



*iBus*<sup>®</sup>

*Softwired*

*Softwired's Mobile  
Messaging Solution*

*Softwired's Key Requirements  
for Successful Enterprise  
Mobile Employee Automation  
[MEA]*

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## Executive Summary

Mobile or wireless access to the enterprise is going mainstream – driven largely by the needs and requests of individual employees within the enterprise. It is clear that although the demand for wireless access is generally coming from the bottom up, the management of wireless access needs to be driven from the top down, otherwise enterprises will find that wireless information is a complex, chaotic and an expensive endeavor with at best ambiguous results. As the saying goes in business, time is money. This is a commonly accepted truth except where information technology and in particular wireless technology are concerned. In order for a business to compete today, that business must mobilize its paper bound business as quickly as possible if it is to survive. Any business that fails to do this will fail.

The key to turning wireless information access to corporate data into a strategic IT initiative that delivers tangible ROI is developing an enterprise wireless information strategy and this is where top management needs to embrace this paradigm. Building such a strategy requires the cooperation of IT and senior business managers who together determine how wireless information access can be used to improve productivity, customer responsiveness and other key metrics within their business.

Over the last several years Softwired has looked at various mobile solutions and found that each had shortcomings that limited their use in the field; for example, inadequate business process, old technology, slow or risky implementation process, difficult or no change management solution, and various other deficiencies.

Our analysis revealed a sad tale: the direct result of this was slow or resistance to adoption by mobile workforce personnel who couldn't see the day-to-day value of using the products [managers sometimes said that employees were antagonistic to new mobile applications which was vented by mobile workers]. Also, CEOs, CIOs, and IT executives told us that these and other problems kept current mobile solutions from providing enough 'out-of-the-box' business value to justify purchasing them.

To meet this challenge, Softwired, which is a market leader in mobile business messaging software having released the first version of iBus//Mobile in December 2000, set about defining the characteristics of successful mobility with Softwired's Key Requirements for successful Mobile Employee Automation [MEA]. Once we defined these, we enhanced our solution based on these Key Requirements that fit management's business needs as well as the needs of those using the products on the go – the end users.

The byproduct of Softwired's Key Requirements for Successful MEA was requirements roadmap of what was needed to build the best mobility solution in the world. This information we pass on to you the decision makers.

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By the way, we promise we will hold the self-advertising to a minimum in this document, but we would like to say this: If you like what you read in the document and you'd like to know more, please contact us to find out why Softwired is the most talked about mobile employee automation solution available today. Give us a call at +41-43 466 0787 for more info about Softwired's iBus//Mobile and other standards based internet products iBus//MessageBus, and iBus//MessageServer.



## The Mobile Challenge

In the past few years, business management has realized that it is time to conquer their last un-automated domain; the mobile workforce. Why? Because the automation of mobile employee operations is a financial prize that cannot be overlooked. Business managers want to introduce more visibility and control capability so that they can reap the benefits that mobilizing in the right way will provide.

Top and senior managers, sales people, service technicians, delivery personnel and other members of the mobile workforce [in other words you] also want what was the sole domain of the tethered or office-bound worker, [valuable] information at their fingertips. They are demanding the same access to information and automation tools and enterprise information that have been enjoyed within the four walls.

Also in the last few years, many software companies saw the opportunity that mobilizing enterprises represented and attempted to solve the technical issues in a variety of ways. One of the most common strategies was to produce Point/Custom Solutions (solutions created to solve a single problem), which attempted to solve the mobile employee automation challenge by loosely connecting current enterprise systems to a common connection and moving information in and out of enterprise applications and data stores to provide access to the information across all systems within the enterprise.

As buyers soon found, wireless Point/Custom Solution deployment is extremely invasive, many times requiring the creation of separate data stores in order to deliver any additional application functionality, and often ending up being expensive, time consuming, and risky.

Why? Point/Custom Solution were often based on proprietary technology and ended up having huge total costs over the life of a project. The other strategy, the Enterprise Application Extension (extending an existing enterprise application into the mobile world) depended upon application providers attempting to mold processes and technology designed for a "static" world, going mobile. This latter model is best described by one-shoe fits all sizes, which, is best exploited by Microsoft and its windows desktop solution in the "static" world. Enterprises, however, are somewhat different and have many different types industry specific applications based on the characteristics of their vertical market profile and information needs.

Once again, like the other strategies this was often expensive, time consuming, and high-risk to the customer's current enterprise systems.

Let's look at the specific problems over the page.....



## All Mobile Solutions Are Not Created Equal

Here is a specific list of shortcomings that limited Point/Custom Solution, Web Browser, and enterprise Application Extension as mobile employee solutions. All of the mobile employee solutions/applications based on these technologies failed to deliver on one or more of the following critical functions:

- Lack Process Governance In The Field – Limited or no business process governance on the mobile equipment. No process redirection if problems occur.
- Old Or Inappropriate Technology – Web Browser, proprietary synchronization, forms-based, and other old technology minimizes the amount of information that can be held on the mobile equipment. Wireless-required applications prevent information requests and updates. Synchronization issues can corrupt information.
- Complex Proprietary Implementation – Not easily scalable. Complex implementation due to integration and proprietary technology and need for sophisticated proprietary programming tools.
- Intrusive Integration – Risky, intrusive integration and limited connection to CRM, ERP, and other enterprise database systems. Successful only by heavy customization and programming changes to current enterprise databases.
- Resistance To Adoption – Resistance to user adoption. No event driven process. Forces process change, which slows operations and revenue generation. Intensive text entry.
- Low Or No Security – Little or no security on the mobile equipment. No integration with existing security policies. Connection continues to share company-critical information to the mobile equipment even after stolen.
- Not Adaptable – Not adaptable to changes in business environment. Proprietary connection and equipment needed. Not compatible with most IT infrastructure and hardware. Applications have limited or provide for no customization.
- No Subscription and Change – Upgrades and modifications a chore. No subscription and change management system.

So as an organization what do you need to consider? *The Key Requirements for Successful Mobile Employee Automation* is on the next page...



## **Top Key Requirements for Successful Mobile Employee Automation Applications**

To accomplish successful mobile employee automation, a new class of business solutions had to be considered, built on industry enterprise standards based on industry wide and globally dispersed J2EE application platform, specifically based on Java Message Service [JMS] and Microsoft® .NET and using non-proprietary tools to ensure rapid implementation, integration, and adoption into both the business and technical community.

These new mobile employee automation solutions such as SoftwareWire's iBus//Mobile, are built with the ability to manage deliberate incremental change and to be deployed in stages that realize the fastest time-to-value, low overall risk to current processes and IT investments, along with the best long-term payback, Here's what you should be looking for:

1. Smart Client: Effective Connected and/or Disconnected
2. Business Process-Driven Mobile Solutions
3. Agnostic to Network Connection Type
4. Context Awareness and Sensitive Data Management
5. Cost Effective Business System Integration
6. Data Integrity and Management Across Multiple Data Sources
7. Effective Change Management and Deployment
8. Portable Across Mobile Devices
9. Rapid Application Configuration and Change
10. Highly Secure and Scalable

But what does this mean to you? The next section will provide a closer look...



## A Closer Look AT The Top 10 Requirements

- Smart client: Equally effective connected and/or disconnected inline with business process  
HOW: Smart [Thin] Client technology utilizes connected state (if available – detects connection on its own) online with business process – so if status required this can be initiated online and seamless (no user intervention required) within the business process.
- Solution must be business process-driven  
HOW: Meta Data-driven system that help configure the application solution with vertically rich industry-relevant steps that mobile employees can follow to get their job done faster and more accurately.
- Agnostic to wireless/wired network for client to server communication (CDPD, GPRS, GSM, 802.11, Cradle, etc). Reliant only upon data channel network connecting to the Internet and communicating over HTTP Port 80.  
HOW: Utilize JMS over TCP/IP or UMTS for all communication between client and server.
- Context awareness and context sensitive data management and deliver only data relevant to a specific user and processes in the field. Minimize data on client devices.  
HOW: The solution should identify and deliver only the information that is relevant to each mobile device [user], based on the needs of the business processes in the field. This results in a much smaller footprint on the client device. Additionally, using iBus//Mobile the client can change the amount of data it communicates to the server, based on connection state and data priority.
- Cost-effective business system integration  
HOW: Prepackaged integration tools, templates and a standardized integration method via JMS coupled with knowledgeable enterprise infrastructure expertise ensure cost-effective business system integration.
- Data management and integrity across multiple disparate data sources and handle conflict detection and resolution.  
HOW: The solution should only synchronize with necessary 3<sup>rd</sup> party information and should not need an interim data store [but rely on existing data store]. This enables high performance and flexibility as needs change.
- Effective change management and deployment  
HOW: Should include an easily configurable solution that can change data, objects, rules, and mobile forms definition. The changes should be able to be sent to each mobile device in the field via a subscription update management technology.
- Portable to handle different mobile client platforms (WinCE, Tablet PC, J2ME [MIDP] and .NET CF devices etc.)  
HOW: Using .NET CF or J2ME on the client and delivering a Mobile Client Access Library enables for easy port to other technologies.
- Rapid application configuration and change  
HOW: The solution should include tools that can easily configure data, business objects, rules and assemblies. It should also deliver a rich set of base libraries for easy customization in the field within the Visual Studio .NET or J2ME environment.



- Highly secure and scalable

HOW: Full security on the client data store with passwords and encryption to security in the data transmission with SSL and/or VPN to security on the server being behind a firewall. This is accomplished by using a intelligent client device such as the programmable PocketPC or Symbian based PDA's and a standard for communication such as JMS, .NET and the Windows or Java Distributed architecture design, which have proven consistently to be the most predictable enterprise platforms.

Need a Mobile Employee Automation check list? Please turn the page...



## Your Mobile Employee Automation Checklist

#	Mobile workforce Automation Checklist	#1	#2	#3
1.	<b>Smart Client: Effective Connected and/or Disconnected</b>			
2.	<b>Business Process-Driven Mobile Solutions</b>			
3.	<b>Agnostic to Network Connection Type</b>			
4.	<b>Context Awareness and Sensitive Data Management</b>			
5.	<b>Cost Effective Business System Integration</b>			
6.	<b>Data Integrity and Management Across Multiple Data Sources</b>			
7.	<b>Effective Change Management and Deployment</b>			
8.	<b>Portable Across Mobile Devices</b>			
9.	<b>Rapid Application Configuration and Change</b>			
10.	<b>Highly Secure and Scalable</b>			

Please use this checklist if you are thinking of buying filed force automation for your business...



## That's It!

Thank you for taking the time to download and read this document. We hope you have learned a little more about what you need for successful deployment of mobile workforce employee applications. In fact, we suggest you use *Softwired's Key Requirements for Successful Mobile workforce Automation* as a checklist against any mobile employee automation solution you think you would like to buy.

However, as we said earlier, the outgrowth of *Softwired's Key Requirements for Successful Mobile employee Automation*, was the genesis of understanding of what was needed to build the best mobile employee automation mobility platform in the world.

And, as you might assume, Softwired mobile software solution already passes these top key requirements with flying colors. This is also why Softwired's iBus//Mobile mobility platform has the edge over competitors.

For more information about how Softwired mobile employee applications pass the KEY test, turn the page...



## Softwired Mobile Employee Software Solution

Softwired started by creating a technology that could deliver the kind of mobility that the best enterprise mobile employee automation required. That's why Softwired pioneered iBus//Mobile in 2000 built from the ground up to take advantage of industry-standard JMS, Microsoft® .NET, and Softwired patented and patent-pending mobile innovations.

This technology mix provides low-risk, seamless, quick-to-deploy integration between Softwired applications and your SAP, Oracle, Siebel, and PeopleSoft enterprise systems without having to resort to intrusive programming. The real-world business benefit is that mobile employee personnel can finally have all the critical customer information in their hands when they need it – for up-sell, cross-sell, and other kinds of sales, service, and support – and pass new and changed information back to the enterprise systems as needed.

This also means Softwired iBus//Mobile supports robust prepackaged business processes on Pocket PCs, PDA's and other mobile equipment. This speeds up implementation and adoption with the added benefit that Softwired software solution can be used 'out-of-the-box' to accelerate productivity with minimal training.

Softwired mobile software solution also offers flexibility and adaptability that other products cannot match. For example, Softwired's powerful but easy-to-use OTA change management system keeps Softwired software and the information in them up-to-date without complex programming. It also means you can configure Softwired software to your needs and update your field sales and service personnel in hours, not weeks.

Softwired's iBus//Mobile mobile employee automation software can put the power of the enterprise into the hands of your mobile service and sales professionals and give you the kind of ROI you want and low TCO sooner than you think. Because Softwired works closely with partners like Microsoft®, SAP, and Sun, Softwired products and services are available anywhere in the world.

For more information about iBus//Mobile, please turn the page...



## **Softwired iBus//Mobile Mobile Enterprise Solution**

Softwired's iBus//Mobile is a patented software product based on standards and combines key features, based on the Key Requirements for Successful Mobile Employee Automation that give Softwired's mobile employee automation solution a technical and operational edge over our competitors.

The concept of iBus//Mobile grew from our mobile employee automation analysis and realization that many of the mobile solutions we looked at had one or more shortcomings that reduced their usefulness in the field.

Softwired iBus//Mobile mobile employee solution, solves the challenges that have limited mobile employee solutions currently on the market. iBus//Mobile includes all the following features:

- **Robust Process** – Robust business process on mobile equipment - all necessary process and enterprise information is consistent, useful, and available at all times.
- **Powerful Technology** – The most powerful mobile employee solution available today using J2EE [WJMS], Microsoft® .NET, and Softwired patented and patent-pending technology.
- **Scalable Implementation** – Fastest scalable unlimited implementation; predictable cost – most installations can pay for themselves in 12 months or less
- **Superior Integration** – Risk free, non-intrusive integration and simultaneous connection to one or more CRM, ERP, via JMS and enterprise database systems via a JDBC with no information lost and all conflicts resolved
- **Faster Adoption** – Rapid, trouble-free user adoption because the event driven Softwired platform enables the user to be guided through their familiar tasks more efficiently via enterprise applications, which requires little training to be productive immediately
- **More Security** – Protect information, even if the mobile equipment is lost, with up to four levels of security (encryption, authentication, application security, and information security)
- **More Adaptable** – Connection agnostic – Softwired mobile employee software is compatible with most IT infrastructure and hardware and is easily configurable. Automatically protects information like problems related to connection speed, transmission latency, and potential disconnection
- **Subscription and Change** – Easy-to-manage upgrades and modifications via Softwired's OTA subscription and change management system