



# Taking CRM to the Next Level

A Research Report

from

**Beagle Research Group, LLC**

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# CRM WizKids 2007

TAKING CRM TO THE NEXT LEVEL

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I N S I G H T + A D V I C E + R E S U L T S

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# What's a WizKid™?

**B**efore there were nerds or geeks there were whiz kids. Dictionary.com says a whiz kid is, "A young person who is exceptionally intelligent, innovatively clever, or precociously successful." It also references an "Alteration of quiz kid, a panelist on an early game show."

However the term comes down to us it is suffused with meanings of intelligence and innovation but curiously, and thankfully, lacking the pejorative connotation of being socially inept that seems hopelessly appended to "geek" and "nerd". Those terms seem to imply that the gods decided if you wanted to be good at math, science or computers that you would automatically be outfitted with clay feet.

But not whiz kids.

Whiz kids are cool. They drive the expensive German cars on California's Route 101 between San Jose and San Francisco or on Boston's Route 128 or a hundred roads in between that are choked each day with smart people in a hurry to invent the future.

Whiz kids or, for our purposes, "WizKids™", popped up in a synonym search for words like "genius" which we were using to find a way to describe just the sort of "intelligent and innovatively clever" people who cross the boundaries of knowledge into the unknown for fun and profit. We thought there just *had* to be a bunch of them out there building companies that are taking a fresh look at customer relationship management.

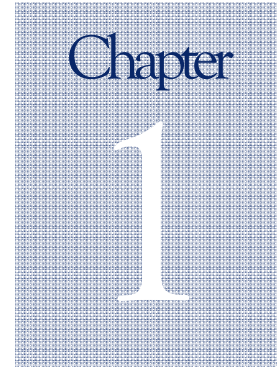
We were right.

We found a lot of them. They're tinkering at the edges of CRM right now doing things that, for the most part, have not been done before. And we know these people and their companies by the company they keep—large enterprises that qualify as early adopters who are using these novelties to gain competitive advantage.

Genius really does use its own specially calibrated metronome and we do our best to capture the beat of this generation of innovators. We are always on the lookout for WizKids and we find them at all times and publish them whenever we can.

Annually we collect the very best into a report. In these pages and on our Web site ([www.BeagleResearch.com](http://www.BeagleResearch.com)) you will find short and long descriptions of how WizKids and their customers take on new business challenges with fresh approaches and innovative new technologies.

# Introduction



**T**his marks the third year that Beagle Research Group, LLC has conducted the WizKids program in which we publish this report and make an award of the same name to emerging front office software companies. In this brief span we have identified some changes that tell a lot about the state of the software industry in general and the front office market in particular. This year is no different—change continues to be our theme.

For example, over the last several years, the number of on-demand companies has surged and the number of new software companies with a traditional orientation has virtually dried up. Nevertheless, the market is robust and the number of companies with innovative ideas is truly inspiring. We never have a shortage of companies to evaluate for this award and as in years passed, the variety of solutions that came before us was impressive.

It is not simply the style of application delivery that is changing but what the applications actually do. Where we once saw almost exclusively that the emerging solutions were systems capable of standing alone, we are now seeing a significant number of products that add to core system functionality rather than representing whole systems themselves. For example, this report contains integration, compensation management, and content management solutions, all of which are important but each is enhanced by and enhances other applications. To a greater or lesser degree these WizKids not only play well in the sandbox, but many actually require the sandbox to provide part of the rationale for their existence.

This is not to say that these solutions are in some way diminished, just the opposite, in fact. Many of the solutions represented in this report exist to make their larger cousins work better and thus these solutions make other systems more valuable. Perhaps the best example here is the case study of PGP Corporation which uses an appliance from Cast Iron Systems to integrate Salesforce.com, RightNow, and NetSuite into a composite application to run PGP's business. Integration technologies are also being used to bring together on-demand applications with traditional legacy applications and in-house developed systems and we think this will be a larger theme in years to come.

And speaking of on-demand vendors, our third observation is that Software-as-a-Service (SaaS) continues to blaze a trail toward becoming the new enterprise application paradigm. We honor salesforce.com again this year, this time for its pioneering efforts in the application platform space. Salesforce, Apex, and AppExchange, form the back story for several of

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the case studies in this report. Some of the solutions in this report are found in the AppExchange and at least one customer credits the AppExchange for helping locate a solution. Furthermore, many of the case studies presented here are really stories about the primary application fused with Salesforce's SFA product to deliver a composite solution.

There are also examples of more traditional systems such as the field service solution from Sapias. But even here Sapias is an on-demand solution that incorporates GPS and mobile technology to deliver a field service solution that brings a new level of efficiency to delivering service.

A few years ago, in *The New Garage*, we wrote that the future model of the software market would include platform vendors acting as requirements consolidators and sales and marketing engines for other software companies that use platform technologies to develop and deliver solutions to the market. We also said that some new applications would be classified as "WebNecessary" meaning that part of the value delivered would come from the fact that these applications exist primarily on the Web instead of behind some firewall and that they would leverage that existence as part of their value proposition. This report represents the forecast in reality.

The convergence of these trends is leading to a more robust software industry with more companies dedicated to delivering solutions that reach deeper into the enterprise, often replacing make-do applications based on spreadsheets or PC databases that do not integrate well with other business processes and require a great deal of manual effort to keep going.

At the same time, many emerging companies are finding that their capital requirements are diminishing to the point that many are foregoing venture capital preferring to control their own destinies without outside assistance. For example, in the last year one company, Kieden, launched its effort to provide an AdWord marketing solution. The company built its solution on the salesforce.com platform, Apex and distributed it on the AppExchange. Ultimately, Kieden sold itself to salesforce.com and all of this was accomplished without venture capital and through on-demand tools.

Salesforce.com has amplified this model in opening its incubator facility in San Mateo, CA where for a modest one year fee, innovators can get office space, access to computing facilities and development tools, and assistance with business planning, marketing, and other services that start-up companies always need but find in short supply. We expect this development to spawn new companies better and faster than the trial and error approach of the free market and some of the results may turn up in these pages in future years.

The front office market has been the breeding ground for numerous innovations in enterprise software and we expect that trend to continue if only because the front office is, by definition, the part of the organization closest to the customer. Back office applications can change relatively slowly because they manage internal business processes that are a company's bread and butter and an element of stability is a good thing there. But the front office must be attuned to changing with the customer and as trends emerge companies must have the flexibility to follow.

Today while back office systems continue to be tweaked to support the latest changes in the tax code or manufacturing systems are enhanced to shave costs, front office applications are still emerging that support processes that may not have been thought of just a few years ago. This rapid change drives the need for innovation in the front office and makes it such an interesting place to work. It is in part what attracts so many exceptionally intelligent,

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innovatively clever, or precociously successful people to build solutions and companies there.

# Cast Iron Systems and PGP Corporation

## Citation

Integration has always been an important issue for the IT department and its customers but with the rapid evolution of on-demand technologies and the accelerating pace of business in many small companies, it has taken on added importance. Moreover, the availability of low cost on-demand business applications has added more pressure to vendors and their customers to deliver solutions fast. With on-demand functionality capable of being delivered in a few days or weeks, any tolerance for long, resource intensive integration projects has evaporated.

Cast Iron Systems' novel approach to predefining integration for popular applications and delivering it in an appliance has revolutionized the way that many companies consider integration. It may also be leading the way as a new business model—delivering integration through subscription pricing rather than on a traditional up-front basis. The Cast Iron approach provides for some almost unbelievable integration results and is the reason for this 2007 WizKids award to Cast Iron systems.

## Business problem

PGP Corporation, a global security software company, is the leader in email and data encryption. The company's products are in use at 95 percent of the 2006 Fortune 100 companies, 87 percent of Germany's DAX index companies, and more than 80,000 enterprises, businesses, and governments worldwide.

As a rapidly growing company, PGP Corporation is comfortable procuring its software solutions as services rather than through traditional licensing. The company is so comfortable with this approach and the benefits of lower cost and faster implementation that it had no problem engaging with three of the most popular on-demand solutions to support its business—RightNow, Salesforce.com, and NetSuite.

PGP Corporation also has several in-house developed systems including order management, software distribution and a licensing engine and, finally, the company receives order data from EDI and XML feeds as well. At the end of 2005, the company was forecasting strong demand in 2006 and along with that demand there were significant internal requirements for integrating the company's disparate front and back office applications.

PGP Corporation was also totally committed to Java, as David Burnett, Director of Informatics put it, "Java was our hammer and everything else looked like a nail."

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Nevertheless, all of the analyses Burnett and his staff performed pointed to the fact that their 2006 integration needs would be greater than they could meet using Java technology. "Our staff realized we weren't going to get there fast enough," Burnett said.

The integration requirements were substantial because the company had taken a best-of-breed approach in selecting its on-demand suppliers which included Salesforce.com for sales and marketing, RightNow Technologies for service and support, NetSuite for financials, to complement its in-house developed systems for order management and software distribution.

### **Solution**

PGP Corporation had an aggressive time frame of only six weeks to revamp its customer support system. The first two weeks were spent with another vendor on a project basis but at the end of those two weeks, little had been accomplished, the applications were not even connected yet.

The slow pace and looming deadline made the company realize the need for an appliance approach like Cast Iron. Burnett found Cast Iron Systems by chance while reading an article about business models that described Cast Iron's approach of delivering an appliance—a rack-mounted device already configured for integrating target applications like the ones his company used.

The Cast Iron Integration Appliance brings several innovations to application integration:

- It is self-contained which reduces the complexity of application integration.
- There is no coding involved, just configuration, which enables faster implementation.
- Also, there is no re-coding, just reconfiguration for easy change management.
- There is one console to monitor and manage the health of everything—from hardware to the integration project.

Burnett contacted Cast Iron which sent a sales engineer and an appliance to PGP Corporation for a demonstration. Over the course of only four hours the engineer worked with a staff member to connect the PGP order management system with its RightNow customer support system.

Cast Iron frequently builds live proof of concept integrations from scratch during first meetings with clients and that was the approach used with PGP Corporation.

### **Implementation**

The Cast Iron demonstration turned into a proof of concept and Cast Iron had data moving from the order management system into the customer support system within one day.

Convinced that this was the right solution, the company then started the procurement process but requested Cast Iron to leave the appliance so they could continue work on their project. As a result, its first integration using the Cast Iron Integration Appliance was almost complete before they even procured an appliance.

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PGP Corporation spent the next two weeks customizing multiple integration points. In the final two weeks, it was able to test the complete process four times compared to just a half run which had been planned with the other approach. Perhaps the most amazing part of the story is that the person responsible for the first integration was not even a traditional programmer but a business analyst. According to Burnett, "He understood the business rules, knew SQL, read the manual, and deployed the first project on his own." Similar results have been found when integrating Salesforce.com with their order management system and the company will go live with its integration of order management and sales data with NetSuite financials in Q1 of 2007.

### Results

PGP Corporation saw several immediate benefits from Cast Iron's solution. In addition to bringing together the company's best-of-breed on-demand solutions, the easy-to-use design, deployment, and monitoring capability made testing easy and allowed the company to do extensive testing before going live. The emphasis on testing, as well as the speed with which changes can be configured, enables a very smooth transition from old systems. The process is non-disruptive and changes were made in a matter of hours instead of weeks.

Cast Iron is now used for other PGP integration projects, "I have a list of projects a mile long," Burnett says. "Every time we turn around we're using Cast Iron in different ways."

Burnett says that 150 in-house employees are involved in business processes that use systems supported by Cast Iron integration. More than that, thousands of customers access business processes supported by the integrated systems daily. Some of the projects lined up for 2007, include:

- Creating a customer information service hub to provide customers with self-service access to their information.
- Providing access to the company's proprietary licensing engine to automate requesting new licenses.
- Tying all order management and sales data to NetSuite financials (Q1).
- Tracking customer binary downloads and creating alerts to notify customers about expiring licenses or product availability.

In looking at the many promises of on-demand software solutions and the reality he has experienced Burnett has high praise for the solutions he has chosen, "It's such a wonderful success story," he said. "It all turned out to be true."

### Conclusions

There are numerous ways to make two disparate applications talk to each other, starting with batch data uploads and continuing through enterprise application integration (EAI), building composite applications, hard coding, and appliances like Cast Iron. Each approach has its place based on needs, costs, and time available. The appliance approach is a new wrinkle that delivers fully operational integration that easily fits into many organizations' environments. The appliances themselves are industry standard blade servers running Linux which should pose no challenge to today's IT shops.

## Centive and Psion Teklogix

### Citation

Incentive compensation is frequently overlooked in the long lead-to-cash business process or it is viewed simply as a detail that companies deal with behind the scenes; nonetheless, incentive compensation is vitally important for several reasons. First, sales professionals agree that accurate and timely compensation is vital for the motivation and consistent performance of the sales staff. Of equal importance, though, is the overhead that accurate compensation accounting places on the back office staff.

For years, even companies that used sophisticated marketing and sales tools relied on simple spreadsheets to manage compensation accounting. Since spreadsheets have no databases, it is hard to track complicated compensation plan variables which can easily include products, territories, commission rates, accelerators, and more. Keeping all this straight and reporting on it—even with a spreadsheet—often requires a lot more human input than the process should take. The results have been inaccuracies—including under- and over-payment, long hours spent by the financial staffs trying to get it right, and ultimately, demotivation of the very people that incentive compensation is supposed to motivate.

Centive has replaced cumbersome spreadsheets with Compel, an on-demand incentive compensation management tool that improves timeliness and accuracy in calculating and delivering incentive compensation. More than providing a tool for the financial analyst, Compel also enables sales representatives and managers to track performance and actual commission earnings, as well as forecast earnings based on opportunities in the pipeline, thereby helping prioritize and close deals. Centive wins a 2007 WizKids award for retiring another spreadsheet based business process and replacing it with an effective business tool.

### Business problem

Psion Teklogix is a provider of rugged mobile computing systems, serving over 80 countries through a global network of direct sales and support offices, as well as regional business partners. In all, the company has over 100 commissionable sales people. The company is headquartered in Mississauga, Ontario, Canada with additional corporate offices located in Europe, the United States, Asia, Latin America and the Middle East.

According to Lillian Paratore, the senior financial analyst responsible for tracking and calculating commission payments at Psion Teklogix, before the conversion to Compel she would routinely have to manage up to twenty different compensation plans using the spreadsheets. Because spreadsheets lack the ability to filter data, Paratore had to use separate spread-

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sheets to administer individual plans for each and every commissionable employee, making this an inefficient, arduous and labor-intensive process.

By Paratore's account, the spreadsheet method of administering compensation plans took a long time, "It took me three weeks to calculate results and produce and distribute statements to the sales staff and to the accounting department for payment," she said. And after all that work, "Using spreadsheets to calculate compensation payments was only about 80% accurate."

A big challenge was ensuring that qualified sales representatives got upgraded to the next threshold and commission level. A manual process relying on flags and formulas made it easy to miss subtle changes from period to period. The process required pulling data from multiple spreadsheets and two separate third-party systems, validating data, manually calculating commissions, correcting errors and producing and distributing individual commission statements with revenue and attainment for every commissionable employee, attainment reports for the sales executives, and a payroll file for payroll.

Improved accuracy and faster turnaround were the two reasons the IT department first went looking for a replacement for the spreadsheets. A five-member decision-making committee found Centive on the Internet, downloaded a white paper, and attended a Webinar. The committee evaluated three vendors in all, then narrowed their choice and finally selected Compel from Centive.

### **Solution**

There were at least four reasons that Psion Teklogix selected Compel. First, Compel is an on-demand solution—no extra hardware or software had to be purchased to support the solution. Second was cost, as a solution delivered through the Internet, Psion could pay a small monthly fee to use the system, there was no large upfront license fee. Next, Compel provided the ability to create, modify and publish custom reports without reliance on IT. The accounting department could be self-sufficient with Compel. Finally, and most important, Compel enabled Psion to increase the accuracy of its commission reporting to 100% with considerably less labor from Paratore and others.

Compel is a valuable tool for both financial analysts and for sales representatives. For sales people, Compel helps to identify the highest value opportunities in a pipeline for a specific period of time. This information drives the close plan that will maximize commission potential for the sales representative and revenue potential to the company. This kind of modeling helps to ensure that sales people and sales management are working toward the same goals.

It took two months to deploy and test Compel and no outside third party was involved in the project. The process involved planning, configuration and testing. As an on-demand solution Compel is delivered so that business people can configure the system to meet their needs; this approach makes for faster deployments, very low IT involvement, and enables business people to modify the system as conditions require.

In the finance department, Paratore ran a parallel test by using Compel side by side with the existing spreadsheets. Paratore said, "We decided to keep up with both systems to ensure that the data was accurate. We wanted an apples to apples comparison." Paratore's test proved that the old system was only about 80% accurate while Compel provided the 100% accuracy the company had been looking for.

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### Results

Compel went live in the finance department in late 2006 after the parallel test. Along with 100% accuracy in commission calculations, commission statements now only take three days to prepare rather than the three weeks the company experienced using spreadsheets. Finally, the overall sales incentive process is now integrated, smooth, and efficient and it takes significantly less time to manage.

In its first stage of deployment, Psion began using Compel for its finance department and a later roll out to the sales people in the Americas region is planned for the first quarter of 2007. The company intends to roll out the solution to the rest of the world after that.

Aside from the obvious improvements in accuracy and reduction in time to calculate commissions, the company has not yet had the opportunity to calculate other benefits. It is a reasonable expectation that the modeling capability—when it is released to the sales people—will enable sales executives to make better decisions that guide representatives to close the most lucrative deals first. That approach should improve close rates and revenue generation but it remains to be evaluated and the company will pursue that approach.

### Conclusion

Commission calculation has become an important issue in many sales departments for a simple reason. When markets are new, vendors have a limited number of products to sell and consequently commission calculation is pretty simple. As markets mature, however, product proliferation leads to greater complexity as companies use different incentive tactics to motivate sales representatives to sell newer or advanced solutions. Inevitably, that complexity overwhelms the capabilities of spreadsheet based compensation systems and more formal solutions are required.

Today's marketplace is full of examples of companies that have evolved to need more sophisticated commission solutions and Psion Teklogix is a typical example of a company dealing with complexity. Beagle Research forecasts that compensation management as well as other sales effectiveness solutions will increasingly find good reception in the market as companies work to meet the challenges that market maturity brings.

## Echopass and Secure Alert

### Citation

**B**ringing together two or more on-demand applications has received the name “mash-up” from the on-demand community. Typically, a mash-up has been a combination of some kind of database application with a GPS based mapping system. The most common mash-up frequently involves satellite images from suppliers like Google Maps. As more vendors expose their applications as XML based widgets, the number of possible mash-ups grows almost exponentially.

Nevertheless, while visual representation of a delivery route map, for instance, may be interesting, the value generated by such a mash-up is small—after all, people have been traveling and locating their positions on the earth without the aid of satellites for thousands of years.

A next generation of mash-ups is on the horizon and already in use in some very selected areas, which gives an interesting glimpse of the future in which more powerful combinations provide more valuable services to companies and society at large.

Echopass Corporation, an on-demand call center service provider, teamed up with SecureAlert to produce a very valuable integration that combines the Echopass 24/7/365 call center service capabilities with SecureAlert’s monitoring center which uses GPS and cell phone tracking systems to produce a highly effective solution for tracking offenders on parole or probation. This solution does such a good job of integrating disparate technologies to produce a novel solution to a societal problem that it was a natural to win a 2007 WizKids award.

### Business problem

The numbers are staggering.

The Bureau of Justice Statistics reports that during the past 20 years, the U.S. prison population has skyrocketed by more than 300 percent. About one out of every thirty-two Americans is currently in the corrections system either through incarceration, parole, or probation. At the end of 2003, more than 4.8 million adult men and women were under federal, state or local probation or parole jurisdiction—approximately 4,074,000 on probation and 774,600 on parole.

With shrinking corrections budgets and an average cost of approximately \$65 per day to maintain an offender in prison, governments at all levels are being forced to put more of a burden on parole and probation officers rather than keeping offenders behind bars. That means keeping close watch on parolees and probationers through devices such as “ankle

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bracelets" that can report back to a central location on a person's whereabouts. But the data that these devices can generate is useless unless there is a system and a staff at the central location to monitor it around the clock.

SecureAlert is in the business of providing sophisticated monitoring devices that incorporate GPS location tracking, cellular communications, and computer technologies to track individuals on parole or probation. SecureAlert also operates several monitoring centers with its own operators trained to respond appropriately to emergency situations. The company needed a telephony solution that incorporated aspects of conventional call centers but that could also handle the additional demands of its 24-hour monitoring center. The company's rapidly growing business needed to provide real-time monitoring operations that, at last count, were deployed in approximately 125 municipalities, counties, and state agencies in 35 states, and growing to encompass all of the United States.

### Defining a solution

SecureAlert is an emerging company that has developed an impressive device that is part cell phone, part GPS device and part computer. Weighing about a pound and about the size of a PDA, the device holds specific information about locations that offenders must avoid or that they must be confined to.

For example, a sex offender might be required to stay 1,000 feet away from any school; a bank robber might be excluded from the vicinity of banks, or someone under house arrest is not allowed to leave an area. These "geo-zones" are programmed into the SecureAlert devices for each offender, and the devices then communicate their locations to the monitoring center. . In the event that an individual wanders into or out of a restricted geo-zone, the device sets off an alarm—regardless of whether it has contact with the monitoring center.

When a geo-zone is breached, the monitoring center contacts the individual through the cell phone capability of the device and all records and rules concerning the offender's probation are automatically brought to a computer screen at the monitoring center. Depending on the infraction, the monitoring center can contact the offender's supervisor, such as a parole officer, and bring the supervisor into the conversation as well.

SecureAlert needed a telephony solution that could integrate all of this technology into a single solution at its monitoring center.

Telephony can be notoriously expensive and inflexible. For example, a Deloitte and Touche study estimated a price tag of \$2.8 million for building a 15 position premise-based multi-media contact center with a call routing switch, IVR, CTI engine, fax, email and web chat servers, reporting database, contact management and knowledge systems. That estimate included the hardware, software, installation, integration, maintenance and internal resources to support the center for a three-year period. An on-demand solution could be much less expensive, but in either case the critical requirement would be providing continuous availability.

The company started by evaluating telephony vendors but as SecureAlert president Randy Olshen said, "After evaluating some vendors we got confused. We determined that we're experts at our technology and our service and we are not experts at all these other technologies. So we decided to search for a vendor who could supply the technology and maintain it at the level we needed so we can be the best at what we do."

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That meant searching for an on-demand provider, but Olshen knew he needed more than conventional call center capabilities to support SecureAlert's monitoring center. After looking at six on-demand providers, only Echopass offered a solution that made sense for this demanding application.

As Olshen pointed out, "We had some very, very specific requirements that most of the vendors are not capable of supplying and Echopass either had it or they were willing to step up to provide it." As he explained, "We're a 24/7 monitoring center, not a call center, we cannot ever go down. Offenders don't take holidays so we can't either. We needed a reliable source that could give us the confidence that we would never go down. Only Echopass had redundancies built into their systems to ensure this level of system reliability."

Over the course of two months, Echopass' professional services team worked closely with SecureAlert to develop and implement a plan for integrating the call center capabilities into SecureAlert's existing IT infrastructure and sophisticated circuit based mobile network — comprised of both GPS and cellular technology. Echopass' team of IT and telephony professionals provided everything from professional services and consulting on call center requirements to complete implementation and integration service.

### Implementation

The heart of the solution was integrating SecureAlert's two main products with the Echopass EchoSystem™ Service Integration Platform. The SecureAlert products that the system is built around include:

- TrackerPAL—an ankle device designed to enable authorities to continuously track and monitor the whereabouts of select individuals on parole or probation. TrackerPAL also includes access to a highly secure website that Echopass seamlessly integrated into SecureAlert's monitoring center, so officers can communicate immediately with subjects and modify and view restrictions anytime, anywhere via the Internet.
- MobilePAL—a device for emergency situations or concierge services that connects customers 24/7 to their own personal assistant such as a family member, roadside service provider, or physician with the push of a button.

Echopass successfully integrated SecureAlert's technological innovations with Echopass' call center framework to significantly increase SecureAlert's functionality and performance. By integrating TrackerPAL's highly secure website into SecureAlert's monitoring center, officers can immediately communicate with subjects, and modify and view restrictions anytime, anywhere via the Internet. And, the Echopass always-on guarantee ensures individuals are tracked and located in real time.

In addition to the outbound communications service, there is also an inbound communications option for offenders using TrackerPAL which enables those required to call in prior to a meeting, or report to an agent, to do so via the ankle device. Conversations are recorded, filed and stored appropriately in compliance with government regulations. All of this is seamlessly handled by Echopass.

### Results

SecureAlert's story is beyond ROI analysis; with benefits deeper, though not harder to judge. For example, in the 2006 election voters in California passed Proposition 83, also known as

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Jessica's Law, which requires high-risk sex offenders to wear GPS monitoring devices. But without a 24/7 monitoring center and real-time communication capability, the tracking is useless. That issue came into focus recently in Nassau County, New York, after an audit found that some high-risk sex offenders who wear global positioning tracking devices in Nassau were not being monitored 24 hours a day.

As a result of Echopass successfully integrating SecureAlert's technological innovations with Echopass' 24/7 call center service, SecureAlert has experienced a significant increase in functionality and performance. By the end of 2006, SecureAlert estimated it had more than 15,000 of their tracking and monitoring units deployed in the United States, and anticipates significant growth throughout 2007. This rapid growth strategy is in large part made possible by Echopass' highly scaleable platform design and on-demand delivery model.

But beyond SecureAlert's business benefits, the sociological implications of this technology are significant. With this integrated solution, law enforcement agencies can trust that offenders are not only being tracked 24/7, but that they can also be communicated with through the ankle device.

For example, if a high-risk sex offender on parole or probation enters a prohibited area such as a school zone, the ankle bracelet will alert the TrackerPAL monitoring center immediately. The SecureAlert agent in the company's monitoring center can then warn the individual on parole to leave the premises immediately. If the individual fails to respond, the police are notified and bridged into the conversation so that appropriate action can be taken immediately.

TrackerPAL's unique monitoring center and GPS technology combined with its implementation of Echopass' call center features and functionality enable SecureAlert to win contracts with state and local municipalities and the federal government almost every time it demos the product. Additionally, the fact that TrackerPAL records everything helps law enforcement agencies follow strict protocols.

### **Conclusion**

The combination of Echopass and SecureAlert represents a second-generation mash-up in which a significant new application emerges that delivers greater value than the simple graphical renderings we have become accustomed to. Global positioning and cellular technologies have almost miraculous capabilities to locate and communicate with individuals virtually anywhere on the planet. But without further integration into a larger infrastructure they sometimes lack practical application. Like a beautiful car with a powerful engine and no transmission we see their potential without accessing any real benefits. But in concert with conventional call center technology a powerful utilitarian solution emerges.

We should not lose sight of the fact that the potential for this integration has driven all on-demand call center providers to at least consider hardening their solutions to take on the rigors of 24/7 operation with SLA guarantees for their services. Ultimately, this study shows how the prodding of the marketplace has worked to cause solutions to emerge where there were only components before.

## Market2Lead and Infoblox

### Citation

One of the perennial complaints about marketing has been that the leads generated by marketing programs often fall short of sales people's real needs. As competition and other market forces have challenged marketers to deliver better information about prospective customers, technology vendors have responded with a variety of tools that help in one or more areas of the marketing process. There is now general agreement that success in marketing requires an approach that involves cumulative interactions in a process that nurtures interest and matures leads—or weeds them out of consideration—based on customer behavior.

Market2Lead receives this 2007 WizKids award for bringing together technology and process that almost any company can use to evolve customer interest into demand thus providing sales with the actionable leads it needs. Market2Lead's approach combines data collection from various sources such as email campaigns, Web search, and email with analytics to support multi-step marketing that delivers the mature leads that marketers and sales people need.

### Business problem

Infoblox had an interesting problem that is becoming more common in marketing circles—they had too much technology and too little time. More precisely, they had technology for most phases of marketing but the solutions were islands of information. Too much of the marketing team's time was taken up with massaging data and moving it from one system to another to accomplish the next steps in a campaign.

As a result, the manual handoffs between disparate systems for capturing, manipulating and accessing data turned what should have been a simple process into a time and resource drain. According to Greg Lanier, director of marketing at Infoblox, there was a system for capturing customer data but a different system was used for managing lists, and still another for email generation. The small staff was only able to generate between one and two marketing programs per person, per week and when a prospect returned to get more information the likelihood that any system could flag that event and treat the customer appropriately was nonexistent.

Infoblox invented network identity appliances which combine the power of appliance-based, nonstop local service delivery with the benefits of advanced distributed database technology to provide consolidated management with unparalleled visibility, control and availability.

The company was founded in 2003 and is private so its financials are not available, but it does confirm that revenues have doubled in each of the last three years. To keep up with

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that growth rate, sales people needed a constant stream of actionable leads so finding ways to reliably generate the quantity and quality of leads the sales team needed was a critical need.

As the company grew it became apparent that a better marketing method needed to be found to replace its fragmented, multi-system marketing approach. Specifically the company found it needed to do a better job in the following areas:

1. Reduce the number of manual data manipulations required to run campaigns.
2. Introduce a better way to deliver more actionable leads to the sales force which was abandoning many leads that representatives felt were inappropriate.
3. Alert sales people when customers interacted with the company by responding to marketing programs or simply initiating contact.
4. Improve the process for routing leads to the appropriate sales representative in the right geography.
5. Develop a standardized way to collect customer information from multiple sources on the Web.
6. Find a lower effort way to eliminate duplicate leads before publishing them to Salesforce.com.

### **Dynamic profiling**

Market2Lead takes a specialized approach to helping companies increase demand generation that combines data capture and analysis of customer behavior with traditional marketing which the company calls dynamic profiling. For example, rather than simply tracking customer activity on a Web site from which marketers infer customer attitudes and receptivity to marketing messages, Market2Lead enables marketers to ask direct questions.

The process is a simple exchange. A customer might provide some basic information in exchange for downloading a brochure or a white paper. In subsequent encounters, the information is redisplayed and additional data is requested and gradually, a customer profile is developed. When a customer has entered a significant amount of information a sales call can be arranged as a natural consequence of data gathering and the customer's exhibited buying behavior. The process is dynamic because it changes based on the input the customer has already supplied and where the customer is in the buying process.

The information requested becomes more specific as the vendor and customer engage and the customer's comfort level and understanding of a company's solutions increases. Of course, many prospective customers do not return after one or two encounters, which can be anything from visiting as a result of a search, an email campaign, or attendance at a Webinar. But the customers who do return self-qualify and become more valuable with each encounter.

There will be times when a prospect requests a meeting with a sales representative right away and for those situations, the system can direct a hot lead directly to sales. More often though, a customer needs to gain familiarity and understanding of a company and its products and services and in those situations lead maturation is essential.

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When the prospective customer returns to get more information or to register for an event such as a Webinar, the system will ask for more information by presenting another form, partially filled out with information captured on the last encounter.

At each encounter the value of the information exchanged on both sides increases. For example, an early encounter might capture simple demographics in exchange for standard product information. More detailed information about customer needs and requirements might change hands with a white paper; and project timing and budget might be provided in exchange for a Webinar. The exact exchange is completely up to the vendor; the point here is that an exchange of equal value is set up.

### Working together

Lanier discovered Market2Lead at a trade show and decided that the company's approach to marketing matched what he was looking for. Although Market2Lead had many good ideas the product was still in pre-release so Lanier began working with Market2Lead to define the functions he needed and thus became one of the company's earliest customers. Over a course of several months the two parties exchanged ideas and honed the solution into something that Lanier could deploy to his team.

One of the big attractions of Market2Lead was the fact that the solution is delivered in an on-demand format along with Salesforce.com. Since Infoblox was already a Salesforce user, the fact that the two products were integrated through the AppExchange was a real bonus. The integration assured Infoblox that the data collected in the marketing system would be easily reflected as leads in the SFA system. More importantly, it is easy to check on lead status to understand if leads are being efficiently processed.

The results of the integrated deployment were significant. The dynamic forms enabled Infoblox to capture more customer information and place it in a system that integrated multiple parts of the marketing and sales continuum and greatly reduced the problem of several systems that didn't work well together.

Lanier soon determined the system was ready for full deployment. After a short six week effort to build forms and program elements Lanier and his team took the solution live.

### Results

Lanier got multiple sustained results from the deployment

- Lead follow up. "One of our big frustrations was that many leads were not followed-up and there were a huge amount of leads seemingly unused," says Lanier. "With our old approach, we weren't able to bring leads into the system with clear geographic information for routing and sometimes no clear information for follow up. A lead was just a name in the system," he said. "Now with better data capture and analysis Infoblox is able to capture the information it needs to define a lead and to get it to the right person for follow up. "As a result," says Lanier, "We've reduced our lead abandonment rate by 50%. We have more leads and they are better quality."
- Effective alerting. The system now pushes email to the field when program criteria are met. "When a customer contacts us or responds to a program, the relevant information goes out to the sales representative right away," Lanier said.

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- Company revenues have doubled year over year for three years for many reasons and though it is hard to say what portion of the improvement is attributable to better marketing, Lanier offers this comment: "It's always hard to tease out what a system like this does for overall revenue performance but we are a more efficient marketing organization as a result."
- Without hiring additional staff, the marketing organization is able to do much more than before. Prior to implementing Market2Lead, the staff was able to generate between one and two programs per person per week, today that range has improved to between three and five programs per person per week.
- Regional programs. Perhaps most importantly the marketing team is now able to better focus its efforts to do more regional, targeted, vertical or topical programs. "We never want to make blanket email blasts and because we have better information about customers we can narrow our focus."

### Future developments

"We're always thinking about ways to make our marketing better," says Lanier. To do that Lanier plans to take greater advantage of the information collected by the system. The next steps include what Lanier calls conditional marketing. He plans to set up chains of marketing programs that follow each other based on customer behaviors. For example, customers who respond to a white paper offer might be invited to a webinar on the same subject.

Also, using cookies, Lanier plans to recognize customers who return to a Web page and to use the accumulated knowledge in the system to involve the customer in a deeper conversation.

As Lanier sums it up, "Market2Lead has provided us with new ways to think about marketing." The next steps simply involve putting those ideas to use.

### Conclusion

Infoblox's experience demonstrates the significant opportunity and need that many companies have to find better ways to engage their customers and prospects. Traditional marketing conducted with one way email blasts reached its productive limits some time ago but vendors have been slow to provide alternatives. Market2Lead has developed credible technologies to address conventional marketing shortcomings and it appears the company is moving in the direction of formalizing a marketing method that is just as viable and important as a sales methodology. Such a development would be in keeping with CRM 2.0 thinking and will further enhance the customer experience.

## Pragmatech and Kforce

### Citation

**S**ales and marketing teams have always been challenged to maintain message discipline. With discipline comes brand building but maintaining that discipline is hard to do especially in the face of increasing market demands for uniqueness. For example, a brochure that addresses the concerns of the CEO may not meet those of the CFO.

Front line sales representatives often find that their marketing departments had not foreseen all of the contingencies they face, and as a result they frequently build their own custom content—presentations, brochures, proposals—whatever it takes to get the job done. Sooner or later, though, vendors coalesce around their products and brands and it becomes necessary for sales and marketing to bring a consistent message to market. But old habits die hard and one of the continuing challenges in successful enterprises is managing redundant—and sometimes inaccurate—information and the people who make it.

Using a repository based approach, Pragmatech has designed a sales knowledge management system that manages reusable content modules that can be easily configured for most forms of corporate content development. The result for customers who use its products has been better control over messages and much faster creation time for proposals, brochures, presentations, statements of work—all the typical correspondence between vendor and customer in the sales cycle. An important added benefit comes from enabling new sales people to use corporate information like veterans thus reducing their time to productivity. For all that Pragmatech receives a 2007 WizKids Award.

### Customer and business problem

Kforce (Nasdaq: KFRC) is a big company.

It specializes in providing temporary and permanent staffing for its customers and in providing career management for people seeking jobs in a variety of industries. This forty-five year old company has grown by acquisition: in the last 25 years the company has acquired more than twenty other companies.

There are more than 1700 core employees of whom more than 900 have some role in selling. According to Connie Sanford, proposal services manager at Kforce, “In any given week we have 11,000 consultants on assignment in addition to our permanent placements.”

The company’s continuous acquisitions had left it with numerous cultural islands each of which maintained its own messaging. Often that messaging was to one degree or another at

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variance with the corporate direction. According to Sanford, "We didn't have any standard content; we didn't even have a single version of the company history so we had a lot to do."

Part of the problem was that there was no centralized way to approve and manage corporate information. As sales people needed documents like proposals and brochures, each person took on the responsibility for their development. As a result, veteran sales people had significant accumulations of documents that had once been successful and they relied on these documents as starting materials whenever they needed a new one.

There were two problems with that approach. First, the veterans were constantly relying on old information and there were significant inconsistencies between divisions—one division might deliver very different information about the corporate background than another division because each was the product of a different acquisition. Second, and of even greater concern was the fact that new sales people lacked the backlog of documents that veterans had at their disposal so it often would take a new representative a week to write a proposal that a veteran could write in a day or less which clearly reduced productivity.

In total, Kforce had seven different lines of business and a history of mergers and acquisitions, resulting in sales communications that were:

1. Inconsistent in branding and messaging and did not reflect the Kforce offering
2. Dependent upon the effectiveness of the account manager's personal resources and creativity
3. Time consuming to create, reducing account managers' face time with clients and prospects

### **Building the solution**

As Sanford would readily admit, implementing a Pragmatech sales knowledge management solution was relatively easy compared to working through all of the issues that are inherent in organizing the documents of an organization that has grown through so many acquisitions. "Everyone had their own vision of what Kforce should be in their market," she said.

Before coming to Kforce, Sanford had worked at an insurance company that had used Pragmatech for developing proposals so she was familiar with the product. But where insurance is more of a product sale, staffing is more of a service sale and there are significant differences. For example, Kforce has separate and distinct business lines including technology staffing, finance & accounting, professional administrative services, banking, clinical research and scientific staffing, nursing, health information management, and government solutions.

Since the company makes both permanent and temporary placements, each proposal template must be available in at least two versions. According to Sanford, "For us that means every time we put out a document (template) we put it out seven different documents with two versions of the standard proposal, capabilities documents, work order confirmation documents—there's an entire menu for field to use."

It took Sanford and her team more than a year to sort out all of the document types and come to understand the needs of each division before she could come up with document templates that would meet the needs of all departments.

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The objective was to produce document templates placed on a secure Web site that field sales representatives access to quickly customize, bind, and deliver to clients. Working with Pragmatech, Sanford was able to translate her ideas into the document templates that would serve the needs of her diverse company.

### Results

As Sanford readily admits, "A typical Pragmatech implementation does not take 18 months, but there was a lot going on in the firm that had nothing to do with Pragmatech in those first 18 months, not pretty, but valid. When we finally launched the website Pragmatech was absolutely usable and what the field needed." She also credits Pragmatech's user community for support and idea sharing and she continues to be an active participant.

The first two documents went live in late 2005 and Sanford says, "We got to full speed quickly once we implemented those first documents." And the results were impressive, "The product is unique in that it's impossible not to like it." By the end of 2006 the website contained 28 unique documents and produced nearly 800 proposals. Proposals that once took people days or weeks to prepare can now routinely be prepared in minutes.

To ensure that everyone involved in selling uses the system, Sanford holds monthly training that helps new people get going and reinforces what veterans know while giving everyone the latest news on improvements.

The Pragmatech system has enabled Kforce to have better control of branding. As Sanford said, "It is critical to us that when a sales representative leaves a proposal it says what we want it to say and now we have that."

But there are also concrete financial benefits too. "We've documented a lot of savings and 'wins' from the traditional approach." Although she is happy to point to Pragmatech as a source of savings, Sanford's analysis is more nuanced when it comes to the actual numbers. "We have ten percent to twelve percent increases in wins year-over-year," she says, and some of that comes from using Pragmatech.

For example, in the first six weeks of use, Kforce experienced a 50% efficiency gain in proposal preparation. That efficiency gave sales people more time to "edit and review" their proposals to make sure they were right.

For the future, Sanford sees plenty to do. Before all proposals were done by separate divisions and sales and marketing could not impact some of the processes as much as they would have liked. With more time to "do it right," many in Kforce recognize, that as Sanford said, "We're finding that we have knowledge each other needs, we need to work better together, we're just beginning to step into that arena."

### Conclusion

Effectiveness solutions like Pragmatech's sales knowledge management system provide organizations with the opportunity to significantly improve their sales and marketing processes even if those processes have been built up over many years. It is not always easy to find the time to implement a game changing approach but as the Kforce example shows, it can be very worthwhile.

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Although every company is unique, many organizations face similar challenges to Kforce, whether it be wrestling with legacy business practices, ineffective processes or content that needs to be better aligned with buyer behavior. The Kforce example shows the benefits that are possible when taking a proactive approach to bringing marketing and message creation closer to the customer.

## Salesforce.com and EA Games

### Citation

We are happy to present a 2007 WizKids award to Salesforce.com and EA Games for the unconventional way that EA Games customized the Salesforce.com SFA tool to fit its Human Resources needs. If this was a story about jury rigging an application designed for one business process to do the work of another process, it would not be worth writing, and it would not win this award. But this really represents the evolution of a business process.

Jeff Hunter, director of talent, strategies, and technologies at EA Games rethought the hiring process and determined that, for reasons that made sense for his company, that hiring was a lot more like selling than the traditional model where the human resources department is charged with the responsibility of filling an employee “purchase requisition.”

That insight enabled him to define the technology that would support the business process of hiring people at EA Games. Salesforce.com provided the raw materials—a platform, a core application, and a growing ecosystem of partners to potentially draw on to build Hunter’s vision of a solution.

### Business problem

Electronic Arts (EA) is the world’s largest producer of PC games. With titles like the Madden Football series and Harry Potter the company supplies PC gamers with entertainment packages that suit many different tastes.

Building a game resembles an artistic endeavor like producing a movie. First, and perhaps most importantly, it is a collaborative effort requiring the input of software engineers, artists, game designers, and producers before the products are sent to manufacturing. The lead time for producing a game can be many months as these interdisciplinary teams work through all of the details. Also, the number of people who can do the work is relatively small, meaning that the employment picture is a sellers’ market. In most cases if a person with a special talent is not already employed by a competitor the person is likely still in school.

As Hunter explained in a recent interview, “The kind of people you need to hire to do these jobs are highly specialized and could have their pick of jobs.” Hunter has a background in selling and when he first looked at the hiring situation at EA Games, one of his first observations was that hiring talented people for the company was much more like selling than hir-

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ing. "It's about building relationships and getting people to want your solution much more than it is about filling a vacancy," he says.

These realities present multiple challenges in hiring. For example, many game experts are very reluctant leave a team in mid-production, even to take a better job. Team members want to see their creations ship as products both for the sense of accomplishment and because there may be financial incentives.

Students at university training in one of the disciplines sought after by game makers have a different challenge, they have little or no experience in the industry but because their education they are valuable and game companies must find other ways to track and evaluate their skill levels.

Hunter's plan was to develop a system that would enable him to apply what he knew about selling to the hiring process. To do that he needed to be able to track prospective hires, to understand what other projects they had worked on in the game industry as well as the results—the success of each game that went to market. For university students, he knew he needed to track things like courses taken and which professors taught the courses as well as grades received, graduation dates and much more.

Armed with this idea, Hunter went to the market to explore solutions and was surprised by what he found. Several traditional software consulting companies offered to build systems that would help realize his vision but each proposal was relatively expensive and required many months to develop. Worse, going that route would have required him to enter a conventional budget cycle within his company and since he was mid-way through the year when he started, that meant even more delay and expense. Hunter needed to find a solution that was cost effective, a way to start the process without delay, and a solution that could be deployed much faster than a conventional solution.

### **Building a solution**

At this point several things fell into place for Hunter. EA Games is also a Salesforce.com customer so Hunter was familiar with the product and the AppExchange and he thought that he could leverage the AppExchange to build what he needed. As hunter said, "Luck usually means having a couple of things that come together and for us it was having Salesforce and finding Sean Rehder.

Rehder is a Los Angeles based consultant specializing in human resources solutions who does some of his consulting work in the AppExchange. Hunter contacted Rehder on a Monday and described his situation and on Thursday of the same week, Rehder flew from LA to EA's offices in northern California to show Hunter a prototype that he built in three short days. Rehder was able to demonstrate, "About 80% of the functionality we needed," for one application, according to Hunter. "What was impressive," says Hunter, "Is that other consulting firms were telling me it would take them nine to twelve months to do the same thing."

Says Hunter, "Sean's one of those people who can take an idea and in a couple of hours bring it back as running software. Sean and Salesforce.com are the shortest line between a good idea and usable software."

Hunter hired Rehder to build the rest of the hiring solution he envisioned. The whole development team consisted of two people, Rehder working full time and Kristina Cavanagh a full time EA Games employee who devoted between 25 percent and 50 percent of her time to

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the project, mostly gathering requirements. Cindy Nicola also an EA employee was the administrative leader of the entire function.

### Results

The team—1.5 people—has developed four core applications in the last year to support the hiring process at EA Games including:

1. **Sales and sourcing** which stores a complete analysis of every game shipped by every company in the last ten years above a certain quality or commercial success level. Regardless of whether EA Games has ever received a resume from an artist, designer, engineer, or producer, the database contains references to all their work.
2. **Resumes** which contains all university, courses, professors, and other education related information for applicants who are still in school. There is also an event management tab, because as Hunter says, "We do a lot of events to bring in candidates," and this application tracks event data such as who attends, the event description, inducements that attracted the participants and more.
3. **Vendor and contract management** for third party independent developers who may provide contract services in the development of a game. Hunter found these people needed to be tracked as closely as other professionals. Attributes include prior projects and special talents each contractor might have.

### Future improvements

There are two additional applications in development one of which has a social networking component that tracks who knows who in the gaming industry. Hunter says that more than 45% of hires come through relationship hiring and this application simply provides a handle on the relationships employees naturally have. The company provides financial incentives to employees who recommend friends who are ultimately hired and this application is intended to improve that process. In total Hunter expects to deploy between ten and fifteen applications based on the core Salesforce.com system and AppExchange. By June of 2007 Hunter projects that EA Games will have more than 200 subscriber seats of Salesforce.com.

### The results

According to Hunter there are measurable results he can attribute to tracking candidates with the new application. The first interview process has improved because there is more information about the candidates and there are more candidates—continuous use of the system has expanded the pool of applicants by making EA Games a more desirable place to work. According to Hunter, by virtue of the fact that EA Games is one of the largest vendors in the market, many people shied away from jobs there preferring what they perceived as more creative atmospheres in smaller companies.

According to Hunter, in November 2005 for example, only about 4% of the eligible software engineers wanted to interview at EA Games but today that number is 18% due to better marketing the jobs. "That has reduced our lead generation costs by about 35% and led to a 100% ROI in less than nine months," Hunter told us.

## Conclusions

In many industries a hiring system might look very different from what EA Games has crafted. Those industries are more prone to suffering the ups and downs of the business cycle and they may have the luxury of being able to attract multiple well qualified candidates for any position. Hiring is a very different process in this technology sector and even when the economy may be slow EA Games finds it necessary to pursue its hiring process which includes capturing data on prospective candidates and analyzing the competition.

EA Games' hiring system is certainly a long tail application and while it would be possible to build it using other technologies, those other approaches would have been expensive and time consuming. We believe the significance of this case study is the example it gives that by using on-demand platform technology and development tools, a company was able to custom configure solution for a unique business process.

## Sapias and NSTAR

### Citation

The potential presented by combining global positioning, cellular technologies, and front office database systems is significant. So far though, most examples of this integration have yielded little more than so-called “mash-ups” that provide interesting graphical representation of data. But advanced applications that treat location like time—as a critical piece of data that can be analyzed and reported on—are beginning to make appearances with interesting results.

Sapias has developed an on-demand service that adds a new dimension to field service management. The solution has helped NSTAR, a Massachusetts based electric and gas utility, to better understand its service processes while providing opportunities to save on the numerous costs associated with dispatching repair trucks and crews to its subscribers. Sapias provides never-before-seen visibility into the field service process and for that the company wins a 2007 WizKids award.

### Business problem

Whether a field service business operates in the utility business such as natural gas, telephone, cable, or electricity, rolling a truck to maintain infrastructure or repair a problem is an expensive proposition in the business. In addition to managing costs for equipment, fuel, crew salaries, and materials, regulated utilities must also face the discretion of public regulators who have the power to set minimum standards as well as assess fines when the standards are not met.

The field service organization of any utility is always seeking balance between delivering top quality service and managing costs by deploying tools or techniques that help move the balancing point in favor of both is highly prized. Often a dispatch center has little visibility into what a truck or a crew actually does during the day and the dispatcher must wait for reports from the field by radio or cell phone.

NSTAR is an electric and gas utility in eastern Massachusetts that has similar challenges facing companies everywhere. The potential for capturing better real time data about the company’s fleet of 400 repair trucks and their crews led Doug Foley, a manager of electric operations organization to investigate the claims of an emerging company, Sapias, that it could help NSTAR optimize its resources by better understanding the activities and location of its repair trucks and crews.

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Foley conducted a pilot study involving some of the company's repair trucks and the results were significant enough for the company to proceed with a full roll out. The parameters Foley wanted to measure included:

- Service Center departure time at start of shift
- Average travel times between jobs
- Actual time to complete a job
- Total time that the vehicle was used as a tool (PTO start/stop)
- Miles driven per day
- Time returning to the service center

With that basic data an array of information that was either not previously available or which was not always precise could be calculated. In turn, better information would lead to better management.

### **The solution**

Sapias' proposition is that by better understanding activities and behaviors in the important areas of transportation, fuel use, labor, and risk management field service organizations can better understand their costs and deliver better service. Better understanding starts with better knowledge of truck location and crew activities for which Sapias provides its mobile resource management system.

The system consists of two parts—a small device that tracks truck position via global positioning technology and relays it back to a central on-demand management system that collates the data and updates dashboards. The device also tracks use of the key tool on a repair truck, its power take off (PTO) or boom which elevates workers to overhead wires.

The device is complemented by an on-demand application that is tailored to the needs of each utility. Reports and dashboards delivered by the application provide the information that managers need to make better decisions. Key areas of the business affected by the system include the following.

#### **Transportation**

The GPS based device routinely tracks and reports to a dispatch center when a truck arrives at or leaves a location. Capturing location data gives management the ability to know when a repair job starts and ends as well as always knowing where a truck is. For example, in an emergency the dispatch center can quickly determine which trucks may be in the best position to give assistance.

Since NSTAR is a publicly regulated utility, regulators keep watch on the amount of time electric service is out for customers and the company uses internal metrics to track this information such as Customer Average Interruption Duration Index (CAIDI) to help it meet its commitments.

Prior to installing Sapias, NSTAR would rely on drivers calling into the dispatch center to announce that a job was completed, but often the call may have been delayed until the driver found time to make the call. At that point the driver would give a best estimate of the time

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that service was resumed and the dispatch center would further round up the reported time to the nearest quarter hour. "Now we are getting more accurate time and better understanding of when a crew is ready to go to another job," said Foley.

Also, with Sapias NSTAR can get a truer reading of when service is restored and thus improve its metrics, "To provide a truer impression of what the customer sees," as Foley put it.

### Fuel use

Closely related to the transportation issue is fuel use. Repair trucks typically carry an integrated boom with a bucket that elevates a repairman to overhead wires. The boom is operated by hydraulics that are driven by the truck's engine. State and federal fuel tax laws are written such that when gasoline or diesel fuel are used in operating machinery like the truck's boom, the fuels are not subject to the same taxes as when they are used in transportation. So, a portion of the taxes paid on fuels can be recovered if a company like NSTAR can provide accurate information about their use. Over the course of a year a fleet of 400 trucks can burn a lot of fuel and recovering some of the taxes paid on the fuel can be significant.

Fortunately, the Sapias devices installed in each truck record when the boom or PTO (power take off) is in use. Not only does this information help determine the amount of fuel consumed in non-transportation use but it is also a reliable indicator of the progress of a repair and resumption of service.

### Labor

Gathering data about travel and resource use gives both supervisors and work crews new information to consider in performing their respective jobs. It also sets up a new dynamic in which crews become more self-regulating rather than waiting for direction from above. As a result, a pilot project using Sapias showed impressive results almost immediately in such areas as increased vehicle use, decrease idle time (non-PTO), decrease travel time, and decrease in miles driven.

### Risk management

Better data and the self-regulation it brings can have a significant impact on the way crews drive and records of location information can help in other ways too. For example, since many utility repair trucks look very similar, it may be hard for a civilian to know the difference between a telephone, cable TV or electric truck. If customers complain about repair truck activities, NSTAR can quickly determine if a truck was in an area when a complaint was made and if so, who may have been driving.

NSTAR began installing Sapias in its fleet of 400 service trucks in April of 2006 and while data is still being compiled on the impact it has had on the entire fleet, there is significant data to point to some impressive results. Prior to the full implementation, NSTAR performed an exhaustive pilot project using 31 line trucks and 13 first responder vehicles. The study made the following findings.

- For maintenance and construction vehicles—a 39 percent reduction in engine idle time, a three percent increase in engine off time, and a two percent reduction in miles driven. This translates into lower fuel consumption.

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- For first responder vehicles—a 23 percent reduction in engine idle time, a 16 percent reduction in travel time, a five percent increase in engine off time, and a five percent reduction in miles driven. Again translating into lower fuel consumption and lower costs.
- Simplified fuel tax filing, as discussed above.
- Improved Fleet Maintenance—Because it has better information about PTO and boom use, NSTAR fleet management can perform more cost-effective maintenance by scheduling preventative maintenance based on usage-engine hours-and not just miles driven. Also, the system is tied into the on-board vehicle diagnostics which enables earlier notification of critical diagnostic codes, resulting in the correction of issues during their early stages.
- Improved Outage Restoration—NSTAR used the exact time the boom was back in the cradle to determine the accuracy of the reported restoration time by the crew. Comparing the total work completion timeframe reported manually by the crew enabled NSTAR to identify an efficiency gap in the automated versus manual reporting, which allowed more effective measurement of the outage time for customers. This led to an improvement in the Customer Average Interruption Duration Index (CAIDI).
- Enhanced Safety—According to Foley’s pilot study report, “During a ‘mayday’ event where the crew calls in for assistance, the mobile resource management solution allows us to quickly identify the exact location of the crew and provide the location information to the appropriate emergency personnel. During a public safety situation, such as live wires on vehicles due to a motor vehicle accident, NSTAR can eliminate functional barriers by providing our first responder organization with a view into all available NSTAR vehicles in close proximity to the incident, thereby minimizing response times.

## Conclusion

The old truism that you can’t manage what you can’t measure applies here. With the introduction of a mobile resource management system from Sapias, NSTAR now has a steady stream of reliable information and managers have greater visibility into the service process.

Not only have managers been able to make better decisions about deploying resources, but they have also been able to reduce costs and in the process document better customer service. It is rare that a solution can do so many things at once, especially since some things like cutting costs and improving service often are at odds.

This study also documents the power of integrating multiple advanced technologies to produce a solution that could not be affordably achieved in any other way. It suggests that there may be additional opportunities for this kind of synergy throughout the business world.

## Skytide and Netli

### Citation

**F**or more than a decade companies have been grappling with finding optimal ways to analyze the increasing amount of data generated by their internal and external systems. At one point it was thought that the data warehouse would solve many of these problems but time has shown that sometimes the cure may be worse than the ailment. Numerous data warehouse projects were started with great enthusiasm only to fade without delivering any value for the millions of dollars invested. Moreover, some data was more appropriate for that paradigm than other types.

Skytide's founders observed the situation and worked in the industry for years before they identified a specific paradigm that they could address with a new product that reduces the problems often associated with data warehouse projects.

Skytide focuses on analyzing non-traditional data that does not fit the data warehousing paradigm such as situations with a large number of customer/client iterations. It is also common where customer interactions happen across various channels such as call centers, web, e-mail, IM, and chat. This 2007 WizKids award is presented to Skytide for their work with Netli, a sophisticated network acceleration company that had big data analysis challenges which Skytide helped reduce to a manageable scale.

### Business problem

Located in Mountain View, CA, Netli is a leading provider of web application acceleration and content delivery services. The company's basic service helps major corporations increase performance around the world for their web sites, commerce sites, and customer portals, so that end users have local-like response times. This service enables companies to avoid major expenses associated with building bigger data centers, which would accomplish similar results but with higher costs.

Netli needed a way to demonstrate to a company in California, for example, that its sites in the Far East would perform as advertised. The networks are very large and generate a lot of performance data, so providing that proof requires some rather sophisticated data gathering, analysis, and reporting capabilities. As Tim Knudsen, senior director of product management at Netli put it, "The core of the service is acceleration, but a big part of the service is

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also providing visibility into the benefits and activities that the users get on the sites we accelerate.”

In concrete terms, Netli needed to be able to provide traffic analysis that would prove the ROI proposition, as well as provide SQM (service quality monitoring) and SLA (service level agreement) metrics. “The problem I was facing was: How do I provide visibility into all this with minimal latency to various audiences that use our highly distributed network,” Knudsen said. Finally, part of providing visibility also requires forecasting demand, and in Netli’s case, the demand for its services and its analysis was expected to quadruple in a year.

Capturing and analyzing performance data for all of Netli’s customers is a big job, and as Knudsen evaluated his future needs, he concluded there were three options he could pursue.

- Netli could build everything in-house, including the data capture, storage, and analysis facilities needed. A development effort like this required time Knudsen did not have, as well as money to license database software and other tools, develop databases, parsing logic, a presentation layer, and massive storage. It also required some expensive labor in the form of database administrators and programmers.
- A traditional business intelligence (BI) approach, which still required buying database technology and hiring people, but which offered the ability to use packaged solutions for parsing and presentation, for example.
- Try a next-generation approach by using services available on the Internet.

Knudsen had some experience with Skytide from his prior job where he had evaluated the solution. Nevertheless, he made a thorough analysis of the major solution providers and invited them to discuss their approach to Netli’s needs. Along the way, he discovered that Netli’s need was out of synch with these vendors’ business models. The incompatibility arose out of the vendors’ desire to sell their solutions through Netli to each of Netli’s customers. Only Skytide offered a business model in which its product could act as part of the solution stack, without the need for an OEM relationship to sell licenses to the end customers.

### **The Solution**

In the end, Skytide was an easy decision that fit both Knudsen’s technical and business needs. Technically, Skytide works with terabytes of semi-structured customer interaction data in various formats to deliver a complete suite of business intelligence functionality focused on customer activity analysis such as customer value, service quality, and billing. This is accomplished without having to put data into a data warehouse or a database, and without having to convert the data through a custom ETL (extract, transform, load) process. Skytide delivers historical analysis and reporting in near real-time, which is not possible to do with conventional BI tools.

Skytide and Netli agreed on a short proof of concept (POC) to deliver a small subset of analysis and reports needed for the final deployment. The POC was used as a way to develop a comprehensive action plan and to identify potential problems and issues.

The implementation process started by using the POC at the initial planning stage. The POC lasted for five days and produced a set of analysis and reports that Netli then agreed to as

the scope of the project. The complete deployment plan was then developed in parallel with the actual deployment work. The technical implementation took 30 days, and then the system was tested for another 30 days running against production data sets. There were two third-party vendors involved in the project:

- **Agami**, which provided a low-cost NAS solution utilized by Skytide for data sources
- **IBM AlphaBlox**, which provided a web-based reporting layer on top of the Skytide solution

## **Conclusion**

As of this writing, Netli is processing more than two billion rows of data per day using Skytide, and the company plans to increase that volume four-fold in the coming year.

The company also expects to roll out analysis and reporting functions for its own business and internal users during Q1 2007.

With Skytide, Netli can offer its customers a complete set of BI capabilities without the inherent latency and complexity of traditional BI technology. With low costs and hardly any time needed for deployment, Netli is also freed from many of the overhead considerations that can take up significant time and resources, such as planning storage and ensuring for sufficiency. Because Skytide is a broad business intelligence platform, Netli can concentrate on what it does well—optimizing the performance of their customers' Web properties, rather than focusing on IT issues that are tangential to the business.

Furthermore, by relying on a next-generation BI vendor rather than a home-grown solution or a traditional BI solution, Netli has greater flexibility for scaling as its data volume increases.

Skytide solved a problem for Netli that many small and medium businesses have—how to get necessary business analysis functionality without the overhead, costs, and risks associated with conventional analysis solutions. Many companies that have already invested in more traditional approaches will be slow to convert to an on-demand solution due to the large investments they have already made. However, an innovation like this makes a robust BI solution a reality for companies that previously considered themselves too small or without sufficient resources to ever afford them. We expect many more end users to come to see the advantages of deep data analysis with innovations like Skytide.

## About the Author

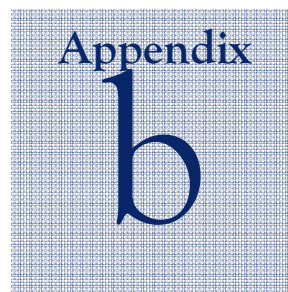
After a very successful career as an analyst, managing director of the CRM practice and thought leader at Aberdeen Group, Denis Pombriant founded Beagle Research Group, LLC to better direct his full attention to analyzing the CRM market and providing deep insight to vendor and end user customers.

As a recognized CRM thought leader, Pombriant's analysis of the CRM market has resulted in numerous insights. Beginning in 2000 he studied the CRM hosting industry and he was an early advocate of the business model. In 2003 he conducted significant new research in hosting and discovered a tipping point in user acceptance of the hosting model during the first half of 2003 that has led to rapid expansion in the industry.

Pombriant has led numerous research efforts and has authored or co-authored many major research reports on relevant CRM topics including hosting, CRM in the insurance industry, several spending and satisfaction surveys, and best practices reports.

Pombriant continues pursuing an active research calendar and is currently investigating CRM 2.0 to help determine the needs of the next generation of CRM solutions.

Pombriant's work is regularly published in CRMBuyer, DestinationCRM, CRM Magazine, and other CRM industry publications. He has also been quoted in E-Week, Fortune, The Wall Street Journal, Investors Business Daily, CIO Magazine, Computerworld, and InformationWeek.



# Beagle Research Group, LLC

Beagle Research Group, LLC is a consulting and market research organization focused on emerging companies with front office technologies that will have an important impact on the way business is conducted in the years ahead. Our work is based on professional standards of quantitative and qualitative research which informs all of our publications.

## **Mission**

The Beagle Research business model is based on the twin beliefs that primary research across multiple disciplines should drive most aspects of analysis and consulting in the high-technology markets and that direct and personal customer service should be the foundation of any advisory service. Beagle Research researches and analyzes trends in the customer relationship management (CRM) and Internet infrastructure markets as well as business, economics, and behavior sciences and provides insight and advice to vendors and end consumers.

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