Mobile Business Intelligence: When Mobility Matters

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Prepared for MicroStrategy

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Introduction

No matter what business you are in, you are in the business of information. And it's business intelligence that has long been the discipline to deliver the needed information. Demand for business intelligence as a means to get maximum value from information has never been higher as businesses increasingly compete in real time and require information that is integrated from across the enterprise. The old saw about business intelligence is that it gets "the right information to the right people at the right time." It's really time to add "right medium" to that mix.

Automating business decisions and action is one path to business intelligence maturity. Determining what actions to trigger automatically based on changes in corporate data can come from a solid understanding of how decisions are made today. However, many decisions are multifaceted, and a knowledge worker's analysis will continue to be a part of effective business intelligence.

Effective analysis is getting more complicated for knowledge workers. The more complicated aspects include sensing what is happening and combining that with summarized historical data to build a set of possible actions. These "analytics" are the basis of competitive advantage for organizations today. Once calculated, they must be put to effective use, again utilizing the best medium available for real-time delivery.

Like water, information and analytics must flow through the path of least resistance, utilizing the deployment option that turns the information into valuable business action most quickly.

Business Intelligence Deployment Option History

The accepted paradigm of effective business intelligence must change. Once it was exclusively reports built by IT from overnight-batch-loaded data warehouses, which replicated a single or small set of source systems. Those reports were deployed to the personal computers of "users" in what seems like, in hindsight, a very heavy-handed and resource-intensive process.

Just getting a report to a user's personal computer on a regular basis is nowhere near the pinnacle of business intelligence achievement. Shops with this mentality are leaving tremendous value on the table.

Now, the considered norm for business intelligence involves "zero footprint" web-based delivery of reports. This improvement allows information to reach many more users. However, increasingly it has been noted that while the detailed, transactional data is absolutely necessary to be accessible on a drill-through basis, it is the rapid availability of summary level information that activates the process.

A majority of users have become more accustomed to a targeted presentation layer. Dashboards represent an advanced form of information delivery, second only to operational business intelligence as a mature approach to disseminating information. Acting on dashboards that already have a certain amount of knowledge worker intelligence built in moves the organization to real-time competitiveness.

> **The emergence of corporate dashboards has set up organizations for mobility.**

When you add mobile to the picture, notifications take on a whole new utility. Notifications can be sent to mobile devices when the dashboard data changes, or changes in a way that is meaningful to the knowledge worker. Mobile applications provide useful notifications on the devices, and email does not have to be a part of the process.

Notifications, combined with the ability to immediately access the information wherever the knowledge worker is, provide many advantages over a dashboard, which requires web browser technologies.

Business Mobility

If the past several years have seen a sea change in culture, it is clearly in the use of mobile devices. What was once a phone has become a favorite medium for email, web, music, podcasts, photos, weather, dining and travel as well. This has all happened in a short period of time, yet undoubtedly the mobility this trend offers will only increase its uptake.

> **Mobile phones and tablet computers are business devices.**

As the case studies below attest, mobile devices and tablet computers are indeed business tools. The personal mobility that they offer is viewed every bit as necessary in business. Achieving real-time business mobility is a factor in making information flow like water through a path of least resistance. It will require little "hunting and gathering" on the part of the information consumer

MicroStrategy
MOBILE INTELLIGENCE

> **Mobile devices enable the real-time potential of business intelligence.**

> **IBM Survey Touts Potential of Mobile Apps**

According to an October 2010 survey from International Business Machines Corp.,[1] more than half of the 2,000 IT professionals in 87 countries surveyed believe that within the next 5 years, more developers will be working on mobile- and cloud-based applications than traditional computing platforms for the enterprise.

by delivering the user summarized information, supported by detail. This information will flow from business intelligence, the most elegant discipline that provides information today.

The biggest business factor driving the need for change is the real-time nature of new business needs. Information cannot be out of date. Out-of-stock conditions, customer complaints, fraud, and so on are not most optimally solved with reporting. Fortunes can be gained and lost by suboptimal business decision timing. Many early data warehouses were built with a personal computer usage layer, which creates a distinct challenge to the optimal timing of decisions.

The necessary timing of much intelligence gathering is during the immediate occurrence of a trigger event. Business is becoming an "Apple Lifestyle" world where the players are always plugged in. Business decision-making capabilities likewise need immediacy.

Business units—and the systems they utilize for real-time decision making—need high quality, well-performing, and corporately arbitrated information in real time. Furthermore, for competitive parity, it is imperative for the information management function to not only respond to business needs, but also to put possibilities on the table in real time that the business is unaccustomed to and ensure that they are exposed.

Real-time information delivered to an abandoned desktop, or to the web—with or without notice—that inherently involves multiple steps for the user to derive value does not capitalize on available, real-time information. The answer is mobile business intelligence, or utilizing the mobile device as the data access layer.

Mobile Business Intelligence Deployed

Mobile business intelligence is a process, not a project, and a journey rather than a destination. The case studies below represent two forms that mobile business intelligence can take to empower the mobile worker and port existing applications.

This paper will now discuss two different companies, their environments, reasons for going mobile, and key success factors. The examples provide a framework of information architecture evaluation reference points, lay out options for mobile business intelligence, and provide best practices for those considering, planning, or doing some form of mobile business intelligence evaluation.

GUESS? Store Managers Don't Have to Second Guess Data

GUESS?, Inc. (GUESS?) is a worldwide leader in fashion. With over 400 stores and rapid expansion internationally, they saw a need for an information infrastructure and access improvement. They changed database platforms for their global data warehouse and made a commitment to mobile business intelligence. That commitment has lasted two and a half years now, and user acceptance has proven mobile business intelligence to be a very smart commitment.
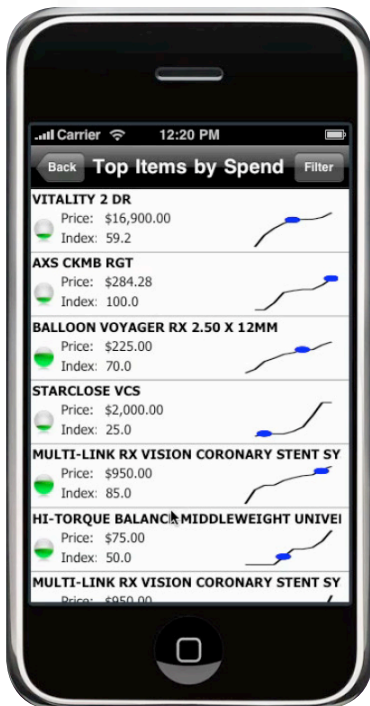
Bruce Yen, Director of Business Intelligence, says the most popular report is the Store Master. "GUESS? representatives can walk into a store fully prepared with all the store information they need." The most popular feature is simple information on the store manager. A product perspective is also available. Drill-through capabilities from summary information to detail allow the conversation and on-the-spot joint analysis to proceed with ease and with the empirical support necessary to be effective.

The GUESS? journey began by porting existing reports to the BlackBerry for users who travel. GUESS? already had built a dashboard culture and found the architecture changes necessary were mainly

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[1] "IBM Survey: IT Professionals Predict Mobile and Cloud Technologies Will Dominate Enterprise Computing By 2015" http://www-03.ibm.com/press/us/en/pressrelease/32674.wss

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MOBILE INTELLIGENCE

> **Columbus Regional Hospital Uses PriceLYNX for Leverage**

In Indiana, Columbus Regional Hospital is a 225-bed facility providing emergency and many specialty services. Recovering from the 2008 flood forced the hospital to take a hard look at its expenses and that meant looking at the supply chain.

"We always knew we wanted to move cost containment down, but until VHA PriceLYNX, we never knew where the floor was," says David Lenart, Columbus Regional Hospital's director of facilities and materials management. They now know and have moved their cost containment from the 75th percentile to under the 50th percentile mark, thanks to PriceLYNX.

for proper rendering of the reports on the smaller screen. From there, they changed with the mobile profile of their users, which now predominantly means the iPad.

Their mandate now includes "everything to mobile." Fully half of the current data access portfolio is available solely on the mobile platform. Given the criticality of the real estate in this medium, GUESS? uses graphic designers to combat IT's tendency to "put too much on the screen and not keep it simple enough," said Yen.

In terms of information sharing, "How can you beat the tablet?" asks Yen. "With MicroStrategy Mobile, we can link reports to create a cohesive global information environment. We've aligned our mobile strategy with MicroStrategy."

Top Keys to Success for GUESS?

1. Get the data quality correct first
2. Use a graphic designer
3. Don't overload the user with information—make it intuitive, no one expects to read documentation for mobile applications

PriceLYNX: Going Mobile to Curb Supply Spend

Novation is the contracting arm of VHA and supports more than 1,300 hospitals. In an effort to support its hospitals in evaluating their vendors' offers for supplies, Novation came up with the idea to extend that analysis to not only include deals to the hospital, but also to incorporate deals that other hospitals were receiving. PriceLYNX was born. PriceLYNX expanded the analysis base to the deals from many more hospitals contributing their data. By looking at every supply for every hospital, hospitals gain access to a much wider base from which to evaluate their own deals.

Guillermo Ramas, VP, Strategy and Product Development Information & Data Services for Novation, says PriceLYNX presents hospitals with insight into "here's where your price is comparatively" with other hospitals.

Prior to PriceLYNX, the staff of the Director of Contracting at hospitals brought data to meetings for manual review. The ensuing data reconciliation effort often left little time for actual analysis, a manual process that was hardly real time. The goal of PriceLYNX is simple—to save money for the hospital on its supplies. With the comparative insight of PriceLYNX, the average hospital now saves $4M in their first year of use!

PriceLYNX was initially built on a web platform. However, the usability and client value took off when it was refashioned for the iPhone and then, most recently, for the iPad. As a matter of fact, Novation built the application to be live "one day after MicroStrategy's General Availability of MicroStrategy Mobile."

"Hospitals deploy few laptops. It's their culture. But they are embracing mobile technologies due to their ease of use and portability," according to Ramas. "In the future, we clearly envision hospitals dropping laptops entirely."

Top Keys to Success for PriceLYNX

1. Agile development—show the users something they can react to
2. LEAD, don't wait to catch up; the time for mobile is now

3. MicroStrategy Mobile—don't custom-code your mobile business intelligence application when the tools exist to get there quickly

What These Stories Tell Us

These stories of business success using mobile tell us that each company must have a mobile strategy. The users will eventually demand it, and there's an opportunity now to get ahead of that demand. Indeed, many shops are rapidly evolving to contain their personal computer deployment and accelerate their mobile deployments. Mobile will soon be the preferred platform and first port for a broad base of applications.

There are also multiple paths to mobile. Adding it as a deployment option to an existing web-based application is one valid path. For applications yet to be developed, mobile could be the primary or sole port. However, the deployment is not in real time if the consumer is not accessing in real time. Mobile deployment gives the user community the highest chance of real-time access to intelligence.

Tips and Approaches to Mobile Business Intelligence

Those who made the shift from client-server to web-based applications remember the resulting turmoil. That does not extend to the mobile port, which is very similar to its web predecessor. A tremendous amount of value can be attained with relatively little effort using mobile business intelligence. There is little, if any, function loss in the process.

While content creation is limited, information consumers will reap the tremendous benefit of having critical real-time information on their "lifeblood" mobile system.

> There is little to no consumer function loss in going mobile.

Whether porting existing business intelligence to mobile or selecting new applications to deploy on mobile, there are some success tips to follow. Most information architects will want to have some consciousness of the platform.

One of the main benefits of the mobile platform is usability. To ensure usability, it is important to design for intuition. It will be important in mobile to design for drill-down analysis to detail and avoid putting too much detail on any one screen. For most, this will mean it is preferred to leave more information out of each wireframe than to add more information. Users then will be able to self-serve their way to the information they need, without manuals or skill-building.

As the case studies illustrated, a little goes a long way in mobile value. A path forward is to:

- Prioritize the requirements
- Focus on the highest priorities
- Surround those priorities with other information

> Highly iterative approaches are proving best to develop mobile business intelligence.

In terms of methodology, agile, highly iterative approaches with the users are proving best to develop mobile business intelligence. Advise the users that the first drop is not the final, get the development in front of the users as soon as possible, incorporate feedback, and repeat until user requirements are met and users are empowered with new capabilities to deliver on business goals.

MicroStrategy Mobile

MicroStrategy has a long history with mobile, dating back to the early 1990s and their work with SMS and pager delivery.[2] As a long-time visionary organization for business intelligence, Micro-Strategy has continued their commitment, facilitating not just the development and design of

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[2] Now called "Distribution Services"

business intelligence, but also the medium for information. By making the mobile platform accessible, and showing an early commitment to do so, MicroStrategy continues to remove the largest bottle-necks to corporate productivity.

MicroStrategy Mobile is enabled for the iPhone, iPad, and BlackBerry. It's a codeless way to port existing or develop new reports and applications or new for the preferred mobile platform. The mobile platform is already empowering hospital customers of Novation, GUESS?, and hundreds of other organizations. With the first 25 users at no cost, this may be the perfect time to satisfy the user demand for mobile and expand business opportunities through information by adding mobility to business intelligence.

About the Author

William is President of McKnight Consulting Group. His practice focuses on delivering business value and solving business problems utilizing proven, streamlined approaches in data warehousing, master data management and business intelligence, all with a focus on data quality and scalable architectures. William has more than 20 years of information management experience, nearly half of which was gained in IT leadership positions, dealing firsthand with the challenging issues his clients now face. William may be contacted at william@williammcknight.com or by phone at (214) 514-1444.