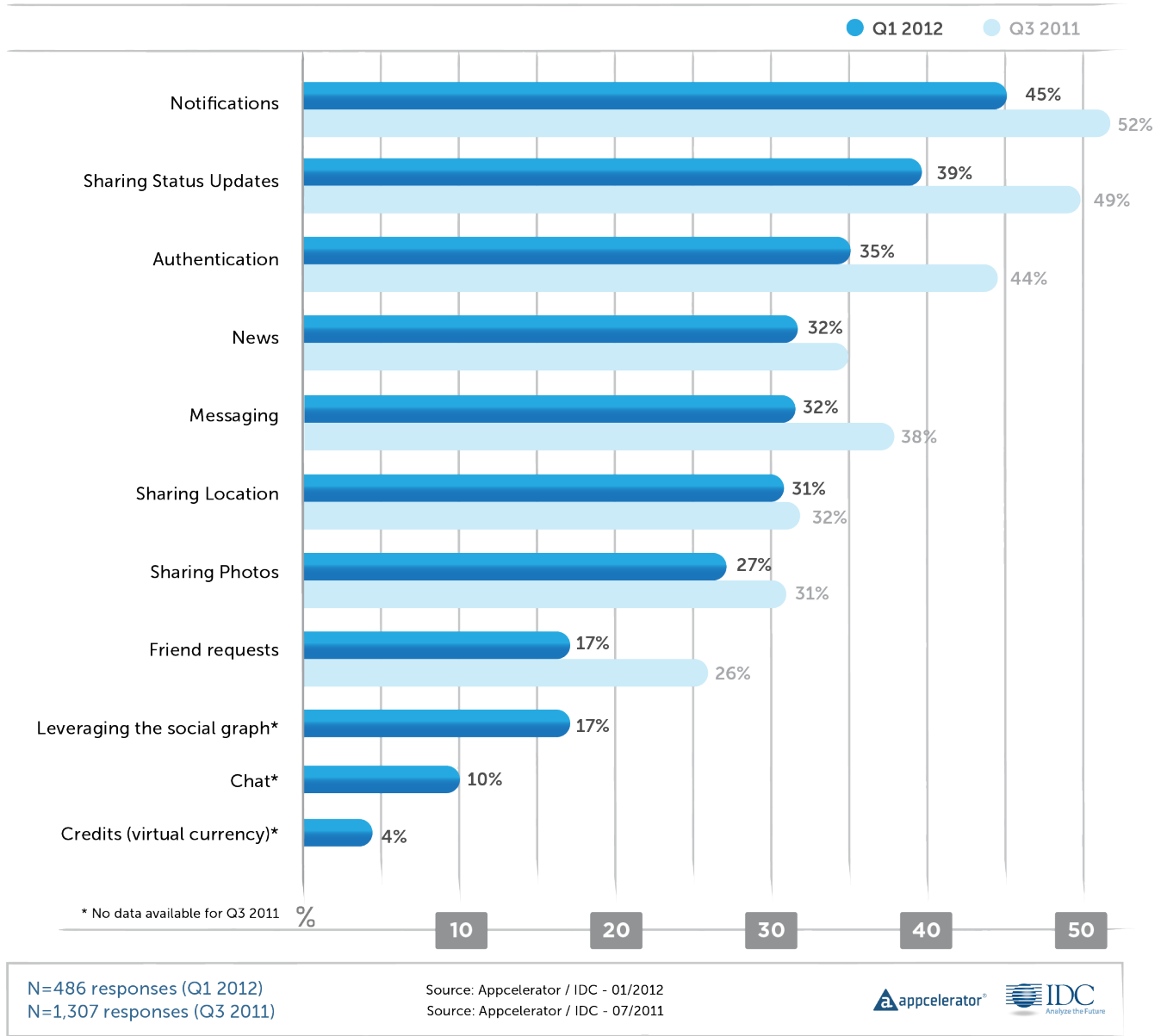
**Integration Strategy:** Fifty-one percent of developers report that they need to understand how to better integrate social into their apps. For the most part, developers are left on their own to figure this out, as demonstrated by the relatively limited ways developers primarily use social in their apps today and their expressed needs for better engagement mechanisms.

**Discovery and Marketing Channel:** Forty-six percent of developers report that they would like to know more about how to leverage social as a discovery and marketing channel, which is one of the most important developer needs for the social graph.

Some of the most striking survey results in comparing the Q3 2011 Appcelerator/IDC Mobile Developer Report and this quarter's report are how developers currently use social in their mobile apps. Social uses are generally unchanged over the last six months and relatively simplistic compared to the total promise of social. The top three use cases in Q1 2012 remain the same as in Q3 2011 and are in descending order: 1) notifications, 2) status updates, and 3) authentication. Friend requests for apps and leveraging the full social graph itself tied at 8th in Q1 2012, nearly identical results to Q3 2011. While it can be pointed out that notifications and status updates are components of the social graph—and indeed there is often some confusion as to what the social graph exactly is—it is clear that developers don't completely understand the full potential of the social graph in the way it typically matters most to them: gaining and more deeply engaging users.

## What do you primarily use social networking for in the apps you develop?

### Social Graph Under Utilized; Not Even a Top 5 Priority Use for Developers



## Social Networking Knowledge Needs are Growing – Not Shrinking

As a result of enormous social networking growth in the last two quarters, Appcelerator and IDC have observed that the social networking needs of the mobile developer community are also growing over time, especially as the effects of social continue to be felt. As the chart below indicates, fewer respondents in Q1 2012 than in Q3 2011 indicated that they understood how to use social networking in their apps “very well” (24.9% vs. 31.0% respectively), and more respondents in Q1 2012 than in Q3 2011 reported that they understood it “not too well” (25.5% vs. 18.5% respectively).

This again underscores the need of social providers to develop better education and engagement mechanisms for developers to help them better realize the promise of social in their apps. In doing so, social providers will realize the benefits of deeper engagement with developers and deeper integration with the mobile apps that are constantly changing human behavior and impacting business models in almost every industry sector.

**How well do you feel that you understand how to use social networking in your app strategy?**

### Developers Still Grappling to Understand Social

	JULY 2011	JAN 2012
Very well	31%	25%
Somewhat well	50%	50%
Not too well	19%	25%

N=486 responses

Source: Appcelerator / IDC - 01/2012



## Concluding Thoughts

2012 marks the start of a new era of mobile competition. HTML5 is playing a central role with the widespread emergence of a complete app strategy that includes native, hybrid, and HTML5 apps. This in turn has larger implications on the number of OS platforms developers can economically reach, impacts to user data caps, as well as network capacity issues as more app functionality shifts to HTML5 browsers. In social, Facebook may have an enormous lead over Google, but mobile developers see big promise in Google’s network effects vis-à-vis Facebook’s social graph. There is also enormous opportunity for existing and new social players to better engage mobile developers who feel they lack the knowledge and tools to fully leverage the power of social in their apps. Finally, developers report a strong shift in 2012 from development strategies often focused on market exploration in 2011, to accelerating and innovating their app strategies in 2012. At the forefront of this acceleration and innovation: HTML5 and the social battle in mobile between Google and Facebook.

# About the Appcelerator / IDC Q1 2012 Mobile Developer Report

Appcelerator and IDC surveyed 2,173 Appcelerator Titanium developers from January 25-27, 2012 on their plans and development priorities, and to further explore those answers, did a follow-up survey of 484 of these respondents between February 21-23. The surveys focused on their plans and perceptions around HTML5, social capabilities, and developers' priorities for 2012 compared to 2011. Developers were individually invited from Appcelerator's user registration database to complete a web response survey. A raffle for a free iPad 2 was made and only one response per user was allowed. Respondents' answers were given freely with no other incentive or compensation for their participation.

Appcelerator developers represent a uniquely broad spectrum of backgrounds. Twenty-eight percent of respondents classify themselves as independent developers, with the other 72% coming from businesses. Appcelerator has a global audience, with 34% surveyed stating they live in North America, 38% in Europe, and 28% throughout the rest of the world. Note also that Appcelerator developers come from a web development background, so although they build applications with Appcelerator Titanium, they are used to working across multiple platforms.



## About Appcelerator

Appcelerator is the leading enterprise-grade, cross-platform development solution on the market today, with over 250,000 mobile developers using its software to power over 35,000 cloud-connected mobile, desktop, and web applications used on 40 million devices every day. The company's flagship offering, Appcelerator Titanium, is the only mobile cloud platform to enable fully native, cross-platform mobile app and HTML5 web development, from a single codebase. Appcelerator's customers can leverage their existing skills and open, industry standard technologies to decrease time-to-market and development costs, increase customer adoption and revenues, and enjoy greater flexibility and control. For more information, please visit [www.appcelerator.com](http://www.appcelerator.com).



## About IDC

International Data Corporation (IDC) is the premier global provider of market intelligence, advisory services, and events for the information technology, telecommunications, and consumer technology markets. IDC helps IT professionals, business executives, and the investment community to make fact-based decisions on technology purchases and business strategy. More than 1,000 IDC analysts provide global, regional, and local expertise on technology and industry opportunities and trends in over 110 countries. For more than 46 years, IDC has provided strategic insights to help our clients achieve their key business objectives. IDC is a subsidiary of IDG, the world's leading technology media, research, and events company. You can learn more about IDC by visiting [www.idc.com](http://www.idc.com).

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