Email: The next leap forward for mobile devices

or

Mobility: The next leap forward for email

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Abstract

The symmetry in the title of this paper reflects the synergy of these two technologies: Mobility vastly enhances the value of email, and email access enhances the value of mobile communications. This paper makes the business and financial case for mobilizing email and describes the inevitable adoption of this significant technology for large and small corporations, business organizations, and even individuals.

Introduction

The rapid adoption of cellular telephones by the business world, and the recent increase in announcements of enhanced voicemail services tailored for mobile users, underscore the value that businesses and individuals assign to staying "in touch" when away from the office. Cell phones give mobile workers parity with office-based workers for voice communication. However, by focusing on the medium of voice and the telephone as the delivery device, this revolution has ignored another communications channel that is at least as critical as voice for most businesses: email.

The delay in adoption of effective mobile email solutions stems from a number of causes. U.S. wireless networks have, until recently, offered poor geographic coverage, slow speed and unreliable delivery of text. Mobile devices are designed with small screens and inefficient text entry methods that serve to discourage all but the most determined. And carriers, leery of a repeat of the WAP fiasco of the late 1990s, have made very little effort to promote or publicize text services. Even though 90% of all cellular phones in

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use in America today can be reached via email, fully half of handset owners are unaware their phones support that feature.[1]

Laptops: An ineffective solution

The widespread acceptance of the laptop as an on-the-road email device has slowed the demand for truly mobile solutions. But relying on a costly laptop and land-based connection to stay on top of email is as bad an idea as traveling with a desk phone and hunting for a phone jack to check voicemail. Relegating email to a few hours at the beginning or end of the day, as most laptop-carrying road warriors are forced to do, makes email a fundamentally different medium for mobile workers than for their office-bound counterparts.

The individual and the organization share the high cost of laptop-based email. Individual productivity suffers as hours are unnecessarily dedicated to checking email. The rapid turnaround associated with traditional email is lost, and with it the organization is likely to lose opportunities to win new business or to avert problems that require quick action. Laptop-based email diminishes the value of mobile workers, who are likely to be among the

most important individuals in many organizations, making them second-class citizens in the organization's electronic community.

A better answer is here today

This discouraging scenario is changing rapidly. Digital network coverage has reached critical mass, allowing fairly reliable delivery of email to mobile phones in cities and on highways. On the device front, the introduction of usable text-centric phones like the Danger Sidekick sold by T-Mobile, the Handspring Treo, and the upcoming converged devices based on Microsoft and Symbian platforms, reduce the barrier to text usage on small devices.

To help organizations manage wireless email, a growing number of companies are offering services that extend the corporate email identity onto a mobile device. These near-turnkey solutions permit the rapid introduction, deployment and management of mobile text devices and services.

Mobile email is a vital technology that is rapidly reaching maturity in the American market. The runaway success of SMS in Europe and Asia in the 1990s shows the power of the wireless text concept and the willingness of customers to embrace the service – even when forced to use primitive text entry methods like cell phone keypads. With better devices, services and coverage, the economic benefits of always-on mobile email are emerging. When compared with the inefficiencies of current laptop mobile email delivery, those benefits translate into far better productivity for workers, and a dramatic return on investment for the organization.

Everyone's a mobile worker

The need for mobile email, like the need for cellular phones, is not limited to those who board airplanes every Monday and Friday. The problem of mobility is experienced by anyone who commutes, eats lunch, or at-

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tends meetings. At the core of the problem is a fundamental change in the way messages are delivered – from *push* delivery, in which messages arrive with no effort required on the recipient's part, to *pull* delivery, in which the recipient must make a conscious effort even to find out whether any messages are waiting. The difference between push and pull delivery of information is the fundamental difference between an office worker and a mobile worker. It is a core value of cellular phones, which restore the push capability to voice communications.

The difference between push and pull delivery can be both subtle and significant. The "voicemail-waiting" light on most office telephones implements push delivery for voicemail. Covering that light turns voicemail into a pull service, decreasing the likelihood that voicemail will be received in a timely way. This need to "call in and check messages" mimics the typical mobile worker's access to email and greatly reduces the value of voicemail in the office.

Of course, an office worker doesn't need to conduct this experiment to experience the problems of mobility. Simply walking out of sight of his or her office phone and PC will do the trick. And while most office workers carry cell phones so they can be reached in emergencies, the vast majority are completely cut off from their electronic mailboxes until they return to the office.

In a sense, the office worker's temporary mobility is worse than the road warrior's daily situation. A typical office worker carries no tools for email access and remains blissfully unaware of any urgent messages until his or her return. The ordinary justification for this state of affairs – "I'll just be gone an hour. What can happen?" – is a convenient deception. A great deal can happen during an hour-long lunch, or a half-day offsite business meeting, or even during

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ROI: Paying for mobile email

At first glance, the costs of mobilizing email – devices, enterprise software, support and training – seem prohibitively high, particularly in the current risk-averse business climate. However, studies of businesses that have adopted mobile email show significant offsetting cost savings, as well as dramatic increases in productivity that lead to very rapid break-even and high ROI. The benefits accrue from three areas: cost reduction, productivity gains, and return on opportunity.

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Cost Reduction

Any CIO will gladly list, probably from memory, the costs associated with supporting mobile workers. These start with laptop computers, which supplement their premium price with very high maintenance costs, and continue through network connection charges, hotel phone bills for dialup access, the costs of supporting or contracting for that dial-up access, and the security issues that stem from maintaining a large and heavily-used external portal into the corporate network.

One extra sale, or one averted crisis, could pay a substantial part of the service's cost. Multiplied by the number of mobile workers in an organization – and that includes the folks who can now go out to lunch without being "out to lunch" – the potential value of return on opportunity is high.

Most CIOs will also explain that a significant number of those laptops and connections are used for one purpose only: email.

Moving email onto mobile devices can save those CIOs real money in all of those areas. Typical mobile text devices cost one-fifth the price of a laptop or less, require no expensive configuration and far less support, and have their communication costs and network infrastructure built-in. Studies, including a 2001 Goldman Sachs analysis of Re-

search in Motion[2], have shown that some mobile workers willingly give up their laptops once they start to use true mobile email. In fact, power users, who usually demand the most capable and expensive mobile equipment, are the most likely to reduce their use of laptops.

Cost analysis, using assumptions based on industry studies [3] [4] [5], reveals that a hypothetical company with 100 workers who spent half their time on the road would recover nearly all of the direct costs of implementing mobile email solely through cost savings. [6] *(Note: This and the other analyses in this paper are available in an Excel spreadsheet at Waystation Partners' Mobilizing Email web site:*

www.waystation.net/stillman/cims).

Productivity

While cost reductions will more or less compensate for the expense of purchasing and implementing wireless email, the true value of the service is revealed in its effect on worker productivity. Delivering mobile email as a push service allows a worker to receive mail as it arrives, rather than in a morning or evening deluge. More efficient message management reduces the time required to deal with messages and allows for timely handling of important messages. The time saved can be used for more productive work like client contact, creation of deliverable content – or even sleep.

Industry studies[7] show savings of one-half hour to two hours per day per worker after the introduction of mobile email solutions. A relatively conservative assumption of one-half hour per day means a productivity bonus of $7500 per year for a typical mobile worker.[8] This productivity gain, combined with the cost offsets described above, leads to an almost immediate breakeven for the technology – and very large return on investment in the succeeding months and years.

Return on Opportunity

The concept of *return on opportunity* as the opposite of opportunity cost is relatively new, but it is well suited to this analysis. The ability to respond quickly to messages from current and potential customers allows companies to close more business, faster, and offers early adopters a competitive advantage.

Delivery organizations can also benefit from improved access to key personnel while on the road. The ability to bring the right people to bear on a problem or opportunity can improve the overall efficiency of an organization in ways that are very difficult to predict and measure, but are nonetheless real.

Beyond direct measures of productivity and cost savings, that one extra sale, or one averted crisis, could pay a substantial part of the service's cost. Multiplied by the number of mobile workers in an organization – and that includes the folks who can now go out to lunch without being "out to lunch" – the potential value of return on opportunity is high.

> *The potential for multiple individual solutions to the wireless mail problem should start alarm bells ringing in the CIO's office for at least two reasons. First, by adopting these simple solutions, workers are forwarding internal corporate messages over the public airwaves – almost certainly without encryption or security of any kind.*

Here it comes, ready or not

In addition to the clear benefits of adopting mobile email, corporate IT managers need to be aware of the risks of ignoring this significant technology.

The process at the heart of mobile email is fairly simple: forwarding mail to the email address of a text-capable mobile device. The ability to forward email is a core capability of virtually every modern email client. This includes the two most popular corporate email platforms, Microsoft Exchange and Lotus Domino.

Forwarding capability offers virtually any competent user of email the power to create a handmade mobile email solution. A number of turnkey products, like Martin Scott's excellent (and free) Wireless Mail product for Lotus Notes[9], make the job easy, cheap and even more effective.

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First, by adopting these simple solutions, workers are forwarding internal corporate messages over the public airwaves – almost certainly without encryption or security of any kind. (The fact that voice conversations over cellular phones are also subject to eavesdropping is generally ignored by corporate security folks and the phone users themselves.)

Second, the underground adoption of a significant new technology should bring back memories of the 1980s. Back then, IT managers suddenly discovered that critical data was being stored, and business processes were being handled, on newly minted personal computers that they did not understand, control or manage. It took years for companies to back away from the possibility that an accountant could trigger a corporate disaster by spilling coffee on a floppy disk.

The information disseminated by email can be as important, and as sensitive, as the data that was stored on that diskette in the days before network backups. Beyond the benefits that the larger organization can reap from mobile email, it is vital that IT departments understand this new technology so they can manage its implementation instead of simply reacting to it.

Conclusion

Simply put, mobile email has the potential to vastly improve the productivity of anyone who depends on email. It offers road warriors the same access as office-bound workers to the vital information and conversations that take place in every organiza-

tion's email traffic – the same advantage the cellular phone offers for the spoken word.

Any mobile worker – and every worker qualifies as mobile at some time or another – can benefit from mobile email. Every CIO should put a pilot project on his or her short list of areas to investigate in the very near future.

Note: Links to all references quoted in this article, as well as the Excel spreadsheet detailing ROI for mobile email, are available at Waystation Partners' Mobilizing Email web site:

www.waystation.net/stillman/cims.

[1] Upoc's annual survey of wireless usage in America, as reported by PMN on February 25, 2003.

[2] *PDAs Storm the Enterprise*, Goldman Sachs, April 2001. Quoted by ZDNet's Richard Santalesa.

[3] Ibid.

[4] *Will RIM Blackberry and other handhelds bring about the demise of the notebook?*, Ephraim Schwartz, March 19, 2001

[5] *Gadget love strikes the enterprise*, Toni Kistner, Network World, March 26, 2001

[6] Waystation Partners Mobile Email ROI worksheet,

http://www.waystation.net/stillman/cims/roi_worksheet.xls

[7] *The CIO Wireless Resource Book*, Synchrologic, p. 20

[8] Waystation Partners Mobile Email ROI worksheet,

http://www.waystation.net/stillman/cims/roi_worksheet.xls

[9] http://www.martinscott.com/WirelessMail

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