Handheld Device Trends in the US Insurance Industry

TOWERGROUP℠
The Power of Knowledge

Cynthia Saccocia
Research Director, Insurance

Bob Egan
Research Director, Emerging Technologies

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Executive Summary

TowerGroup has been engaged in a series of research projects on how wireless technology and mobility are influencing business decisions in the financial services industry. This report examines usage of wireless handheld devices in the US insurance industry. To further refine our observations, we differentiated between roles of users of handheld devices in the insurance industry, focusing on field personnel in sales and claims.

Our observations indicate that handheld device utilization in the insurance industry is growing. TowerGroup believes this growth is primarily due to wide-scale improvements in ease of use of applications for handheld devices and, perhaps more important, technological advancements in wireless software applications and platforms that make the solutions reliable.

A fundamental shift has occurred that improves the value proposition of handheld device solutions for insurers. The shift is toward accelerating business velocity by mobilizing customer-facing applications. This is in direct contrast to the early days of mobile devices, when cost justification for adoption of wireless handheld devices was based simply on their use for internal e-mail communications. Handheld devices are rapidly becoming a necessity for doing business because they permit real-time access to important revenue-generating data and information.

To summarize the key findings from our research:

- The insurance industry's spending on mobile technology has been increasing at a compound annual growth rate (CAGR) of 18%.
- Adoption of handheld devices in the insurance industry continues to escalate, although it lags a few years behind the adoption curve in the US banking and securities and investments industries.
- Mobile solutions can drive an efficiency gain of up to a 30% gain in claims processing.
- One of the most innovative and practical deployments of wireless communications via handheld devices is near-real-time notification to adjusters of a new claim. Dynamic case assignment, including the transmission of first notice of loss, location, and routing, is tied to an emerging claims utility that acts as a conduit between independent and captive claims adjusters and a handful of leading carriers.

- The proliferation of mobile devices drives benefits in business continuity because implementing business applications on handheld devices forces simplification of business processes and data as well as standardization.
- The key question an insurance company should ask is not whether it should employ mobile solutions but where in the organization mobility can be most effective.
- Successful investment at the lowest cost of ownership can only be realized if an insurer determines what platforms and applications best align to the company's overall business operations and when mobile applications should be deployed in various operations.

Mobility is an inevitable technology solution for insurers. The rise in mobile and wireless technology capability is the catalyst that the insurance industry needs in order to keep pace with agents' and customers' insatiable demands for real-time business processes. Real-time efficiencies will be critical to the internal operations of insurance companies if they are to grow and flourish. The proliferation of mobile technologies makes their use in people's daily routines viable and commonplace.

This research report outlines opportunities and options available to insurers to respond to a highly competitive marketplace through mobile technology.

Background on Handheld Device Adoption

Handheld devices such as personal digital assistants (PDAs), smartphones (cell phones capable of supporting mobile application solutions), and tablet or notebook PCs are no longer on the cutting edge of innovation. They are now commonplace tools of business and daily life. TowerGroup research finds that mobile devices and services are nearly ubiquitous in the financial services industry, where they join communities of internal and external users. As they become commoditized, finding greater value from these devices will depend on maturing individual usage from business governance to functional processes and will require platform extension.

Early trends demonstrated that use of handheld devices in business yields benefits by converting downtime to productive time. At major financial services institutions (FSIs), early adoption occurred at the senior executive level. The demand for time-saving business governance applications such as e-mail, calendar functions, and contact information was the initial key driver of adoption of this mobile technology. Industry studies in 2004 found that executives could save approximately one hour per workday by using mobile technology, which allowed them to respond more efficiently to other demands.

The allure of "any time, anywhere" access simply for business governance is now waning, TowerGroup finds. But there is rising demand from executives for real-time information such as sales reporting and key performance indicators. The availability of real-time applications will pave the way for broader adoption of mobile solutions enterprise-wide. Characteristically, adoption of handheld devices at an FSI flows from senior executives to business line managers and eventually permeates select business units. Companies repurpose older devices and upgrade devices for experienced users. As an institution expands usage of handheld devices from a limited number of executives to hundreds of users, there is a greater need for the business to justify the investment. It is at this point that we see the role of IT expanding to a centralized function to establish strategy, standards, and policies regarding these devices and to better evaluate the company's infrastructure needs.

The following sections explore these trends further as they relate to the insurance industry. We will focus on how handheld devices and the business applications they enable will be an important aspect in the daily routines of insurance industry field personnel and how these devices provide some competitive edge in the market today.

General Mobility Trends in the Insurance Industry

The benefits of using mobile solutions are changing the face of the insurance industry. Mobile devices such as handheld devices, laptop computers, and tablet PCs enable field personnel to do their jobs more efficiently with less downtime.

Challenges

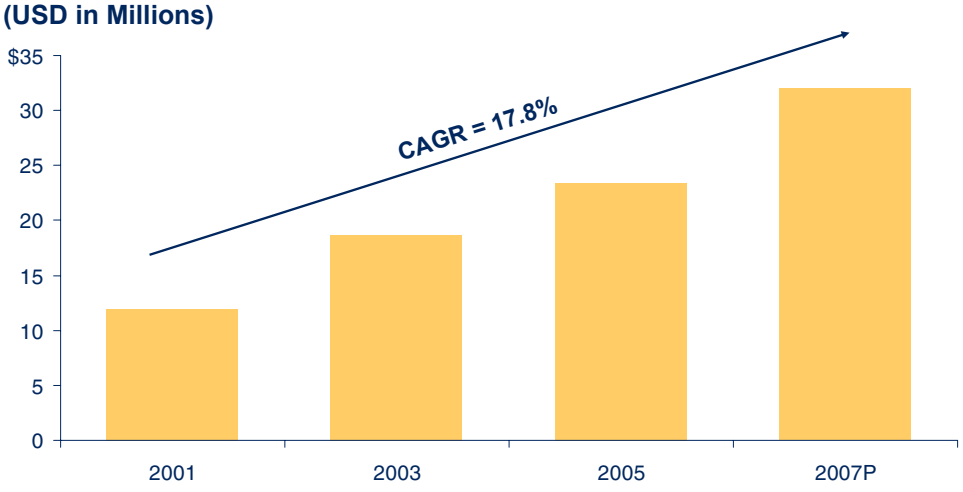
Besides benefits, the uses of mobile and wireless technology in the insurance industry present new challenges, including:

- Defining the need for mobility for lines of business and ensuring alignment with IT strategies
- Procuring the right device(s)
- Controlling and managing the proliferation of devices
- Determining the right combination of mobile operator(s) and suitable telecom plans
- Selecting the applications platform for different business units
- Ensuring ease of use of applications
- Addressing new data security and personal privacy issues
- Upgrading existing infrastructure to realize fully the value of the mobile investment

Exhibit 1

TowerGroup

US Insurance Industry Spending on Mobile Technology (2001–07P)



Source: TowerGroup

Spending on mobile technology is one of the fastest growing components of IT spending in the insurance industry. Over the past few years, insurance industry spending on mobile technology has been increasing at a compound annual growth rate (CAGR) of 18%, while the industry's total IT budget growth has been less than 3% year over year. Exhibit 1 illustrates how TowerGroup expects this trend to continue through 2007. This spending trend indicates that CIOs and business managers recognize the value of mobile solutions and are willing to adjust their budgets and spending priorities to reflect that value.

TowerGroup believes that larger carriers that are in a position to deploy mobile technology while mitigating the associated risks will gain the greatest advantages. Some ambiguity still exists in the insurance industry as to whether mobile solutions are merely nice to have or truly necessary. However, TowerGroup believes that the organic growth of adoption observed in the industry is likely to have a compounding effect. As a result, mobility will be a business necessity if a firm is to stay current and competitive.

TowerGroup research has shown that handheld device adoption in the US insurance industry continues to escalate. Although it lags a few years behind the adoption curve in the US banking and securities and investments industries, the trends are nearly identical. Further, the insurance industry is quickly following securities and investments industry in deployment of handheld device solutions for field sales personnel.

Handheld Device Usage for Insurance Sales

Gathering assets through partnerships and affiliations is critical for insurers to increase revenue, and third-party distribution will continue to dominate the distribution of insurance products. Exhibit 2 illustrates the importance and variety of partnerships by showing the distribution of sales of variable annuities by the various distribution channels. The variable annuity product is a bellwether for other products.

Exhibit 2

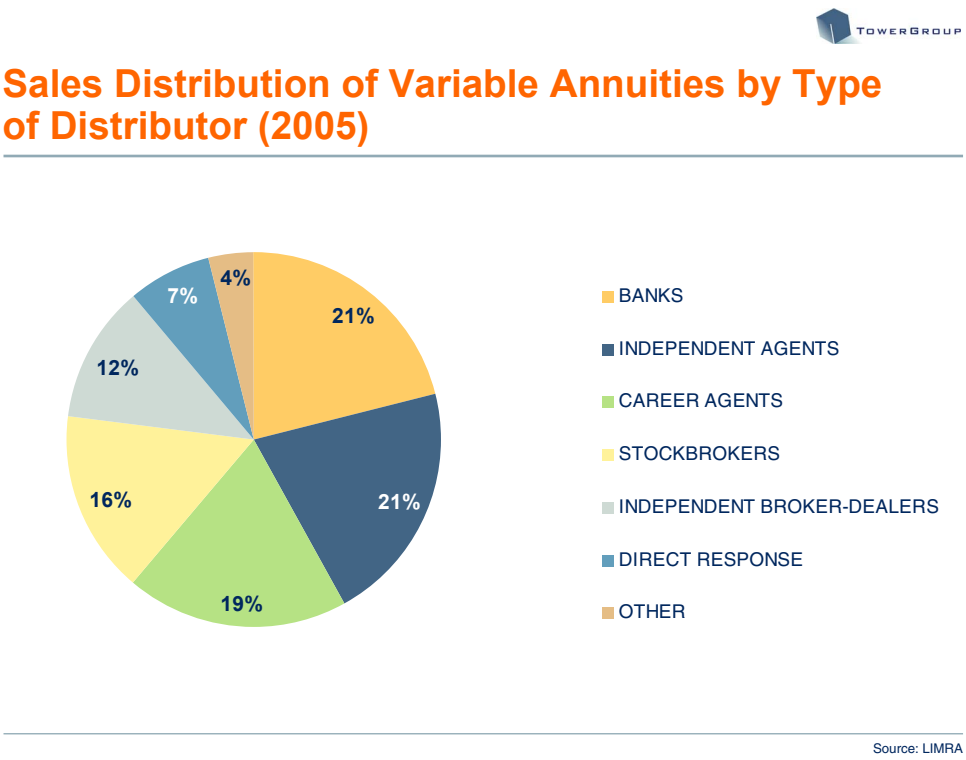


Exhibit 2 indicates that insurance distribution is complicated and involves a network of specialists to reach and support a variety of retail distribution outlets. Although each distributor offers distinct opportunities for insurers to increase sales, each distributor also adds to the complexity and difficulty of supporting and servicing a burgeoning network of distributors. Insurers typically manage these relationships through a network of field sales personnel.

Sales personnel typically spend most of their workday away from an office, and their workday frequently includes irregular hours. These work customs should compel insurers to seek cost-effective ways to deliver "any time, anywhere" interactions between sales personnel, their home office, and their clients. Since most interactions involve day-to-day contact on simple communications for updates and information, insurers must make efficiency a priority.

Although sales roles and responsibilities differ across the insurance industry, usage of field devices does not vary widely. It typically involves some form of PDA or smartphone and a portable computer such as a tablet PC. The key differences in usage of these two devices is that people tend to use handheld devices for simple tasks such as e-mail to access contact information or customer data for simple interactions but use portable computers (laptops or tablet PCs) to collect and analyze large amounts of data to make complex decisions. In our research, we found that much has changed in device adoption because of a direct correlation between device usage and application readiness.

Initial trends indicate a substantial increase in deployment of handheld devices among insurance wholesalers and product specialists over the past 18 months, especially at top-tier life and annuity (L&A) insurance companies. The key reason is that wireless software is advancing beyond business governance applications to more revenue-intensive ones. This progress in wireless software applications provides a window into existing systems and exposes pertinent data housed in different repositories to the handheld user. In most cases, this window is simply a dashboard for client, marketing, portfolio, and reporting data in real time. Large-scale activations now entail some form of platform extension in customer relationship management (CRM), sales production data, and analytics and involve any one or all of these areas.

For example, users now have a view into data such as account values, positions, recent activity, and client information. Value is added when companies include regular updates of sales production reports and territory analysis. What is interesting is that the size of the device is forcing companies to decide about what data is most valuable to sales productivity, what investments in the network are necessary, and what platform to use.

Insurers also recognize benefits in business continuity because implementing business applications on handheld devices forces simplification of business processes and data. The proliferation of applications and devices promotes standardization, which maximizes the return on investment (ROI). This is an important exercise because it brings the business needs and IT capabilities closer together. Further evidence indicates that when pertinent data housed in different repositories is available to users of handheld devices, adoption rates of the devices increase, which drives down the total cost of ownership.

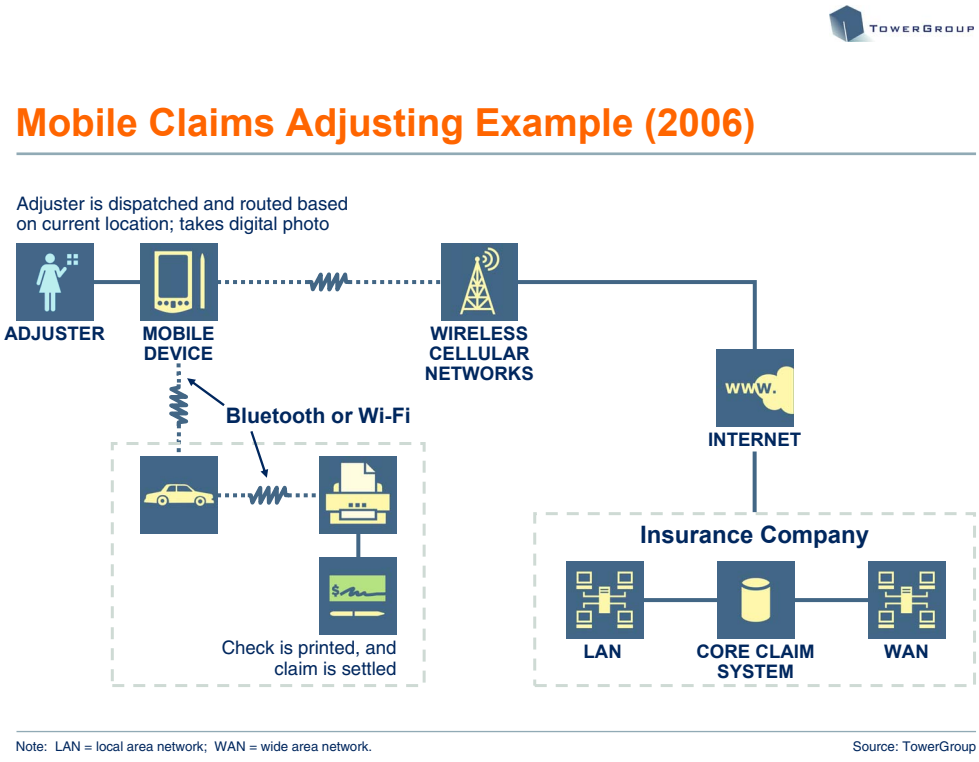
Increasingly, insurance companies are able to articulate clearly the business reasons for expanding their investments in mobile devices and the required infrastructure. The natural progression in functionality for handheld devices to support sales makes perfect sense. Field personnel spend most of their time away from the office and need access to revenue-generating data and information. While mobile business governance saves approximately one hour per day in internal-facing productivity, these gains are no longer sufficient by themselves. If adoption is to be widespread, insurers must focus their investments on wireless and handheld device solutions and applications that emphasize increasing business velocity. Mobile devices equipped for business applications have a better value proposition because their use can improve the

insurer's own value proposition. Generically, these applications center on sales force automation (SFA) and customer relationship management (CRM), especially when tailored to the requirements of a specific line of business, TowerGroup believes. In our research, we found a number of viable wireless software vendor solutions to support field sales personnel. Such support is necessary for insurers to rationalize the investment in handheld mobile solutions.

Handheld Device Usage for Claims Services

Besides sales personnel, the other group of insurance industry employees for whom mobile devices are essential are the field personnel who support claims adjustment. These workers investigate claims, assess damage, and audit claims information. They perform the majority of their work away from their home office, so their needs for mobile access to data are similar in many ways to the needs of sales personnel. It is important to note that not all insurers directly employ the people who deliver these functions. Instead, many insurance companies outsource the claims adjustment function entirely. Others have a small staff of full-time adjusters for day-to-day business and hire adjusters on a part-time basis in times of catastrophe.

Exhibit 3



Overall, mobile solutions are organically being adopted in claims processing and can improve day-to-day service as well as field service in times of disaster. Mobility lessens the need for temporary offices frequently established as part of a disaster response. Instead of adjusters shuttling between a temporary office and the customers affected by a disaster, they can assess damage on site and immediately communicate with the carrier. For example, The Hartford used mobile technology to settle more than 51,000 claims related to Hurricane Katrina. By mid-2005, the company had settled 96% of those claims, thanks largely to its "Claims Expediter" mobile system, which helped adjusters make immediate claims payments on site even though they lacked electricity and phone service. The company's adjusters used global positioning systems (GPSs) to find the claimants' locations in places where landmarks and road signs were gone. The Hartford is not an isolated example, State Farm having leveraged wireless technology in Florida in 2004 to respond

to over 59,000 claims after Hurricane Charley. However, The Hartford's use of mobile technology in the more recent disaster was innovative because it was so pervasive.

Exhibit 3 illustrates a typical claims process flow using mobile devices to move data and information from the field to the home office. TowerGroup estimates that efficiency increases 20% to 30% because the transmission of information is on demand and more efficient than the traditional process of taking notes and photos and using them later to compile a report. The mobile solution reduces a two-step process to a one-step process.

TowerGroup first reported the emergence of some handheld device usage among field claims personnel some years ago and now sees proliferation of devices because of advancements in wireless software applications. While most field claims personnel are still using handheld devices for internal-facing business governance, there are a few interesting developments. We found that carriers could expedite claim handling by instantly notifying adjusters of a new claim and assigning them the case dynamically. Carriers can transmit key data on first-notice of loss, location, and routing. The adjuster can accept the business in real time, thereby improving continuity between the two parties. The best use of this business flow is with an emerging claims utility that acts as a conduit between independent and captive claims adjusters and a handful of leading carriers.

With nearly 205,000 claims adjusters in the industry, this group offers the best example of a heavy user of technology in the field for business services. The benefits are clear—a claims adjuster using mobile devices can collect detailed information on the spot, which often improves the accuracy of data and transactions. Mobile technology streamlines claims processing, increasing productivity in the process and reducing the potential for adjudication of claims and fraudulent claims. Insurers must consider how a business process will work with handheld devices and be diligent in watching the emergence of applications and services to optimize these processes further.

Barriers to Adoption

The insurance industry is not unique with respect to barriers to adoption of handheld devices. The same obstacles are prevalent across the financial services industry. The first is security: Nearly 84,000 handheld devices are lost in taxicabs in New York City alone each year, a statistic indicating that keeping customer data secure is of utmost importance. Another obstacle is storage capacity: Embedded storage in handheld devices is very limited. Broadly exposing and increasing mobility for existing system data raises awareness about the quality and security of the constituent data repositories. A third obstacle is inconsistent connectivity: The infrastructure cannot support a broad wireless community. The performance of wireless network connections remains inconsistent, spotty, costly, and insecure.

The list of objections is long and presents arduous challenges. However, solutions and advancements in a number of these areas offer a host of different ways to overcome these issues.

- **Security.** The importance of securing sensitive customer data requires robust solutions in encryption and device access control. A number of alternatives are available, including biometrics for user authentication, password control, USB keys, and tokens. Protection against theft may also include software that will authenticate, monitor, log, and remotely wipe devices in addition to an "always on" or "archival" encryption. Each security solution has a different price point for deployment.
- **Storage.** As the demand for more data and complex presentations of information grows, so does the need for storage capacity. Companies can now employ "removal storage" cards, such as Secure Digital (SD) devices, in order to compensate for the lack of resident storage in PDAs and smartphones.

Insurers would be well advised, however, to consider the increased security risks and variables introduced by removable storage devices.

- **Connectivity.** Latency for network-only based applications is still high, and under many circumstances connections are not 100% reliable all of the time. Therefore, consideration must be given to a self-synchronous model, or offline mode wherein individuals can work even with intermittent connections. With this approach, updates to the data occur when the connection is restored. (The updates occur via a mechanism that is transparent from a user's point of view.)
- **Network standards.** A number of more effective options in cellular networks offer a better alternative to the 802.11 (Wi-Fi) network standard. These cellular options are the Evolution-Data Optimized (EV-DO), Wideband-Code Division Multiple Access (W-CDMA), and Enhanced Data Rates for Global Evolution (EDGE) technologies. Because Wi-Fi access depends on location and there are issues of signal strength, cost, performance, and security surrounding the Wi-Fi standard, companies must consider the alternatives in mobile broadband as options that are more reliable. These standards are also easier to integrate into business operations in many instances.

Conclusion

Much like the personal computer in the 1980s, mobile devices are finding their way into corporate enterprises virally through organic growth because of the convenience and functionality they offer. Like PCs, mobile devices are a premier example of consumer adoption of technology being a prelude to institutional adoption. Adoption of mobile and wireless technologies in the insurance industry is no different. In fact, casual adoption of mobile devices already in play in insurers' enterprises should raise security and privacy concerns as well as cost-of-ownership issues (that today may be invisible) that reflect negatively on costs of operation.

Thus, the key question is not, should an insurance company employ mobile technology and solutions, but where in the organization can mobility be most effective? It is critical that insurers determine how widely mobile solutions should be deployed in the enterprise, what platforms and applications best align to the company's business operations and strategies, and how soon the company should invest in broad deployment. For example, in an attempt to drive new efficiencies in claims processing, many insurers are investing in real-time enterprise (RTE) technologies. But how can an insurer achieve the benefits of RTE if its business is in *non*-real-time mode between its central operations and its field-based business constituencies and customers because the organization lacks a mobile information framework?

The choice for insurers is absolute: Exploit the rise in mobile and wireless technology capability that aligns with business objectives. Deploy mobile software applications and devices to advance business velocity internally and with agents and customers. Use it to increase efficiencies in areas like claims processing and to facilitate rapid and meaningful disaster relief responses.

The implications of adoption of mobile technology for the insurance business vary, based on the business perspective and model. Some companies have more demand for mobility and handheld devices because they employ a great many field personnel, whereas others have less demand because the insurer contracts with other providers, outsourcing claims adjustment, for example. No matter what direction an insurance company chooses, it is increasingly important for executives and line-of-business (LOB) managers to understand in detail the emerging trends in device usage and to work closely with their IT departments to introduce innovation in the company's various work groups. This active participation is very important so that both corporate executives and LOB managers can understand clearly how the trends in

mobility will affect their firm's business operations and competitive standing. Whereas corporate executives are responsible for institutional strategy and competitive standing, LOB managers will drive more business-localized initiatives. The only difference in their decisions is likely to be one of scale and not one of choice.

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Research in Motion Limited commissioned TowerGroup to conduct independent research and analysis to assess the use of handheld mobility in the insurance industry. The content of this report is the product of TowerGroup and is based on independent, unbiased research not tied to any vendor product or solution. Although every effort has been made to verify the accuracy of this information, neither TowerGroup nor the sponsor of this report can accept any responsibility or liability for reliance by any person on this research or any of the information, opinions, or conclusions set out in the report.