

Enterprise Mobile Applications

How to Create a Mobile Apps Strategy

Make Your Apps Engaging

Tools for App Stores

Security Challenges

Advanced Case Studies



FROM THE EDITORS OF



BUSINESS TECHNOLOGY LEADERSHIP

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EDITOR'S NOTE

The Journey to Mobile-First

In one of the many surveys about enterprise mobility, 61% of the IT chiefs said they're quite confident of their organization's ability to successfully implement a mobile strategy.

I'm not so sure. I suggest a little more humility. IT departments are used to building big, complex systems that process transactions. But mobile apps require a new way of thinking. "Mobile is not merely another chapter in the smaller, faster, cheaper device story. And it's not tiny Web or screen-scraped PC applications," a recent Forrester Research report points out.

It requires asking customers how they want to interact with your business at key moments of decision or action. And it requires giving them an experience that they find engaging, intuitive, fast and maybe even fun. To be blunt: The opposite of a traditional ERP system.

Some CIOs are just starting on this journey; others have already gone so far as to declare a "mobile-first" approach to all application development. This report is intended to guide and inspire you along the way.

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How to Craft a Mobile-Application Strategy

Timing is essential to the success of a mobile application.

Just ask Richard Peltz, CIO of Marcus and Millichap, a \$13.5 billion commercial real estate investment services firm. In January 2010, when the commercial real estate market was starting to emerge from a two-year slump, the company began looking for ways to increase brand awareness and exposure for its 1,200 agents nationwide. Peltz came up with the idea of providing searchable profiles of agents and loan originators on the company's website, which clients could access with their iPhones or Android smartphones.

When Peltz learned that at least one competitor was developing a similar app, speed to market became a high priority. While eliciting input from the marketing group and the vice president of app development, "I pretty much managed the app right off my desk, because I didn't want to take the time to have it

managed by committee,” he says. He also chose to outsource the development to AT&T, rather than try to get his staff up to speed in mobile programming languages, particularly those for the iPhone, he says.

Deployed in December 2010, the app is now being used by a growing number of real-estate investors, and it has generated several leads, Peltz reports. Now comes the hard part: designing and building an enterprise strategy and infrastructure for developing and managing mobile apps over the long term.

Marcus and Millichap is in good company. Mobile-first apps represent a conundrum for IT leaders. On the one hand, CIOs are excited about the potential payoffs, and often they’re being pressured to deliver sexy new apps to mobile-toting end users, executives and customers. Developing applications for mobile first, as opposed to porting limited versions of desktop apps onto mobile devices, is “reaching a

Mobility is No.1

Which technology trend will have the biggest impact on your organization this year?

1. **Mobile**
2. **Cloud computing**
3. **Consumerization of IT**
4. **Social media**

Source: TEKsystems survey of more than 1,500 IT leaders, March 2012

tipping point, where it makes a lot of sense,” says William Clark, an analyst at Gartner.

According to Gartner research, the number of smartphones is projected to exceed 6.7 billion by 2015 worldwide, creating huge opportunities for consumer-oriented businesses. Consumer-facing mobile app development will continue to outpace development of Web apps and application development in

general through 2014, the report says. Meanwhile, a recent CIO magazine survey of 261 IT leaders found 54 percent of respondents plan to boost spending on mobile applications.

On the other hand, Gartner’s Clark notes that “fragmentation and chaos” in the mobile marketplace, where new releases and versions of mobile operating systems are coming out all the time, has made it difficult for businesses to develop and execute a coherent strategy. And a strategy is critical to the success of such initiatives, analysts and CIOs agree.

What follows is an overview of the state of mobile-first application development: What is driving it, what challenges and opportunities it creates for IT organizations, and how to craft a strategy for it that addresses its difficulties and exploits its possibilities over the long term.

IT leaders are recognizing that in order to be truly useful, mobile apps cannot just be limited

versions of existing Windows or Mac OS desktop applications. They need to be developed from scratch not only to work within the constraints of mobile devices' small screens, finite memory and limited computing power, but also to take advantage of device features that desktops typically lack, such as multiple cameras, touch screens, and multimedia communications and animation.

Outward-facing mobile apps can help businesses get and keep customers, and please their business partners, by providing richer interactions with consumers' mobile devices of choice.

While internal mobile apps are trailing behind consumer-facing ones, according to Gartner, IT leaders are starting to exploit them as a means of boosting employee productivity and responsiveness. For example, Marcus and Millichap's agent lookup application spawned an internal directory that lets agents in the field use their iPhones or

Big Challenge, Global Differences

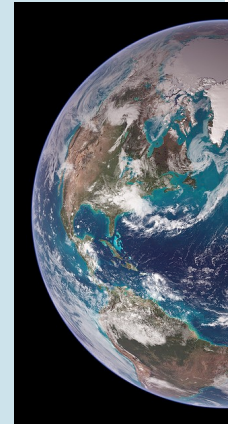
CIOs are recognizing that delivering "mobility" to their enterprises is one of the most significant business challenges since the advent of the Internet.

Accenture's CIO Mobility Survey found that two-thirds (67 percent) of CIOs and other IT professionals believe **mobility will impact their businesses as much as or more than the Internet did in the 1990s**. The research also found that over two-thirds (69 percent) of IT professionals surveyed would allocate more than 20 percent of their discretionary budgets that are delivering mobility capability for their business this year.

But the global study found that there's a **striking contrast** between IT leaders in emerging markets – where 94 percent plan to boost mobile spending – and in mature markets, where the figure is 35 percent. Similarly, the survey found that 48 percent of respondents in emerging markets have an extensively developed mobile strategy, while only 12 percent of respondents in mature markets claimed to have extensively developed strategies.

The study also found a few areas of concern complicating the adoption of mobility by enterprises. Fifty percent cited **security** as the leading factor preventing them from addressing their mobile priorities; **cost and budget** ranked second (43 percent), while 26 percent cited either **interoperability** with current systems.

Mobility isn't a one-shot deal, either. The rising penetration of smartphones and tablets is **compressing IT innovation cycles** for the enterprise to 12-18 months. Companies should review their mobile strategy every six to 12 months to ensure that they're placing their bets on the right trends.



Source: Accenture survey of 240 IT professionals in 12 countries, January 2012

The goal is to provide sustainable benefits to external and internal users to get the best ROI.

Android smartphones to look up information about each other and about loan originators, Peltz says.

At Erie Insurance, IT started off with an iPhone app that makes it easier for customers to report their property has suffered damage before filing a claim, says Eric Miller, the firm's senior vice president of IT. However, mobile information systems were also an obvious choice for an app for insurance adjusters evaluating the damage a vehicle sustained in an accident. "It would not be feasible for our agents to take pictures of an auto axle with a laptop," but with an iPhone, it's a snap, says Rich Warnaka, director

of user experience at the \$4 billion company.

How to Craft a Long-Term Strategy

Like Marcus and Millichap, many companies have

deployed an app or two to test the waters, then put further development on hold while they design and deploy an enterprise infrastructure and strategy.

That is the tack that Matson Navigation has taken with a "multi-phase, multiyear road map" the IT department developed, says Srini Cherukuri, the container shipping giant's senior director of IT operations. The overall goal is "to provide sustainable benefits for a broad community of external and internal users in order to get the best ROI," he says.

Matson recently developed a shipment-tracking and vessel-

scheduling application that lets customers look up transportation and logistics schedules on their iPhones and Android smartphones, and receive text alerts when particular containers move. However, other apps will have to wait until IT "acquires the expertise and tools, and builds the internal processes" for developing, supporting and managing mobile devices and apps, Cherukuri says.

Cherukuri also wants to wait a few months for the currently volatile mobile industry to stabilize before choosing which mobile devices and architectures to support, and before shopping for mobile management and security products.

Today's shaky economy is another reason that some companies have taken a slow and deliberate approach to mobile app development. Timing should be based on a careful analysis of the current market and its trends, Gartner's Clark advises. One of

Building for Internal & External Users

“Currently, the primary motivation for a business to adopt a mobility strategy is to enable a mobile workforce and ensure smooth operations,” says Seth Robinson, director, technology analysis at CompTIA, an industry association. “However, the ability to **connect to customers** in a mobile environment is increasingly important. So any mobility strategy must address the needs of **two different groups with distinct needs** and requirements.”

Only 22 percent of companies in CompTIA survey of 500 organizations currently have a **formal mobility policy**. Another 20 percent were building policies at the time of the survey. These policies typically cover guidelines for mobile applications and corporate data, along with device guidelines.

Security considerations are the greatest risk involved in supporting mobility, according to 70 percent of IT staff surveyed. Among the challenges they face:

- **Downloading unauthorized apps**, cited as a serious concern by 48 percent of respondents
- **Lost or stolen devices** (42 percent)
- **Mobile-specific viruses and malware** (41 percent)
- **Open Wi-Fi networks** (41 percent)
- **USB flash drives** (40 percent)
- **Personal use of business devices** (40 percent)

These types of concerns have prompted organizations to take various security measures, such as requiring passcodes, installing tracking software and encrypting data on the device.

Source: CompTIA's “Trends in Enterprise Mobility” study, based on a survey of 500 IT and business professionals in the U.S., March 2012

Gartner's clients, a grocery store chain, is evaluating how much to invest in apps that target the demographic segment comprising “well-heeled people carrying iPhones,” Clark reports. “Today, it's about 15 percent of the addressable market, but within two years, mobile applications will have an impact on advertising, marketing, final selection and customer loyalty for the mainstream shopper,” because the upper 60 percent of consumers, in terms of income, will have smartphones.

AARP, for example, has been aggressively redefining itself as an organization for anyone over 50, not just the truly elderly. That's why Sami Hassanyeh, head of AARP's 50-person Digital Strategy Group, has been pushing a mobile-first application-development mind-set across the organization.

Driving this initiative is Hassanyeh's discovery, from checking out independent research, that a hefty percentage

of AARP's core Baby Boomer constituency is using mobile devices to access the Web and social media. Furthermore, AARP.org is seeing a tremendous surge in page views from mobile devices. "We have to go where the numbers are going," Hassanyeh says.

Who's on the Team?

Going mobile first often requires IT leaders to rethink the mix of talent and expertise they apply to application design, development, management and maintenance.

As part of its multi-phase mobile strategy, Matson distributed the responsibilities between two groups within IT, Cherukuri says. The global device-management group is in charge of choosing which mobile platforms to support, and the tools and platforms to use for managing them. The application group does research and talks to end users to determine which applications "provide broad-based benefits to employees and

customers," Cherukuri says.

While the CIO and IT are often in charge of mobile application strategies, this is not always the case. And active participation by other business groups is critical, industry sources agree.

Marcus and Millichap recently formed a steering committee to design a formal process for eliciting ideas for internal mobile apps and to create a structure for "building, testing and deploying innovative solutions," says Peltz. The committee includes regional managers, business users, and several managing directors "who will provide the funding and the urgency" behind the project, he says.

At AARP, the Digital Strategy Group is separate from IT. Hassanyeh reports to the executive vice president and chief communications officer, not to the CIO. His group is responsible for

You need business managers who can provide the funding and urgency behind the project.

customer-facing aspects of mobile application development, management and support. IT takes care of the underlying database, the internal desktop apps, and the backup, Internet and security services. AARP isn't developing internal mobile apps at this time, Hassanyeh says.

The Digital Strategy Group brings together application developers, systems administrators, the teams that handle online marketing, online editorial and social media, and a product team that creates a road map for developing new Web-based and mobile apps and features based on what end users are asking for, Hassanyeh says.

Mobile First or Mobile Only?

Another key question for mobile strategists to address is whether a specific mobile app, or even all mobile apps enterprisewide, will be mobile first or mobile only. While some CIOs and developers treat mobile and desktop systems as different animals, many attest to the benefits of developing a mobile-first application and then porting it to desktops or the Web.

Forcing developers to work with mobile devices' smaller screens and limited computing resources improves their efficiency and effectiveness, says Erie's Miller. "They have to maintain a laser focus on [the end user's] activities, because we don't have the real estate to throw everything on there" the way you could with a desktop screen or Web page. His group now interviews potential app clients, whether employees or consumers, to "identify their needs and wants" before going ahead with an application. "You end up developing a whole lot less,

Top Challenges You'll Be Facing

CIOs say the top challenges for IT teams developing mobile applications are **collaborating across departments** and **finding IT professionals with the skills** to build them.

"Building mobile applications requires intense collaboration between numerous groups within the organization, including marketing, IT, operations and sales," says John Reed, executive director of Robert Half Technology. "It's important for mobile application developers to have strong **soft skills**, in addition to the ability to write code and test and debug software applications."

As more companies look to develop mobile apps, the demand for IT professionals who specialize in this area has increased. **Starting salaries** for mobile applications developers are expected to increase 9 percent next year – one of the largest increases of any IT position.

"Because the demand for professionals with a track record of building successful mobile apps currently outpaces the supply," Reed says, "companies are willing to pay a premium for professionals with these skills."

Source: Robert Half Technology survey of more than 1,400 CIOs from companies across the United States with 100 or more employees, February 2012

decreasing your time to market" and pleasing customers, Miller says. "That's why we've started to think mobile first for all our apps," he says.

"The desktop environment is like a carp in a bathtub: It grows

till it fills all available space," says Luke Wroblewski, who was chief product officer and co-founder of Bagcheck.com. (The company was acquired by Twitter in August.) The same goes for Web pages, he adds, and as a result, the screen

gets cluttered with irrelevant data that can distract or frustrate end users.

Wroblewski embraced mobile first at Bagcheck.com, a service that enables people to share info and photos of objects related to their interests, experiences and hobbies. While it was only a three-person operation, it faced many of the same mobile-development issues and constraints as large enterprises, says Wroblewski, formerly chief design architect at Yahoo. “Mobile use is growing so fast, it’ll overtake desktops and PCs in the next year or two. We have to prepare for the inevitable shift.”

Choosing a Development Environment

Until recently, CIOs had two basic options for developing a mobile application, neither of them ideal. They could write a thin, Web-based client that would give mobile users access to basics such

as messaging, calendars and data in the corporate data center or the cloud. The main advantage of this approach is that it’s a “write once, port everywhere” solution, or nearly so—porting between different types of mobile devices is easy. And programmers can use familiar Web-based languages such as HTML.

The catch: Such apps cannot

“We’ve started to think mobile first for all of our apps.”

take advantage of smartphone and tablet features such as GPS and multiple cameras. To do so requires writing a different version of each application using the programming languages, plug-ins and APIs that are specific to the mobile device, whether it’s an iPhone or a particular Android release.

Consumer-facing companies don’t have much choice about

supporting multiple platforms, however; CIOs at these companies can’t know which devices customers will use. Netflix, for example, recently announced that its streaming video app for Android will support 24 versions of that operating system.

Even when it comes to internal users, IT executives report mixed success in controlling or limiting

the types of mobile devices that employees, particularly executives, carry around. In a recent survey, sponsored by Sybase and conducted by independent research firm Kelton Research, 58

percent of the 500 U.S. and UK workers polled said they would give up free coffee in exchange for the right to use their own mobile devices at work rather than having to use the ones selected by IT.

Fortunately, IT managers now have a third, hybrid option that uses Web-based code for the bulk of an app, then adds native code and plug-ins to exploit

proprietary OS features. Greatly facilitating this approach is the Worldwide Web Consortium's (W3C) HTML5 protocol, which provides strong Web-based animation and interactive capabilities and can run on multiple platforms. The W3C has yet to fully ratify certain key elements of the protocol, such as caching, which allows mobile users to work offline, Gartner's Clark warns. However, many IT leaders are already using or planning to use it.

"HTML5 seems like good solution to some of the interactive problems, and we would love to leverage mobile devices' location capability," AARP's Hassanyeh says. For example, "We are working toward a location service where, if you walk into a store, we let you know of the discount [or] service we offer. Or we can help you find a caregiver for your mother in Florida."

The good news is that a growing bevy of app-development

Tools for Building an App Store

You could build your own enterprise app store to distribute and manage mobile applications. IBM, for example, created its own online **app marketplace** called Whirlwind, according to a recent *BusinessWeek* article.

But there are a handful of vendors that offer software intended to make the process of opening and maintaining an app store easier. They include AppCentral (formerly Ondeego), Apperian, MobileIron, Nukona, Partnerpedia and Rhomobile.

AppCentral, for example, claims that its Mobile App Management software handles three major challenges facing enterprises trying to manage apps on mobile devices: **distribution, security and administration**.

Distribution means getting approved apps installed on users' devices. AppCentral distributes native apps, HTML5 apps or links to consumer marketplace apps. "**Role-based distribution delivers the right apps to the right employees,**" the company says on its website.

AppCentral says it secures corporate apps and data with a "**mobile app wrapper.**" And it **wipes apps if the device is lost** or if the employee who uses the app leaves the company — without touching personal information on employee-owned devices.

To run the store, AppCentral manages, monitors and updates mobile apps **over the air**. The software also **manages licenses** and tracks app installation and usage, the vendor says.

The next step in the evolution of enterprise app stores is to **allow employees to rate the apps' usefulness** — something IBM is encouraging its employees to do on its internal social network.



Ensure that the server and network have the capacity to meet the growing demand from mobile apps.

platforms from vendors such as Sybase, Appcelerator, IBM, Sencha, Syclo, and Antenna Software can take care of much of the grunt work of programming mobile apps that can run natively on several platforms.

Developing the apps is only a small piece of a successful strategy, however. Once you commit to developing mobile applications, especially for consumers, you'll need to update them frequently—more often than you would a traditional website. That's neither easy nor cheap, but it is necessary, Hassanyeh says.

While AARP is introducing new apps slowly, Hassanyeh's group is updating existing iOS and Android apps every 35 to 60 days. Because anybody can write and try to sell an iOS app, it's not enough for companies to just put out a mobile app, he

says. They have to add value regularly.

Mobile apps can also raise major security issues, particularly, as is increasingly the case, if employees are using personal devices for work. More than one-third (36 percent) of respondents to the CIO survey said they were letting employees use personal devices for email, while only 23 percent were allowing such devices to access corporate applications.

IT leaders must also ensure that the server and network

systems have the capacity to meet the growing demand from mobile apps. Our survey found that 52 percent of respondents have infrastructure upgrades in production for smartphones, and 25 percent do for tablets.

If mobile devices represent both the wave of the future and a growing drain on IT resources, why not dispense with desktops altogether?

While none of the IT leaders interviewed for this article said they were ready to jettison desktops, some saw it as a likely long-term scenario, for many if not all end users.

"Building client-server apps that require a storage device, a big processor and a lot of memory is not in our best interest now," says Marcus and Millichap's Peltz. "Building thin clients that leverage dynamic data and the ability to store this information in the cloud is where we're focusing." However, his firm has "no agenda for eliminating

CASE STUDY

Hospital Builds Custom Mobile App for Patient Data

Palomar Pomerado Health has improved its workflow and culture by developing its own Android medical apps. In 2010, PPH started to build its own mobile healthcare platform called MIAA (Medical Information Anytime Anywhere).

The centerpiece is a mobile app that pulls in data from the hospital's legacy system to give physicians all the information they need about a patient in real time. The MIAA mobile app was developed for the Android OS and the creation process was run much like a startup company by Orlando Portale, Palomar's chief innovation officer.

"We sandboxed it outside the IT organization at Palomar and got funding for it and used contract resources," says Portale.

Physicians log in to the app, which uses location services to generate a list of their patients currently in the hospital. The app communicates with patients' RFID wristbands to determine their whereabouts and provides summaries of patient information, including allergies, active medications, lab info and recent vital signs.

Shane O'Neill, CIO.com, February 2012



desktop apps," he says, because users in accounting and finance, who need to access, process and share large amounts of data, will continue to need them. "I don't see even a tablet being able to support that level of creativity."

At Erie Insurance, on the other hand, some employees are already fully mobilized. Says Miller, "We got into iPhones two years ago because one of our senior managers had one, and saw no reason to have two devices."

Elisabeth Horwitt, *CIO* magazine, October 2011

UX: USER EXPERIENCE

All You Really Need is Love...

Many application development professionals are likely to obsess over what tools and technology they should choose to develop a mobile app. While that's important, "it is less than half the battle," says a report by Forrester Research analyst Mike Gaultieri.

What you really need is a mobile app that people will love to use. "If users don't love your application, then they will simply move on to another application that they do love—or use no app at all," the report says. The reaction you're seeking? "This app is awesome!"

Gaultieri's report says that "lovable mobile user experiences" must have the following qualities:

- **Utility:** A mobile app must deliver functions that allow

customers, employees or business partners to achieve their goals—using the ingenuity and capabilities of your business.

- **Usability:** Your mobile app must be extremely easy to use.

- **Desirability:** The experience of using the mobile app should produce positive emotions. "You'd think that useful and usable would be enough – but they are not. Users also want to enjoy their experience," Gaultieri writes.

Developers should identify their target mobile users, interview those users about their needs, observe them "in their natural habitat," design the app and then "validate your design in



a mobile context to make certain your users are happy and that they love your app," the report says. Well-designed mobile apps help mobile users do something that furthers the organization's goals, the report notes. For example, Liberty Mutual Insurance offers an Apple iPhone app that streamlines automobile accident claim processing.

The app walks customers through the process of collecting information from the other driver, taking a photo of the damage, mapping the location via GPS and sending the report. Liberty Mutual benefits because it gets accurate information, can quickly start processing the claim and can help the customer through a stressful situation.

What's to love about a mobile app for auto accident insurance claims? "Perhaps nothing," the report notes, "until you are in a fender bender."

Mitch Betts, based on "Mobile App Design Best Practices," Forrester Research, April 2011

CASE STUDY

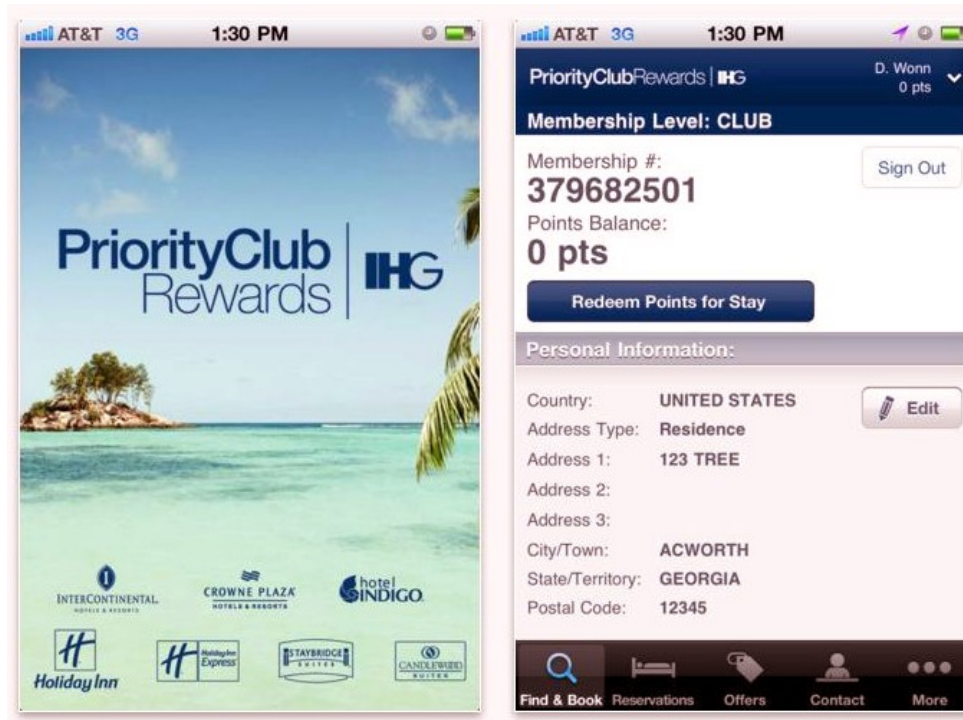
Hotel Chain Sees Mobile App Turning 'Lookers Into Bookers'

IHG is rolling out smartphone apps because internal data shows that customers who use mobile apps are more loyal than those who don't.

InterContinental Hotels Group (IHG) will, of course, take a room reservation no matter how a customer makes it. But it sees enticing sales potential in moving hotel guests to mobile applications.

The \$1.6 billion company, which owns the InterContinental Hotels and Resorts,

Crowne Plaza, Holiday Inn and four other hotel chains, has rolled out mobile applications for BlackBerry, Android, iPhone and



Windows Phone. The strategy: IHG will build native mobile applications offering unique capabilities that aren't suitable for its website, says Bill Keen, director of mobile solutions, Web and interactive marketing.

Native applications are faster, he says, and can take advantage of special features in each operating system, such as location-aware

capabilities. Plus, IHG's internal data shows that customers who use mobile apps are more loyal than those who don't. "We want to turn lookers into bookers and turn bookers into loyalists," Keen says.

Members of IHG's Priority Club Rewards program can download an application for their smartphones to find hotels, check rates and book and cancel

reservations. Of the 58 million people in the club, 300,000 have downloaded at least one of IHG's mobile apps.

Like other companies, IHG is figuring out how to modernize its business model with new technology, says Ken Dulaney, an analyst at Gartner. Companies in retail and other industries have been doing mobile commerce for a while, he says.

Retailer QVC, for example, got into mobile shopping in 2008. It sent text messages to customers with existing accounts, who could reply to buy beauty products, home electronics and other items.

By analyzing how customers book rooms—such as through a mobile device, on the Web, or using a call center or travel agent—IHG has identified patterns that now inform its strategy for mobile

Mobile customers are big on last-minute booking, with 65 percent reserving a room shortly before arriving.

technology. For example, IHG found that although some customers may book through the website or call center, many others use a mobile device to navigate to the hotel once in the vicinity.

A Deeper Relationship

Perhaps more startling, IHG noticed that its mobile customers are big on last-minute booking, with 65 percent of them reserving a room within one day of arriving. Figuring its mobile users often operate in real-time, IHG plans to build location-aware features into its mobile apps to generate maps,

directions and real-time coupons for customers approaching a hotel property. The app might communicate a message tailored to the guest's circumstances, Keen says. "You just

landed, it's late, you can check in from here. The restaurant stays open until midnight. Would you like a discount?" Another new feature is a button that allows users to place a one-click call to the hotel's front desk.

Such mobile amenities, he says, will yield repeat customers. "If we can get the app on the deck of their phone, we can deepen the relationship."

Kim S. Nash, *CIO* magazine, December 2011

CASE STUDY

Beauty & the Tablet

Cosmetics retailer
Sephora gives
mobile shopping
a shot of glamour

Beauty is now in the hands of the tablet holder.

Cosmetics, creams and gels retailer Sephora launched an app last year that's designed to leverage the crisp graphics capabilities of Apple's iPad and entice users not just to browse, but to buy. Now brick-and-mortar shoppers can use Sephora-provided iPads to access the app while they stroll the aisles of select stores.

Sephora is one of a batch of leading-edge companies hoping to capitalize on tablet commerce by

building apps with the iPad in mind. While tablets still trail phones when it comes to mobile shopping, iPad users appear more likely to spend.

According to an IBM survey conducted last year, iPad users who visited retail websites during the month of December converted their browsing to purchases 6.3 percent of the time, more than double the 3.1 percent for users of other mobile devices.

But selling on tablets is fundamentally different from selling on smartphones and requires a carefully thought-out

design. Functions such as embedded video and page-swiping instead of scrolling, for example, define tablet navigation.

Tablet shoppers are also more likely to use the device in comfortable surroundings. Bridget Dolan, vice president of interactive media at Sephora, says



its app was designed to weave together content and commerce with the expectation that customers would be in a different setting than those using a PC or laptop. "At your computer, you cut

to the chase. You're probably at work. On the iPad, you're on the couch or at a coffee shop," she says.

Owned by Moët Hennessy Louis Vuitton, Sephora has 550 stores in the United States and Canada. The beauty company wants its app to immerse customers in glamour, Dolan says, showing palates of eye shadows from Paris, Rome and Tokyo and pink rouges displayed like little breaths of luxury. Sephora's magazine-style catalog emphasizes the iPad's page-flipping navigation and integrates with its website's existing e-commerce infrastructure.

Customers can browse beauty and fashion content and buy the products that appeal to them in

"We're creating [tablet] content that inspires shopping."

photos and articles. They can watch videos that show how to use the products, including one that teaches viewers how to create a "smoky eye." The app uses the device's camera to create a virtual mirror for users to test techniques.

One mistake some companies make in tablet commerce is providing only a subset of the features available on the regular website, says Alex Schmelkin, president of Alexander Interactive, a Web design firm.

To simplify the tablet app, Schmelkin says, companies might omit corporate information or limit search capabilities. But having two different experiences confuses and frustrates customers, he says.

Companies should also optimize their websites for tablet navigation by enlarging text and images and minimizing the use of Flash, he says.

"We're creating [tablet] content that inspires shopping," says Dolan. "We can leverage all the cool features of an iPad that would allow you to experience [shopping] in a different way."

Kim S. Nash, *CIO* magazine, April 2012