The Evolution of Enterprise Mobility–Five Predictions for the Future

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Wireless capabilities are already enabling broader use of voice and data applications. But beyond the "unplugging" of traditional capabilities, a whole new ecosystem is being created based on the mobility of people, inventory, knowledge capital and other assets which are available anytime, independent of location. Bigger and broader than wireless, mobility will usher in a new reality where each enterprise must finally cut its metaphorical Internet umbilical cord and find its place in the new order.

Oddly enough, such uncertainty is reminiscent of the teeth-gnashing that gripped so many companies in the mid-1990s, when the Internet began making its presence known. Then, resistance to the Web was nearly universal, save for some select forward-thinking companies. Security issues were abundant and standards were scarce, and electronic data interchange was working just fine for organizations. Few at that time could envision how the Internet might become more than an infrastructure for supporting e-mail and virtual auctions.

In case anyone hadn't noticed, the wireless revolution is in full swing. Yet for many executives, there's still a great deal of uncertainty surrounding what is sure to be a force that will rival—or even surpass—the Internet in its impact.

Now, of course, it's impossible to imagine business without the Internet. As standards were created and new applications demonstrated that the Web could be used for much more than bidding on Pez dispensers, the technology became an indispensable part of daily life for enterprises and consumers alike.

The brief history of the Internet is instructive for those grappling with how to respond to the inroads that mobility already has made. As a common set of standards comes into focus and innovators begin reaping value from their early mobility investments, the question will no longer be whether or how mobility will affect the way companies do business. Instead, it will be how dramatically mobility will transform the entire value chain.

To help executives prepare for the huge changes that are just over the horizon, we offer five predictions for mobility and its impact on the enterprise.

Prediction 1: Enterprise adoption of mobility will be primarily driven by people who have increasingly personal experience as consumers.

We see the phenomenon of "constructive anarchy" on the rise in the mobility world. Professionals today increasingly are buying their mobility products and services as consumers and then using them in a business setting. In other words, employees—not the company itself—are defining how mobility can be used to improve the way they do business. This, of course, has some interesting ramifications for leaders of organizations—especially chief information officers, who must stay ahead of the anarchy that can ensue when employees create their own disparate mobile infrastructure, one by one.

Once again, history can prove instructive. When personal computers burst onto the market, employees didn't sit around and wait for the information technology function to define a PC policy and systematically migrate people from the mainframe to desktop computers. No, they knew a good thing when they saw it, and began creating their own computing infrastructure at the departmental level. The resulting mix of platforms proved both costly to the organization and a major management headache for IT.

The lesson here is that companies can either set the course for mobility or have it set for them—probably by their own employees.

Prediction 2: Winning companies will be those who "design" for mobility as the standard, instead of as a special case.

Much of the frustration in enterprise mobility is rooted in the desire to port existing desktop content to mobile platforms. But trying to shoehorn content-rich Web pages or inventory planning spreadsheets onto handheld devices is like a visit to the eye doctor- you have to wait longer than expected and the ultimate outcome is a serious of charts you can't read.

Eliminating the vision tests inherent to the small screen requires that the user interface be designed as a mobile application, not retrofitted from a 17 inch screen to a 2 inch screen. Mobility services need to designed-in as well, as many existing services are being used for applications and bandwidth demands that they were never designed for.

But regardless of the technologies deployed, companies that adapt existing processes and applications to mobile platforms can find incremental returns. Companies that re-think fundamental business processes and "design in" mobility are those that will define the rules of the game for years to come—much as Amazon.com and eBay have done to change retailing in the Internet world.

Prediction 3: The power is in the packaging. Bundled solutions (and "ease of use") will drive adoption and render most sub-components commodities.

Today, mobility vendors are very effective at developing and selling the best hardware, software, content or services. But taken individually, these components are useless, regardless of how good they are. Enterprises don't need components, they need solutions to their problems. And only when mobility solutions are available will wholesale adoption occur.

For example: Diamond Multimedia pioneered portable mp3 players with its Rio 300. First released in the United States during the Christmas Holiday season in 1999, the Rio quickly sold out in most stores and became one of the "must-have" electronics gifts that season. Yet today, while Rio continues to turn out good products, their market share in the portable MP3 market space has fallen from 100% in 1999 to 14.3% in January 2004 (source: NPD Group). Meanwhile Apple, a very late entrant to the market, now claims a 25% market share at premium pricing levels.

What's the difference? Apple has more effectively bundled great player technology, the content (i.e., the songs) and the access to those songs, making it easier for customers to understand and purchase a complete digital music solution.

The lesson here is that enterprises need to consider the whole range of the solution – devices, wireless networks, applications, management tools, physical distribution and management of devices, user training, help desk, break/fix, etc. And they need to earn a positive return on this entire investment and cost base while creating the desired output—value—rather than optimize the technology only. Put another way, when it's dark, a burned-out light bulb is much less valuable than a candle and dry matches.

Prediction 4: Winners will be those who use mobility to fundamentally transform the way commerce happens, not just "work unplugged."

Paraphrasing the immortal words of Michael Hammer, automating old work is tantamount to paving cow paths. The analogy with mobility is apt. Companies that use mobility simply to "get unplugged"—to do the same work, but just do it where and when it's convenient—are realizing a boost in productivity. They're also completely missing the point. Productivity improvements will quickly become commodities as every organization figures out sales people can be more effective if they have wireless access to key corporate data via their laptops.

In the early days of radio, programs consisted of simply broadcasting plays that people used to attend in person. It took five years after the advent of television to move past simply televising radio actors reading the plays into a microphone. And when the Web emerged, companies just transferred their existing printed brochures to an online environment. In each case, the medium didn't truly take off until content tuned specifically to the medium—and that capitalized on what each medium made possible—was developed.

The same holds true for mobility. True sustainable advantage comes when an enterprise transforms itself by understanding what new business models, products or services mobility makes possible. For instance, in many automobiles, sensors are already in place to monitor such things as speed, location, throttle position, and state of the engine. Such sensors are currently most useful to technicians diagnosing a problem after there's been a breakdown. By downloading the information recorded by the car at the time of trouble, the technician can better understand the conditions that may have caused the problem. However, if those same sensors were teamed with wireless technologies to continuously transmit information to the factory on how the car is operating, the manufacturer would be able to monitor potential problems—e.g., a rapidly decaying catalytic converter—and change the design immediately to stop producing what would eventually turn out to be warranty liabilities at some point in time. The costs saved in such a scenario could be quite significant.

Prediction 5: The source of demand for mobility will likely come from unexpected sources as new value creation opportunities appear.

There's no question that employees recognize that certain mobility applications have made them more productive, and likely will continue to ask for more of the same. But it's also true that the true innovative uses for, and users of, mobility have not yet been identified—and when they are, they may leave many of us scratching our heads in wonder. Consider cell phone ring tones. Who would have predicted five years ago that the sales of downloaded ring tones would jump 40% in a single year to reach $3.5 billion? (Reuters News Service- Jan 14, 2004)

The point is that you can plan and strategize all you want, but breakthrough mobility applications will probably emerge in ways few of us have thought of—and most likely faster, too.

Conclusion

Given these predictions, our advice to executives is threefold. First, pilot early and often. Learn and apply. Only through continual iterations will value opportunities become clear.

Second, measure employee contribution to the company's operations. The amount of value each employee contributes to the company while mobile should be at least the same as when he or she is "traditionally tethered."

Third, calculate your "mobility index"—what employees can do anywhere divided by what they have to do at the office or plant. The closer you get to a figure of 1, the better you are.

Is embracing mobility important? Absolutely. How important? Only time will tell, but consider this: If you're not mobile, then you're static, and static usually means death in today's business environment. If your competitor gains a 3 percent cost advantage because it's more mobile than you, that's not insignificant in this economy. As the saying goes, "speed kills"—in this case, slow-moving competitors.

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