



New York City CIO Perspectives Sounding Board: Creating Competitive Advantage with Mobile Apps
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Scenario from Adam Noble, Global CIO, GAF

GAF is North America's largest roofing manufacturer and a leading building materials manufacturer, with almost \$3 billion in sales. Global CIO Adam Noble wants to expand the organization's use of mobile applications—both internal and customer facing—to help the company stand out competitively in the building materials industry. GAF has standardized on a number of mobile platforms that include Blackberry, iOS and Android. Adam strongly believes that as mobile devices continue gaining momentum over the next five years (even beyond smartphones); these devices will slowly replace the standard enterprise devices in use today. **Adam is considering making mobile one of the *primary* methods to deliver services and functionality, due to ease of use and other benefits.**

The Business Goals

- Internally, GAF seeks mobile apps that will improve efficiencies and streamline business processes.
- Externally, apps are needed to enhance customer service, communication and collaboration, specifically for GAF distributors and contractors. Focusing on customer service this way is one way to build customer loyalty and differentiate GAF from its competition.

Decisions Made and Actions Taken

- Specific staff on Adam's IT innovation team are experimenting with new mobile devices and researching new devices as they hit the market. This helps his entire team stay abreast of what customers may be using and what may be the next generation device.
- For internal applications, GAF launched MS Dynamics for CRM on a mobile platform in December and is now extending SharePoint applications to a mobile platform. GAF is also using the iPad and testing a virtual desktop on it to simulate the running of a standard desktop.
- For customer-facing apps, IT is working closely with GAF business units and external customers to prioritize business needs. IT is collaborating with the GAF commercial business unit on an app that would enable commercial roofing customers to access specific data from a mobile device. Other potential apps could provide calculations commonly used in roofing applications, and bring GAF's Master Elite contractor social networking site onto mobile devices.

The CIO's Challenges

- Finding the right mobile apps expertise is a challenge. Options for staffing up include outsourcing app development to an external partner, staff augmentation, re-training internal staff, or allocating budget to recruit this specific skillset.
- A big focus area for Adam is how to develop mobile apps that integrate with all of the different platforms—iOS, BlackBerry OS, Android, Windows Mobile, Palm OS—and still work effectively in a Windows environment.
- Meeting business unit demand for customer-facing apps can be overwhelming. Prioritizing requests comes down to identifying those apps that will result in the greatest business payoff. Unclear whether a standard ROI measurement will work for mobile apps.
- The app market is still developing rapidly, as are the capabilities of mobile browsers. Developing generic apps that can be rendered in any browser—mobile or otherwise—would be less resource intensive than developing apps for each specific mobile device, but would lack the richer functionality afforded by taking advantage of device and platform differences.





Workshop Responses

(Note: in some cases, multiple break-out tables discussed the same question)

Finding and using mobile expertise: How can IT organizations identify the right staff to work on mobile apps? What works best—retraining existing staff, hiring specific talent, sending tasks out to an external partner, or a combination of these options? How can mobile app-focused teams effectively coordinate with the rest of the IT department?

- Identify key individual—a high-level strategist on mobile technology to guide internal app development process
- Appoint dedicated staff to focus on internal apps and different staff for external apps
- Translate your business needs into staffing needs—what can you do in-house and what can you use a partner for?
 - Define your customer
 - Identify what is important for business growth
- Partner with external organizations that have expertise across multiple platforms
- Create a non-competitive consortium of similar organizations who are searching for mobile talent
- Use college-level interns who are up on the latest technologies
- Diversify talent risk with multi-tier arrangement—don't put all your eggs in one basket
- Retrain current staff to give growth opportunities and help with retention efforts

Governance for app requests: How can we manage myriad requests received for internal and customer-facing apps? How should potential business payoff be measured? Do ROI metrics apply and if not, how should “softer” benefits like enhanced brand recognition be measured?

- Establish portfolio management group on the business side
- App requests and mobile needs should be filtered through the business and based on their specific needs
- Analyze whether the requests enhance customer service, communication and collaboration
- Have IT members embedded on business teams to gather app requests. Call them product owners and make them responsible for working closely with business leaders and the IT leaders
- Create a governance review board that consists of multiple business unit stakeholders
- Build out a balanced scorecard model to measure hard and soft benefits; use separate metrics for internal apps and external apps
- Settle on a single platform for internal apps to avoid consuming too many resources
- For external apps, develop on multiple platforms based on the largest market share

Integration across multiple platforms: How can we best manage the app development process across different platforms/devices and ensure that apps integrate with all of these platforms and with the Windows environment. What types of tools would you recommend?

- Need a standard data architecture and common platform
- Use a mobile delivery framework that is common across devices and built on common database architecture
- Mobile delivery framework
 - Agile data access layer—connect to all; transform and mediate
 - Agile application layer
 - Completely self-contained bubble
 - Web-specific





- Full SDLC (incorporate all emerging devices)
 - Persona-based
- Persona model—identify what type of user is coming in and their specific profile data, authentication and security needs
- Common SDK for apps
 - Basic functionality across devices
 - Scale out by device type as needed driven by business needs. If a business unit wants a richer experience, scale up and quickly develop an app
- Manage through an Agile development process with appropriate governance
- Develop engine for app, and then can plug into a virtual machine
- Choose the leading devices by current market share and develop for them with the following constraints:
 - Design a device-agnostic user interface so a larger portion of the investment is reusable when a different platform emerges as a leader
- Another piece of advice: be cautious in committing the company to any particular technology or device as it changes so quickly
- Reuse the same interface on different platforms by using an intermediary component

Evaluating mobile technology: This technology and market is changing even faster than most. How can we educate ourselves and our staff on all of the different end-user devices currently available and those devices that are emerging? How do we use this information to educate app development teams/projects and help them build in flexibility for future OS or devices?

- Use a dedicated IT group that remains up to date on new mobile technology, tests devices and has time to play with them
- Have IT staff spend time with the end-user experience across different business functions like corporate, sales and field staff
- Create mobile advisory team that includes IT staff, business representatives and an outside technology leader to lend advice and advise on trends
- Invite external, cutting-edge vendors to come in and make presentations on the latest and greatest technology on a quarterly basis

Managing risk and security: What measures have you taken to reduce the inherent security risks of mobile devices and apps for your internal users and external customers? Do these measures differ by OS and device? What policy recommendations can help reduce the risks?

- Identify the security needs of your different audience (e.g. internal users, contractors, homeowners) and the type of data they need; this will help determine whether a connected or disconnected model is the best for a given app
- Look at different persona or role-based security models
- Level of security requirements needed for a particular app depends in part on the specific industry—for example, financial services companies have many more regulatory requirements
- Develop policies for how internal staff use the apps and specific guidance on what they can/cannot do
- Need to acquire or develop applications that manage security level on the devices
- Need to be able to wipe a device (including both corporate and personal data) if it is lost
- In many cases, governance and policies have not kept pace with mobile technology development. One attendee commented that it's not going to work anymore for many companies to say that an employee can only use a business-issued device that the business controls—people aren't going to have 2 iPads, one for personal and one for work.

