

# Getting the Mobile Workforce Better Connected

By Keith Mallinson Wednesday, February 28, 2007

U.S. workforce mobility is extensive, but corporate IT management falls short in providing mobile workers access to the range of corporate applications they need. A holistic approach to delivering mobile application access will give corporate management more control.

Since 2003, the proportion of U.S. mobile workers who spend 20 percent or more of their time away from their primary workplace has risen from 39 percent to 41 percent, according to Yankee Group's annual Transatlantic Wireless Business Survey of corporate decision-makers. This currently equates to 50 million mobile workers.

Remote and mobile communications support these people, most of whom have mobile devices, but only 38 percent of these were provided by their employer. More than 50 percent of business subscribers are individually liable for their accounts, implying that most corporate expenditure for wireless voice services occurs via travel and expense reporting and reimbursement, with little or no oversight from corporate purchasing or control.

Clearly, enterprises are under-serving the needs of their mobile workforces. These penetration figures are overwhelmingly driven by adoption and usage of voice with corporate decision-makers stating that 47 percent of users have conventional cell phones, compared to just 27 percent with a smartphone or PDA. The BlackBerry may seem ubiquitous, but it's used by less than 5 percent of the U.S. mobile workforce. Only 18 percent of mobile workers have wireless wide-area data access to business applications and information.

The growing mobile workforce is forcing companies to change the way they build and deploy their information systems. Mobile e-mail is on the rise, but what about access to other corporate applications? Web-based applications are increasingly popular with CIOs, but these can be particularly challenging with mobile devices because they depend on persistent network communication.



Most enterprise applications work identically on any desktop or laptop, but they were not built for mobiles that typically have much smaller screens, keyboards and significant differences between devices. In addition, premise-based corporate application access can rely on multi-megabit per second communications with tens of millisecond server response times and near-constant network availability. In some cases, mobile networks can deliver several hundred kilobits per second, but this is only on the downlink with much slower uplinks. Performance deteriorates at cell boundaries or under heavy traffic loading. End-to-end transit delays can run to several hundred milliseconds - playing havoc with chatty client-server interactions, and cellular connections frequently fail or cannot be established.

CIOs are concerned about security as well as supporting a wide array of third-party software on a wide variety of different devices. For now, a typical solution is to provide staff with one narrowly focused corporate device - tightly integrated into the corporate IT infrastructure - such as the Blackberry for e-mail and calendar, and then just let employees make their own choice of a second device for voice and other personal applications, including address book, Web search and private IM.

Carriers predict that corporate wireless purchasing will follow the PC trend in the 1980s, with centralized control replacing individual or departmental purchasing. This change is impeded by personal preferences for carrier network, devices and, in some cases, unwillingness of enterprises to take on the liability. The pressing need to provide secure, reliable and widespread access to corporate applications might eventually override these factors.

The success, universality and familiarity of mobile e-mail provide the opportunity to exploit an existing user model with this application suite's integration to backend enterprise systems. The recent announcement of Duet - a collaboration between Microsoft and SAP - provides integration into backoffice applications such as an ERP system without directly accessing the application on the desktop or mobile device. Duet's capabilities include leave management, recruitment processing, simplified purchasing management and employee data management via Microsoft Outlook that populates the necessary data into SAP's ERP, HCM or SCM applications.

CIOs must take stock of their IT infrastructure and supply, and then plan to transform these to support the needs of their entire mobile workforce. A more holistic approach to deployment of mobile applications just might help increase CIO influence and control on other mobile purchasing that is going on in their organizations. Policy and cost-benefit analysis should determine wireless solutions and priorities rather than technological or device preferences.

Above all, flexibility is key. Mobility solutions need to service a wide variety of users, applications, devices and networks. Plans must accommodate change, as devices and other solution elements become obsolete.

*Mallinson is executive vice president of the Yankee Group's global Wireless/Mobile research and consulting.*