

Mobile Development Of The App+ Ecosystem

Taking Apps From Good To Great To
Excellent

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Successful App+ Environments Are Achievable With Strong Alignment

In December 2016, IBM commissioned Forrester Consulting to evaluate “app+” environment strategies. This is the third installment in a series of thought leadership materials on the subject of app development best practices. In 2014, Forrester Consulting examined the impact of “good” or “bad” mobile applications on a company’s brand, revenue, and cost structure. In October 2015, Forrester Consulting followed up with a survey that focused on finding the difference between good and great apps. To further explore this trend, Forrester developed a hypothesis for this third installment that tested the assertion that enterprises need to embrace collaboration when creating their app+ environments, and CIOs and enterprise architects are critical leadership partners in connecting IT with non-IT teams in this endeavor.

In conducting an in-depth survey with 498 business/IT professionals, Forrester found that as enterprises develop and transform their app+ environments, collaboration across their entire ecosystem is essential to ensure success and win, serve, and retain customers during key mobile moments. This collaboration must be led by CIOs and enterprise architects (EAs) and must be consistent across all IT and non-IT lines of business.

KEY FINDINGS

Forrester’s study yielded three key findings:

- › **Bring IT and marketing/business teams into the conversation about integration ASAP.** When it comes to sharing digital/mobile integration responsibilities, there needs to be distribution between marketing and technology teams, though the bulk of the burden falls to technology. The majority of technology and marketing teams agree that they should be fully involved in the planning process from the beginning — 10% to 15% of technology and marketing teams feel they become involved far too late in the process. Involving both technology and marketing at the beginning of the process improves alignment on expectations, risks, and benefits.
- › **IT and marketing/business teams have varying perspectives on risks, which can lead to dangerously misaligned priorities.** Both the IT and non-IT perspective is valuable during the process of creating an app+ environment, but they can sometimes cause a split in the perception of risks and challenges. Technology teams are more concerned about challenges like security issues and technology moving too fast. Non-IT teams are more concerned with development taking too long and the current infrastructure not being able to support new devices. Similarly, while the technology team is bogged down in detailed technical work, they likely have a weaker grasp of the real business and organizational challenges. Non-IT teams see a lack of budget, skills, and metrics as more significant challenges than the IT teams, who are more concerned about a lack of accountability and transparency. Early involvement of both IT and non-IT helps to mitigate these differences and eases the process of integration, ultimately leading to better app+ environments and capturing more mobile moments.
- › **Deeply integrating digital/mobile customer data has a strong effect on how customers interact with brands.** The survey showed that enterprises that have fully integrated this data see nearly three times as many customers primarily interacting on mobile versus desktop. This higher level of mobile interaction leads these enterprises to see nearly 10 times more customers utilizing all aspects of their apps. Integrated enterprises have realized the benefits of fully integrating, yet they also know the real risks, which include increased costs and a loss in client experience scores. Companies that have yet to integrate *perceive* a loss of ground to their competition and the cost of maintaining separate systems as top risks of integration.

Integration Has Become The Norm, But Level Of Integration Makes A Difference

In August 2014, IBM commissioned Forrester Consulting to examine the impact of “good” or “bad” mobile applications. Then in October 2015, Forrester Consulting followed up with a survey that focused on finding the difference between good and great apps. Now that companies know what it takes to change their good apps to great apps, it is time for them to break free from siloed branded apps and capture customers’ mobile moments whenever they are with shared data. Creating an app+ ecosystem (“app+” means app+web, app+messaging, app+omnichannel, app+automation, and app+product) to drive customer obsession requires collaboration across IT, marketing, and business teams with the CIO and enterprise architect as the key leaders of collaboration. Our study showed that:

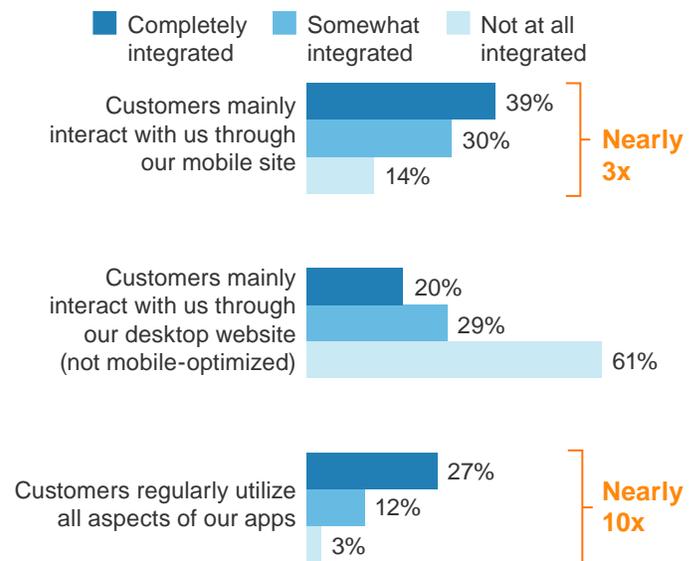
› **Integration of mobile/digital customer data affects customer brand interaction.** Eight-six percent of survey respondents said that their enterprise had either somewhat (59%) or completely (27%) integrated their mobile/digital data. Customers are split between interacting with brands primarily through mobile sites and desktop websites. This behavior drastically changes when you examine their behavior based on a company’s level of integration. Those companies that have completely integrated their customer data see a significant lift in customers who interact with their brand primarily on mobile sites, where companies that have not at all integrated see interaction mostly on desktop websites (see Figure 1). The remaining 14% of enterprises that have not all integrated are missing out completely on owned mobile moments and are losing ground to more forward-thinking enterprises that are capitalizing on this key time in a customer’s day. (Forrester defines a mobile moment as a point in time and space when someone pulls out a mobile device to get what they want in their immediate context.¹) Your best customers will not only take the time to discover, download, install, and configure your app, but they will trust you enough to share data or context that allows you to better serve them. Owned mobile moments are your best opportunities to win, serve, and retain customers.²

› **It is never too soon to bring both marketing and IT teams in to the conversation about mobile integration.** Eighty percent of survey respondent agreed that technology teams are brought in too late or should be fully integrated into the planning process from the beginning. This sentiment is echoed by marketing teams, with 78% feeling the same about the integration process. Delaying the marketing/business and IT teams’ input and access from the beginning can contribute to the siloed nature of branded applications. Bringing in both technology and marketing teams means stronger alignment during the integration process, lessening operational, technological, and messaging hurdles on the back end of the process.

FIGURE 1

Level Of Integration Affects The Way Customers Interact With Your Brand

“To the best of your knowledge, how do your customers primarily interact with your brand on digital/mobile devices?”



Base: 498 director+ business or IT professionals responsible for digital/mobile technology or marketing/business at their organization
Source: A commissioned study conducted by Forrester Consulting on behalf of IBM, October 2016

- › **Mobile integration sets companies up to win in the age of the customer.** The previous commissioned papers about good and great apps showed that mobile users are savvy and know the difference in quality of apps, while this survey shows that app+ ecosystems can lead to improved customer experience and loyalty by providing users a consistent experience wherever their data is shared. The benefits don't stop with customer experience. Companies that are integrating anticipate improved employee experience, lower operational costs, and improve process efficiencies. All these benefits add up to companies being better able to win, serve, and retain customers and own more mobile moments. The mobile mind shift is more than just an evolution in development platforms — it's an expansion of the customer journey from consisting of standalone interactions to becoming the choreographer of an ecosystem of experiences. This demands collaborative engagement with business peers and creates a direct relationship with customers and employees.³
- › **Marketing and technology teams share many responsibilities, but technology still takes the brunt of the weight when integrating.** Digital/mobile responsibilities can and often should be shared equally between the marketing and IT teams to ensure continuity throughout the integration process. The truth is that technology teams take the brunt of the weight. Given the technical nature of integrating digital/mobile client data, technology teams are best equipped to bear these responsibilities. For their part, digital business and marketing professionals must excel at driving both adoption and engagement. The survey respondents agreed that the top three responsibilities shared equally between the marketing and technology teams are:
- Setting the strategy for customer-facing digital/mobile investments.
 - Selecting digital marketing/business solutions and setting the overall digital strategy.
 - Funding the development of customer-facing mobile applications.

Ideally, an app should be essential to a customer. At a minimum, apps should be convenient. Too many digital business and marketing professionals are caught in doom loops. They don't invest in great experiences. As a result, ROI is poor, and thus, they continue to underfund mobile efforts. Marketing decision-makers who have a technology budget spend an average of just 11% of that budget on mobile marketing technology.⁴

There Is A Disconnect Between IT And Non-IT About The Complexity Of Integration

Integrating digital experiences comes with a set of risks that vary in severity and bottom-line impact. Risks are inherent with this type of technology change, where the real challenge lies in getting both IT and non-IT teams to align on the greatest risks and priorities. Misalignment occurs not only between lines of business but also between enterprises at varying levels of integration. Companies that have partially integrated or fully integrated have a practical understanding of the risks, while those that have not integrated at all see only perceived risks. The one area of universal agreement is that the greatest risk associated with integrating digital experiences is a decline in customer experience scores. The study showed:

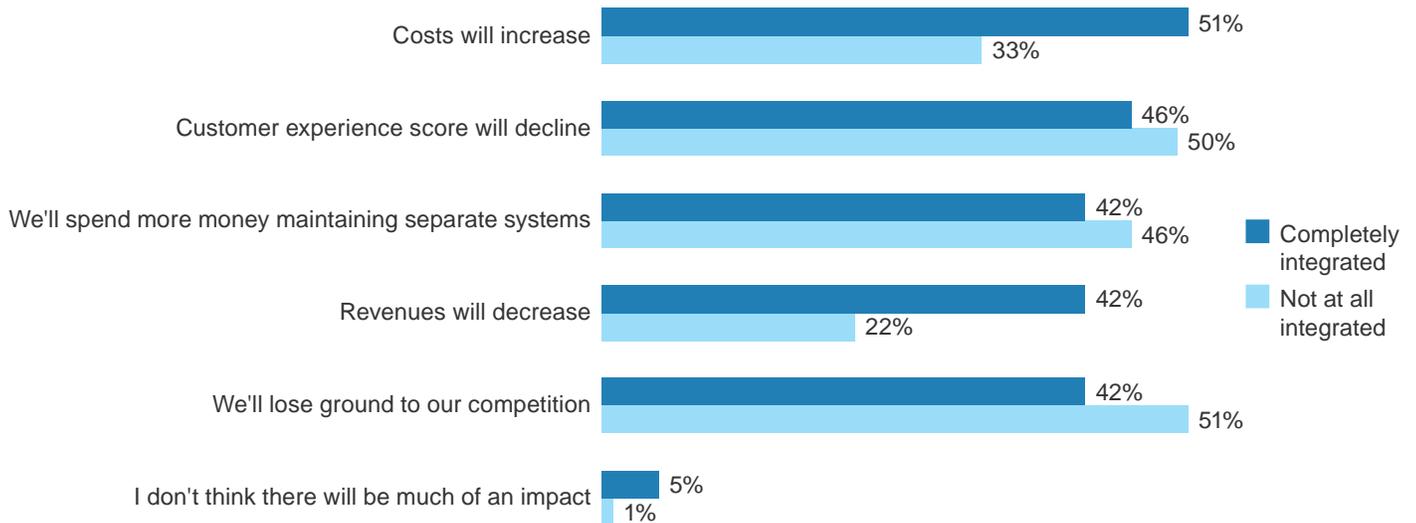
- › **A lack of defined success parameters leads to misaligned risk assessments.** IT doesn't have a good grasp of business success criteria, and non-IT teams lack technical expertise. This division in worldviews means they each incur different risks. Over half of both teams agreed that declining customer experience (CX) scores is the most serious risk associated with integrating their app+ ecosystems. In second place for non-IT teams is losing ground to their competition; for IT teams, it is increasing costs. Business teams don't understand the cost of integration in time, resources, and money. Along those lines, IT teams feel that a decrease in revenue is a greater risk than non-IT teams, given their knowledge of true success criteria.
- › **The challenges of integration also cause misalignment between IT and non-IT teams.** Business teams do not have the technical expertise to fully understand the intricacies of integrating digital experiences, nor should they. This gap in knowledge means that business teams have a skewed perception of the real challenges to integration. Business teams also see a lack of sufficient budget as the top challenge (42%), when only 36% of IT teams say this is a challenge. In addition, business teams see a lack of skills on the team as a significantly higher challenge (40%) than the technology teams (33%) do. That isn't to say that IT teams don't see budget and evolving skillsets as a challenge — they do, but they also see challenges with a lack of accountability and transparency. IT is often left

holding the blame for delays and additional costs, so they prefer transparent processes and stronger accountability.

- › **Perceived levels of risk vary, leading to contrasting priorities.** Misalignment is equally clear when you look at companies that have fully integrated versus those that haven't integrated at all. Fully integrated companies know the risks of integrating digital experiences, and for them, the top known risk is an increase in cost. Change costs money, and they have had to spend it on their integration. However, only a third of companies that have yet to integrate perceive increasing costs as a risk, when the reality is that costs will go up. Companies that have yet to integrate perceive losing ground to their competition and declining customer experience scores as their top risks. In reality, only 42% of fully integrated companies lost ground to their competition (see Figure 2).
- › **Security issues top the list of technology challenges.** As companies work to fully integrate their app+ environments, they face a number of technology challenges. Firms need to keep security top of mind as they integrate their digital applications, as keeping customer data secure is critical. Survey respondents agreed that IT and non-IT lines of business bring competing priorities to the table, once again highlighting the need to bring both teams into the integration process from the beginning for alignment (see Figure 3). Other technical challenges fall more firmly on the IT teams' shoulders, such as a lack of an integrated development architecture/platform or legacy systems that cannot integrate because they cannot access back-end data.

FIGURE 2
Fully Integrated Companies Know The Risks Of Integration

“What are the possible risks of not integrating and supporting digital experiences in your organization?”

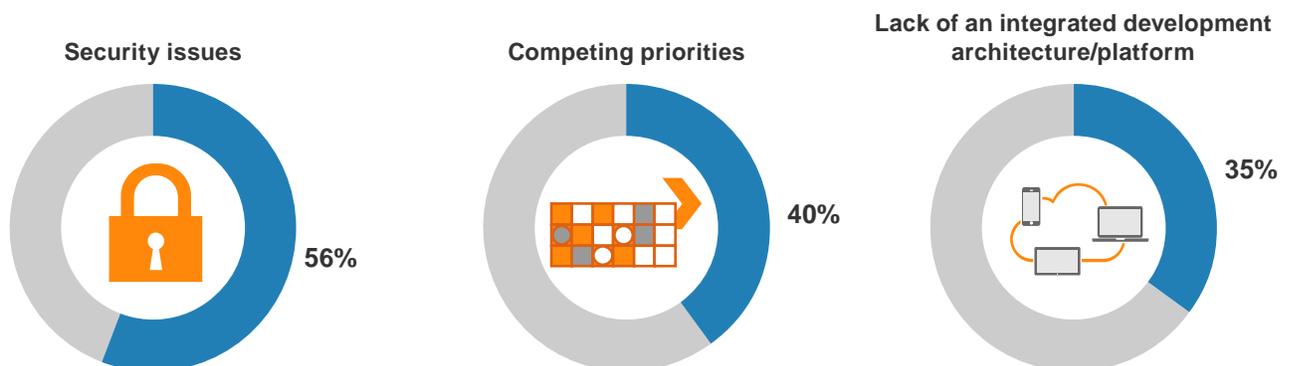


Base: 498 director+ business or IT professionals responsible for digital/mobile technology or marketing/business at their organization

Source: A commissioned study conducted by Forrester Consulting on behalf of IBM, October 2016

FIGURE 3
Technology Challenges Must Be Addressed As Firms Integrate Their Digital App Environment

“Which of the following technology challenges has your organization encountered while working on creating a fully integrated enterprise digital app environment?”



Base: 498 director+ business or IT professionals responsible for digital/mobile technology or marketing/business at their organization

Source: A commissioned study conducted by Forrester Consulting on behalf of IBM, October 2016

Narrow The Gap Between IT Deliverables And Marketing Needs

Forward-thinking enterprises separate themselves from the pack by avoiding misalignment roadblocks and bringing IT and non-IT into the integration planning process from the beginning. This allows IT to voice technical concerns upfront and gives marketing/business teams an opportunity to align their priorities within realistic architecture. Having the IT and marketing teams aligned earlier in the process led by the CIO and EAs can help mitigate risks and challenges like information security issues and increased costs while improving transparency and accountability. Upfront alignment allows all participating teams' great apps to shine in a successful app+ environment. Forward-thinking enterprises must:

- › **Build and integrate a strong architecture to have a successful digital integration strategy.** Similar to how great apps work flawlessly in contextual mobile moments, a successful app+ environment must be a consistent experience that meets the needs of customers. Transforming mobile data into actionable customer experience insights is another critical part of the formula to making a successful app+ environment (see Figure 4). Mobile data is a valuable source of information about customer preferences and journeys, and companies are prioritizing the use of this data as they launch their digital integration strategy. Gone are the days of focusing on a single channel (browser or mobile device) and creating a siloed short-term strategy for it; consumers ultimately want their mobile moments addressed by a robust experience that makes use of both their local context and all local connected devices. Figure out what insights will help you anticipate your customers' needs and proactively serve them.⁵
- › **Consider working with technology vendors.** More than two-thirds of enterprises are integrating on their own rather than partnering with technology vendors at their own risk. Integration can be a long and challenging process, and companies don't have to go it alone. Technology vendors can help reduce competing priorities, limit diverging risks, and take some of the weight off technical teams. Only 29% of respondents agreed that working with technology partners was a critical priority (see Figure 4). That 29% almost tied with the 30% who felt creating an API platform and federating data sources on it was critical. These groups also saw some of the highest rates of customers using mostly their mobile site

and regularly utilizing all aspects of their apps. You should build partnerships throughout the mobile ecosystem, as you share customers with many companies. Partner to serve your customers best. Borrow mobile moments from those partners like Facebook, Google, Twitter, and Yelp to serve your customers.⁶

FIGURE 4
Enterprises Focus On Insights And Architecture

“What priority is your organization placing on the following opportunities as they relate to its digital integration strategy?”

	Critical priority
Transforming mobile data into actionable customer experience insights	38%
Integrating mobile into a broad digital architecture	38%
Using digital innovations to drive improvements in enterprise architecture	35%
Reprioritizing or rewriting business processes to better fit with new technologies	33%
Creating an API platform and federating data sources on it	30%
Shifting data management strategies	30%
Placing integrated data management at the center of digital applications architecture	30%
Partnering with other technology vendors	29%

Base: 498 director+ business or IT professionals responsible for digital/mobile technology or marketing/business at their organization
Source: A commissioned study conducted by Forrester Consulting on behalf of IBM, October 2016

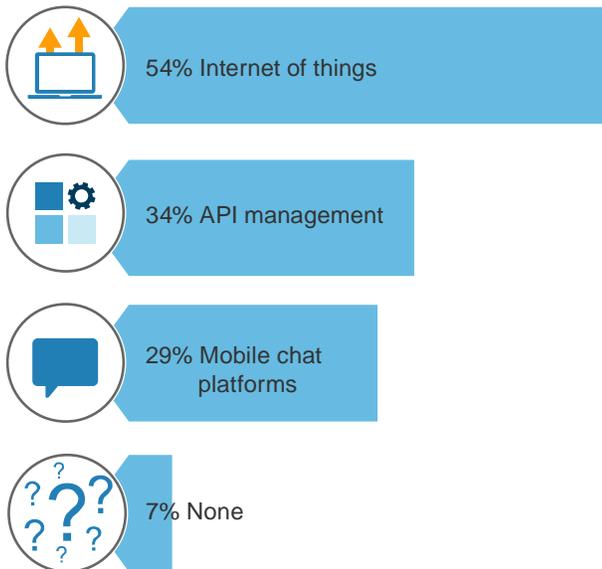
- › **Use their current digital strategies to focus on innovation initiatives.** Over half (54%) of respondents agreed that the internet of things (IoT) is the most critical innovation priority. API management follows in a distant second place behind IoT, and the third highest priority is mobile chat platforms. Given the capabilities of these chat platforms, they are very immature, and they are an easily integrated solution to start with for companies that haven't begun to integrate their customer data yet (see Figure 5). Companies can implement these chat platforms with a

single data source, so level of integration is not a barrier. Compared with more sophisticated innovations they have begun implementing such as IoT (54%), artificial intelligence (22%), or virtual reality (22%). Overall, 7% of enterprises said they were not prioritizing any innovation initiatives. When you look at this response cut by levels of integration, you begin to see the bigger picture: Companies that have not integrated at all are two times more likely to not be implementing any innovation initiatives than companies that are completely integrated. This means that lack of integration is prohibiting the construction of new and customer-led opportunities, leaving unintegrated enterprises in the wake of more customer-obsessed companies.

Sixty-four percent of survey respondents who work in the manufacturing industry have implemented or started to implement the internet of things at their organization.

FIGURE 5
Organizations Implement Internet Of Things

“Which priority, if any, has your organization implemented or started to implement?”



Base: 498 director+ business or IT professionals responsible for digital/mobile technology or marketing/business at their organization

Source: A commissioned study conducted by Forrester Consulting on behalf of IBM, October 2016

Key Recommendations

A great app+ environment is the next step along the journey from good to great mobile experiences. Great apps make it easier for your customers to access your brand and are more cost efficient for your company. Creating an app+ environment enables enterprises to break free from siloed branded apps and capture customers' owned mobile moments.

- › **Own mobile moments by integrating now.** Enterprises that have not integrated see much more brand interaction on desktops, meaning their integrated competitors are capturing and owning those valuable customer mobile moments. As eCommerce shifts faster and faster to mobile, enterprises cannot afford to miss out on those mobile moments.
- › **Bring IT and marketing/business teams into the conversation about integration from the beginning.** IT and non-IT teams bring valid and varied perspectives to the table about integration of mobile customer data and building app+ environments. Aligning those teams helps enterprises avoid roadblocks further down the line as well as reduce costs and misaligned risks.
- › **Insist on alignment between IT and non-IT teams from the top down.** CIOs and enterprise architects must lead the charge in creating alignment from the top down. Conflicting priorities, responsibility discernment, and risk assessments can lead to delays, costly technologies, and insufficient processes.

Appendix A: Methodology

In this study, Forrester conducted an online survey of 498 organizations in the United States, the United Kingdom, France, Germany, and Japan to evaluate app+ strategies among enterprises. Survey participants included decision-makers in IT and marketing/business. Questions provided to the participants asked about their opinions and practices behind creating an app+ environment. The study began in September 2016 and was completed in October 2016.

Appendix B: Supplemental Material

RELATED FORRESTER RESEARCH

- “Build Mobile Experiences That Drive Engagement,” Forrester Research, Inc., July 28, 2016
- “The Four App-Delivery Strategies For A Customer-Obsessed Operating Model,” Forrester Research, Inc., June 22, 2016
- “Consumers Spend Most Of Their Time In Just A Few Apps,” Forrester Research, Inc., June 15, 2016
- “Do Smartphone Owners Use The App, The Mobile Site, Or Both?” Forrester Research, Inc., June 15, 2016
- “Consumers Prefer Apps When Spending Time On Smartphones,” Forrester Research, Inc., June 14, 2016
- “Measuring Mobile Apps,” Forrester Research, Inc., May 25, 2016
- “The Uptake And Engagement Of Social Mobile Apps In The US And The UK,” Forrester Research, Inc., May 13, 2016
- “The Future Of Mobile: From App Silos To Open Ecosystems,” Forrester Research, Inc., April 4, 2016
- “Blurring Approaches To Mobile Apps Expand Options For Developers,” Forrester Research, Inc., March 31, 2016
- “Adopt An App+ Strategy,” Forrester Research, Inc., March 18, 2016
- “A Recipe For Mobile App Success,” Forrester Research, Inc., September 22, 2016

Appendix C: Endnotes

- ¹ Source: “Winning In The Age Of The Customer,” Forrester Research, Inc., April 6, 2015.
- ² Source: “Adopt An App+ Strategy,” Forrester Research, Inc., March 18, 2016.
- ³ Source: “Build Mobile Experiences That Drive Engagement,” Forrester Research, Inc., July 28, 2016.
- ⁴ Source: “A Recipe For Mobile App Success,” Forrester Research, Inc., September 22, 2016.
- ⁵ Source: “The Future Of Mobile: From App Silos To Open Ecosystems,” Forrester Research, Inc., April 4, 2016.
- ⁶ Source: “Adopt An App+ Strategy,” Forrester Research, Inc., March 18, 2016.