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Thought Leadership Document Outsourcing

When *PC World* compiled its list of the 10 Most Disruptive Technology Combinations, the editors included everything from "YouTube + cheap digital cameras" to "cloud computing + always-on devices." [1] I'd like to add an 11th combination—mobile technologies + 4G networks.

The rapid deployment of 4G and the widespread acceptance of mobile devices are transforming business in ways we have only begun to experience. As the fourth generation of mobile broadband, 4G offers speeds that are up to 10x greater than 3G, with real-time responsiveness that is over twice as fast. Even the highest bandwidth content, such as videos and graphics-rich presentations, can be accessed and delivered at blazing speeds—in virtually any location.

While it may seem like a small step up, 4G actually represents a significant leap forward. Ideally suited to the latest mobile advances, it has the power to impact businesses in revolutionary ways, dramatically transforming processes and creating truly disruptive customer experiences. And now is the time to leverage its incredible potential.

Laying the Groundwork for Disruption

"More people in the world today have a mobile phone than a land line. In fact, mobile Internet users are expected to reach 1 billion by the end of 2011, with mobile devices already outnumbering PCs by three to one.[2] In an incredibly short period of time, mobile technology has gone from nice-to-have to must-have.

While it's easy to categorize mobile as another communications channel, its long-term role is destined to be less "channel" than "change-maker." Forrester Research put it succinctly:

"Mobile is very different in two ways. First, mobile will extend the reach of sales, delivery, and services to new audiences. Second, mobile will also enable new services that will increase revenues, lower costs, and increase customer satisfaction and loyalty if well-conceptualized, designed, and developed." [3]

The potential of mobile grows even richer when combined with 4G. Enterprises can deliver more applications, more high-bandwidth content and more real-time data internally and externally, regardless of location or industry. And more users can access those apps and infostreams from more places around the world.

Need evidence? Here are just a handful of examples where mobile is already disrupting the status quo.

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Greater Information at the Point of Care

Imagine that you're an emergency room physician who regularly sees patients outside of your hospital's network. It's 2:00 a.m. The ambulance doors fly open. A patient is rushed in, needing immediate treatment. You have no access to his records. No idea of his medical history. No list of his prescription meds.

Now picture a different scenario. The EMTs call as they're racing to the hospital. They've performed a portable ultrasound scan in the ambulance. As you sprint toward the ER doors, you pull out your smartphone and type the patient's name into an inter-hospital network system. Within seconds, you have the patient's complete medical background, including an image of the new scan. Mobile and 4G make it possible.

It's healthcare with fewer walls: A doctor in a remote satellite clinic securely sending and receiving patient information using a tablet PC … a nurse practitioner attending a smartphone teleconference with remote cardiac specialists … a diabetes patient wirelessly sending insulin pump data to a secure web server for review by a caregiver.

These are real technologies under development or available for implementation today. And their impact may mean the difference between life and death.

Greater Incentives at the Point of Sale

Retail is equally susceptible to mobile disruption. Mobile commerce in the United States is expected to grow at an average of 39 percent per year over the next five years, reaching $31 billion by 2016. Already, 57 percent of online retailers have developed a mobile commerce strategy and 48 percent have a mobile-optimized mCommerce site.[4]

I'm sure you've read about GPS retail applications like discounts that are "pushed" to consumers as they shop. But NFC (Near Field Communication) is also gaining prominence. Both Apple and Google have released devices with NFC chips that can be used to find a shopper's location, provide nearby store recommendations, report retailer discounts, show product availability and—most importantly—allow credit card payments via smartphone.

What's more, compact technologies like the Square Mobile Payment System can turn any location into a payment center. Square offers a credit card scanner about the size of a quarter that plugs directly into a smartphone. Square users can accept credit cards wherever there's a wireless connection—at a food truck window, on a service call or even selling door-to-door.

Greater Innovation at the Point of Engagement

There's no better application for mobile technology than one where the user is always on the go. Here's a sampling:

- **In a Car:** The new BlueLink® system from Hyundai® offers a range of mobile magic, including geo-fence technology, which lets a car owner place a virtual fence around a driving area. If the boundary is breached, the owner receives an alert on his smartphone or PC. So if your teenage son isn't really driving to choir practice or the valet takes your car for a spin, you'll know within seconds.

- **On Foot:** Reporters traveling in broadcast satellite trucks may soon be able to cover more ground. Literally. New mobile devices are being developed that will attach to the back of TV cameras to link them directly to 4G networks. Newscasters will report from almost anywhere, providing real-time, high-resolution feeds via high-capacity, high-bit-rate connections.

- **Riding the Bus:** Public transportation systems are currently exploring payment processing at the point of sale—e.g., on the bus rather than in the bus station. A user will swipe her transit card or scan a QR code with her smartphone. Charges will be sent wirelessly to the credit card company. The only "change" a rider needs is a technological one.

Mobile applications can even help with vehicle *accidents*. Take Liberty Mutual's new mobile claims solution. Using a smartphone, a driver can map his or her accident location via GPS, take a photo of the damage, collect contact information, record a voice note and use the company's eService website to manage their policy and speed the claim along. Greater power in the user's pocket, greater satisfaction with the insurance company.

Moving Forward with Mobile

The 4G mobile revolution is well under way. To keep your enterprise off the sidelines, it is critical to shape your mobile solution around the requirements and expectations of your customers. Therefore, the question to ask isn't "Where should we implement mobile?" It's "How can we better meet customer needs through mobile's transformative power?"

To read more on this topic, sign up to receive my future newsletters or e-mail me via the Ask a Thought Leader a Question Link.

Sincerely,

John M. Kelly

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