How Fast Can You Respond?

The Return on Investment from

Enterprise-Wide Alerts

It's time to know.™

A White Paper by
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Management Summary

> "Enterprises with fast reaction times have a competitive advantage. They sell more product, deliver better customer service, and capitalize on new business opportunities sooner than their competitors."
>
> - Gartner Group

> "Event notifications are the end-game of business collaboration infrastructures. Although there are technologies that provide system-specific, event notification, these systems are stove pipe solutions. People want to be notified about multiple business conditions from multiple systems."
>
> - Meta Group

It's every business manager's dream to be in control at all times. Knowing what's going on and being informed of exceptions is fundamental to anyone who is in charge of a process—whether commercial, operational, financial, or administrative. The sooner a company knows about something, the earlier they can act to either rectify a problem or prevent problems in the first place.

New technology is pushing the boundaries of data usage, system interaction, and event notification, eliminating the delay between when events happen and when the right people find out about them. Company managers today face the challenge of information overload and need quick, concise, and timely delivery of information in a form they can understand and act upon immediately. To achieve competitive edge, organizations are moving beyond traditional passive reporting and analysis to realize the power and potential return on investment (ROI) of proactive business event notification. Automatic detection and communication of business events creates the *power to manage by exception*, based on deviations from defined business rules.

Business Alert Systems transform businesses into fast-reacting enterprises where managers are always up-to-date, receiving alerts on actionable events in all areas —from customer problems, service execution, supply chain collaboration, efficiency, financial returns, and risk exposure. Enterprises using alerts have experienced more than 600% ROI, increased revenue through higher customer retention, and reduced costs by proactively preventing problems and saving managerial time.

Steering Through the Rear View Mirror

Traditional reporting mechanisms provide valuable historical data and will always serve a vital business function. However, reports are not the optimal medium for all information distribution. Relying solely on reporting tools and/or data warehouses equates to trying to navigate a business through economic challenges or competitive threats by looking backwards—like trying to drive a car forward by looking in the rearview mirror.

In an attempt to get more value from the raw data they possess, corporations have turned to data marts or business intelligence solutions that are fed from databases of operational information collected from internal systems, as well as customers, suppliers, and partners. These systems contain a wealth of information but often require complex and time-consuming analytical effort in order to deliver benefits. Because data warehouses represent a static copy of a corporation's database of record, they cannot be the source for real-time business event detection. Depending on the rate at which a corporation chooses

to refresh its data, opportunities can be days or even weeks old before they are discovered and communicated. With the business world moving at Internet speed, latency of just hours to days can mean opportunities or customers that are lost forever.

Database vendors and application solution providers have attempted to solve the latency problem by applying low-level technology such as triggers and stored procedures that alert management when items reach a critical state, low stocks for example. But the point that matters is: How many solution vendors can scan disparate databases to monitor single business rules and then dynamically inform the relevant manager, customer, or supplier via e-mail, pager, cell phone, Web site, fax or other methods? Moreover, how many companies store the cost of a product, the demand situation, the competitor's prices and policies, the profit contribution, the supply chain situation—possibly including weather forecast information—all in one database, instantly accessible? Within most organizations, this information is lost across multiple databases, causing the organization to be "data rich but information poor."

Business Alert Systems: The Fastest Way to Find Out How to Take Action

Now technology is evolving to meet managers' changing needs, allowing companies to extend their capabilities beyond the realm of basic reports and latent data analysis tools. Business Alert Systems provide advanced notification that connects actionable information from any corporate data source to the people who need it, using their preferred communication mode. Business Alerts Systems unlock the value buried in corporate information systems, eliminate slack, and optimize company resources. Business Alert Systems allow companies to manage and leverage mission-critical data—regardless of the data source—into business benefits on a virtual real-time basis.

Though reports will continue to play a key role in business management—even in the most progressive fast-reacting enterprises—Business Alert Systems provide distinct services:

- Alerts are faster—they're delivered within a predefined window after a business event—usually within minutes; reports can take days, even weeks.
- Alerts are user specific. Discrete pieces of information are delivered to targeted individuals.
- Alerts are delivered anywhere by e-mail, cell phone, pager, Web, fax or outbound EDI/XML based on user preference; reports are generally distributed, which tie recipients to systems, printers, or terminals.
- Alerts are typically unanticipated, based on exceptions to business rules. Reports detail the anticipated; unanticipated facts may escape notice.
- Alerts can suggest proper action relevant to an event; reports just show historical data.
- Alerts are automatically initiated by an event; reports are initiated or scheduled by a person at a particular point in time.
- Alerts can cross enterprise boundaries to extend to suppliers, customers and partners, enabling integration and collaboration.

With business alerts, the right people get the right information when they need it wherever they are. Not only do alerts make the organization and its staff more agile, they also uncover a tremendous opportunity for connecting customers and suppliers into a collaborative digital nervous system. With business partners acting in concert, the promise of instant event notification through alerts can transform organizations into fast-reacting enterprises.

Benefits of Business Alert Systems

Just imagine the potential savings resulting from early detection of customer service problems. The discovery of just one VIP customer's complaint in time to proactively offer a solution—and before the competition wins the account—may well return the investment in an event notification system. Alerts transform customer claims into positive experiences, using existing IT applications and common communication devices to the company's competitive advantage.

Alerts improve the overall business in other meaningful ways:

- Improved customer service, satisfaction, and retention resulting from reduced service failures
- Improved use of assets including equipment, fleets, warehouses, and capital
- Improved cost control by reduced lead times and faster collection
- Enhanced market image and increased market share through proactive versus reactive customer service
- Reduced fraud, re-work, escalations, expedites, and other inefficiencies resulting from operational mistakes
- Increased managerial productivity by eliminating time spent searching for data which can be sent proactively via an alert

Calculating the Direct Savings of Business Alert Systems

Alerts provide benefits in two main areas: cost savings and revenue enhancement. First, cost savings is associated often with time savings. Consider the time a manager spends looking through reports to find critical pieces of information. With business alert systems, the critical pieces of information can be pre-established as alerts, so they are delivered automatically to the targeted manager ("set it and forget it").

According to an InfoCorp research report (June 1998), executives estimate that proactive event notification would save them between two hours and one full day per week. With eleven working months, a potential saving of two weeks to two months per year results. Multiply this figure with the number of senior managers in a typical enterprise and the potential efficiency improvement is daunting.

Another area of cost savings is in identifying problems before or as they happen, so fast action can be taken to avoid or mitigate the problem. Consider the use of alerts in a just-in-time manufacturing environment for the purpose of tracking deliveries from suppliers. By identifying and communicating late deliveries from suppliers at the moment deliveries are supposed to occur, materials buyers can take action quickly to avoid disruption to a production line.

Estimating the ROI of identifying and communicating late deliveries quickly requires identifying the cost of lost production time and the amount of production time saved with alerts. Assuming an hour of lost production time is $50,000, and alerts can reduce the number of hours down from 48 to 24 per year, the savings based on alerts is $1,200,000 per year.

Finally, cost savings can be realized in handling customer problems with alerts. One Categoric customer calculates that solving a problem within one hour of its occurring costs $57; any time beyond

one hour and problem resolution costs grow to an average of $467. For this reason, the company uses Business Alert Systems to communicate customer problems to all personnel handling the particular customers' arrangements.

Alerts provide a second type of return on investment: revenue enhancement. A transport company, for example, can use alerts to identify underutilized containers within a specified number of days before the container ships out. In so doing, a price reduction can be communicated to agents and customers thus generating demand to fill the space. The return in this example would be the amount of revenue generated with the communication of the price reduction.

Another example is inventory control. Similar to the forward load balancing example above, a distributor can automatically detect when inventory is either perilously low or, alternatively, on the shelves too long, and communicate that to warehouse managers and suppliers. In the former case, suppliers can replenish more quickly, and in the latter case, a promotion to reduce on-hand inventory can be implemented quickly. In both cases, revenue is generated, and generated more quickly, than it would have been without alerts.

Finally, managerial alerts that identify when established thresholds are breached can help control and produce revenue. For example, an alert that tracks margins at a retail outlet can automatically detect when margins fall below acceptable levels, and communicate this information quickly to the regional manager. This example is highlighted in the case study of this white paper.

Case Study: Carpetland's Wall-to-Wall Success

Carpetland is a major European retailer, with more than 160 stores and 1,200 employees throughout Belgium, France, Holland, and Switzerland. The chain specializes in floor covering and home decoration ideas for the average consumer—but the business results are far from average.

Attention to detail is crucial at Carpetland. Even minor, undetected errors in inventory or sales performance directly impact profitability. Before using Categoric, many small errors were simply too small to spot. Carpetland could only look at results in total, making it easy to miss important events and trends at the branch level. Carpetland relied on a complex network of systems, piecing together reports based on needs. Managers were forced to sift through stacks of lengthy reports to find critical information. The process was time consuming and inefficient—and the result was a reactive business approach, adversely affecting business decisions about inventory, compensation, and profitability.

Categoric Alerts floored Carpetland. Carpetland's top executives—including the company's owner and CEO, Leon Saynave—immediately grasped the possibilities of the product. CFO Paul Van Tomme confirms, "After one or two meetings, we decided to give it a try, skipping our normal internal review process. We knew this product could improve our business tremendously. In fact, we bought Categoric Alerts without even knowing exactly where or how we were going to use it—the prospect of implementing management by exception was that powerful to us." The implementation took a very short time, largely because the system leverages the investment and utility of existing databases and infrastructure. Within four weeks of the initial implementation, Carpetland was enjoying the benefits of business alerts. And because Categoric Alerts requires minimal end user training, effective system operation started immediately.

Carpetland Continued

Currently, Categoric Alerts serve upper management, monitoring the key discount and inventory processes at the store level. Managers receive e-mail alerts for the shops they oversee, allowing for instant notification of critical business events. One of the first Alerts implemented notifies store managers of fluctuations in inventory that vary from normal levels. The Alert notifies the store managers when the inventory of popular carpet brands and styles drop below the desired level. The Alert does not replace Carpetland's inventory management system, but builds on its effectiveness by proactively sending necessary information to store managers who can concentrate on selling and filling orders without having to request and read daily inventory reports.

In day-to-day operations managers can also monitor the number and range of discounts offered across the organization, as well as by individual regions, stores, and employees. By receiving Categoric Alerts when amounts exceed set discount standards, district and region managers can proactively manage discount practices at each store in their territories. Close monitoring of this behavior maintains healthy margins and ensures profitability.

Another area where Carpetland found Categoric Alerts beneficial was in helping store managers recognize errors and inconsistencies more easily. For example, input errors in the carpet style number can cause the inventory records to misstate the quantity, cascading simple mistakes into complex reporting errors. By cross checking the order and the inventory entries, Alerts can eliminate the possibility of managers making crucial decisions based on data from erroneous reports.

Categoric Alerts revolutionized the way Carpetland works, drastically reducing the number of reports necessary to effectively manage the business. The search for information was eliminated. Now critical information quickly finds the right person. The business operates more smoothly day-to-day. Managers receive Alerts allowing them to monitor inventory and margins without having to pore over piles of reports—and because Alerts work across all IT systems, the monitoring happens on a store-by-store basis or across the enterprise. Important information no longer gets buried or goes stale in the distribution process. The right things get noticed by the right people automatically.

"Retail business is detail business. And details are the problem and the opportunity," Van Tomme said. "Before Categoric, we worked in the traditional way lots of systems, lots of reports, lots of paper, lots of errors and lots of time. Categoric Alerts allow us to manage by exception, giving us an enormous competitive advantage. We can manage our business the way we want to, and we can identify important trends. If we improve margins by only 1/10 of a percent, our payout increases by a multiple of 20. At this point, we're only using Categoric Alerts on a small scale, and we've already had big-scale savings."

Eventually, Carpetland envisions a much broader implementation, developing alerts to serve a wide range of team players—from every store employee to the entire chain of suppliers. In addition, Categoric will provide vital trend analysis capabilities. This enterprise wide deployment of Categoric Alerts will help Carpetland realize their goal of zero latency.

Evaluating Business Alert Systems for Business

In order to provide the optimal business alerts solution, the selected system must be very robust and provide the most flexibility in connecting to the various databases. It must be able to deliver critical pieces of information to targeted individuals as key business events occur, or not occur. There are several solutions in the market that provide some degree of alerting capabilities. Many of these solutions have limitations that made the implementations relatively difficult and the extensive use of alerts impossible.

The following criteria should be considered when evaluating a business alerts system:

- *An alert system must have the ability to generate alerts from any system.* Alerts must manifest a business perspective, not a system-specific perspective. As a result, alerts must be generated from any existing database, application or system, and from multiple systems. This allows the monitoring of events between vendors' databases and enables the collaboration between suppliers, partners and customers.

- *Alerts must be generated from a variety of inputs, systems, and events.* In addition to running SQL queries to identify events reflected in relational databases, an alerts system must capture events generated by database stored procedures and triggers, as well as support common data formats and messaging protocols, such as XML and COM. Only through such a solution can meaningful alerts and recommended actions be generated from many systems and events.

- *Alerts must be sent to user-accepted communication devices.* Some alerts require immediacy; thus sending an alert via pager, cell phone, or PDA is required in addition to Web page, e-mail, or fax. Alerts may need to be sent to external systems, thus an alerts system must also be able to output in XML or EDI format.

- *The system must have minimal impact on existing systems*. While accessing existing systems to generate alerts, an alerts system must not require changes to those systems. The solution must be installed and configured easily, and tools must be provided to manage both systematic as well as alert functions. This allows the solution to be implemented quickly and maintained easily without major impact to the IT organization.

- *Alerts must be created and managed centrally.* Having alerts resident in various systems means that they can not be managed easily, nor can they provide a comprehensive view of how the alerts are managing the enterprise. Business managers must be able to specify and implement the business rules for alerts quickly, monitor the effectiveness of the alerts and alter them based on business conditions.

Categoric Alertsä : The Industry Leading Solution for Business Alerting

Categoric Alerts enables organizations such as Carpetland to manage their businesses proactively as events happen. No matter who receives the alert— staff, supplier, or customer—organizations benefit as users are enabled to make operating decisions based on real-time information from the universe of existing data sources within a company or across a value chain network.

The key differentiation of Categoric Alerts is that it is a separate, comprehensive architecture for alert functionality. As such, advanced alert functionality is built into the product which enables rapid construction and maintenance of alerts. Enterprise considerations such as scalability, reliability, and

security are addressed with a distributed architecture that scales to handle enterprise requirements both in terms of processing and manageability. Finally, by supporting industry standards and protocols, a variety of inputs and output devices are supported, enabling deployment in any corporate environment.

The following graph summarizes how the various technologies stack up against Categoric alerts in meeting the requirements for a comprehensive alerting solution.

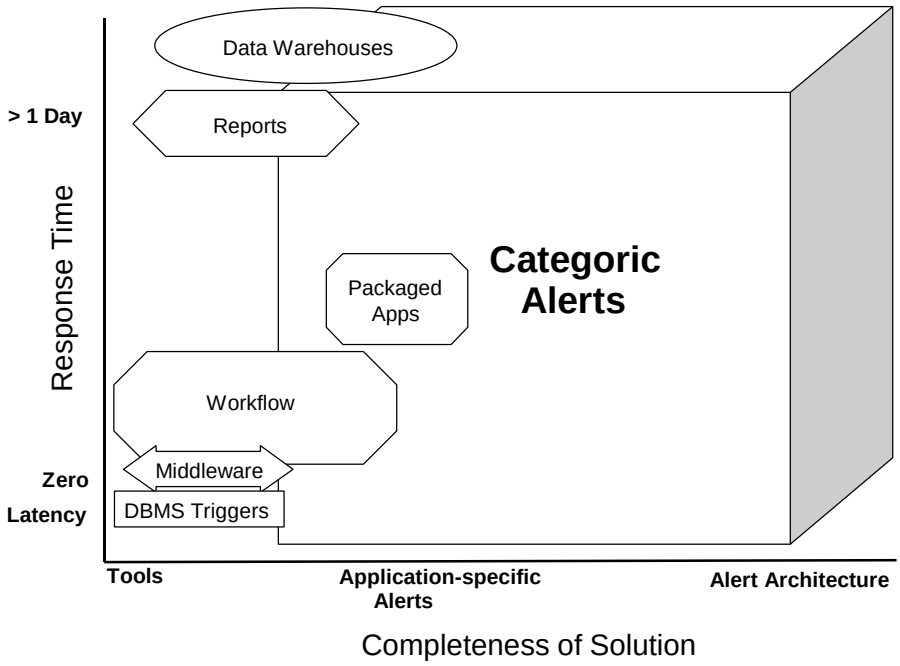

Figure 3: Categoric Alerts meet all requirements for a comprehensive business alert system.

None of the solutions available on the market provide the necessary components and characteristics for delivering the right information to the right people at the right time. For these reasons, Categoric has developed its comprehensive alerting system, Categoric Alerts.

Giving Companies Time to Know

Categoric Alerts is the first business event notification system that provides a powerful, integrated solution for creating and delivering alerts within an existing system environment. The Categoric Alerts solution is comprised of four components:

Alert Server is the central processing server for generating alerts. The server processes the rules associated with individual alerts, including accessing specified data sources and, if the desired business event has occurred, sending the alert to the right person or people via the specified communication device(s). The Alert Server is a scalable, distributed system with fail-over capabilities to insure reliability, as well as management tools to ease system administration.

Alert Administrator performs two functions. First, it provides a point-and-click interface for creating, scheduling, and distributing Alerts. Second, it is the central repository for managing Alerts. The Alert Administrator is used by alert administrators and IT personnel for building and managing the set of alerts for the company.

Alert Trend allows information about alerts that have been generated over time to be displayed graphically for the purpose of identifying trends in the business. Alert Trend allows companies to identify trends in key performance areas, providing intelligence on where performance can be improved. Alerts can also be set to run against Alert Trends, providing an excellent management tool for notifying managers of trends important to their businesses.

Alert Publish and Subscribe allows administrators to publish alerts on a Web site so that users can subscribe to the alerts they would like to receive. This functionality is especially helpful in extending and controlling access to important information to constituents outside the boundaries of the corporation, such as customers, suppliers, and partners.

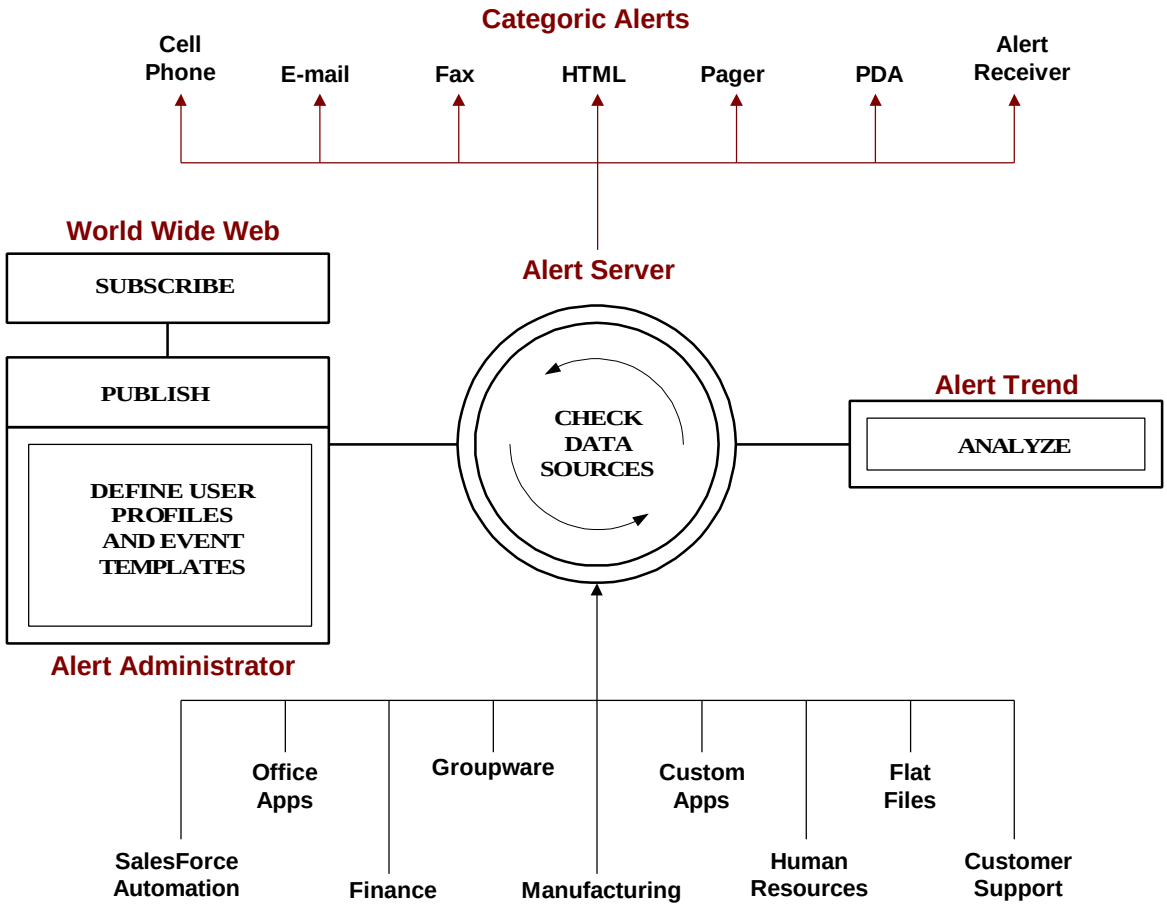

Figure 4: The Categoric Alerts Architecture

ROI to Take The Enterprise into the Next Century

Categoric Alerts brings business unprecedented ROI by extending the functionality of the current IT investment. By working on top of existing systems, more return can be realized from those systems by raising the visibility of critical data more quickly to more people.

Categoric Alerts is based on a standalone architecture, so the system installs very quickly—IT can set up and initiate the first Alert in just one day. Equally important, no alterations are required on the source databases and systems, minimizing system impact and speeding the implementation.

With Categoric Alerts, training costs are very low—recipients receive alerts on communication devices already familiar to them.

Most importantly, Categoric Alerts help align IT more closely with business objectives. By implementing a system for identifying and tracking critical business events, IT adds value to existing systems with great benefit to the business. And business can focus on moving the business forward, rather than combing through stacks of static, historical reports. Operations become much more responsive and customer satisfaction and loyalty improve.

Call Categoric Today

To learn more about how Categoric Alerts can help your company become an alert e-Business, or to request a information package, please contact:

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