Managing Interruptions to Reduce Risk
Optimizing Performance in the Insurance Industry
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Executive Summary

Business processes govern most if not all of the business activities driving your enterprise and having the true visibility and control to manage the risk associated with running the business is increasingly critical. Whether it is a contract enrollment process, claims processing, fraud detection, or being able to sell across all product offerings, it is critical that your business processes execute as planned. However, when they do not, business exceptions are created and the exceptions must be addressed quickly and efficiently. These exceptions occur as processes break down, as new ways of doing business replace old, as new systems are introduced into the infrastructure, or as information requirements change. If not well managed and controlled, exceptions will increase business risk, reduce overall profitability, decrease customer satisfaction, and impede growth. For example, one of our major US insurance clients stated: “All insurance firms have exceptions and they are affecting the company’s bottom line between 8 to 12%.” However, the indirect impact of exceptions – including indirect costs, lost revenue, dissatisfied customers, and lost agility – is even greater. Current tools and approaches to address business exceptions are incomplete, expensive, and cannot offer the required true end-to-end visibility over heterogeneous environments, applications, and systems. Thus, companies are seeking a better approach to get the upper hand with this complex problem. This paper discusses how and why exceptions occur, the high costs of managing the exceptions within the insurance market, best practices to managing exceptions, current approaches and their limitations, and the next-generation of exception management technology.
What are Exceptions?

Every company relies on well-designed, properly executed business processes for success. But what if the processes do not execute as planned? What happens to those transactions and what are those errors costing your business? When business processes are interrupted, exceptions are created diverting the business transaction into offline handling and those exceptions can easily account for over 50% of process related costs.

Exceptions can occur in any type of business process and at any level of the business process (business level, process level, services level or system level). Insurance examples include: the process of applying for an automobile insurance contract or policy, submission of claim, and exceptions in payment method. If in any of these processes, the information is missing or incorrect or if the system fails, then these transactions are delayed or abandoned and become an exception. Now the transaction requires special handling and the cost of executing it, in both time and money, increases significantly. The diagram below illustrates a simplified view of submitting for an auto contract over the internet and possible business exceptions at the various stages in the auto contract cycle:

![Figure 1: Example of Auto Contract Enrollment with Business Exceptions](image)

Although, exceptions cannot be eliminated, they can be made more visible and be better managed. And companies that manage them well will gain competitive advantage, reduce costs, reduce risk and increase operational efficiencies. Unfortunately, few companies are prepared to manage and resolve exceptions today. Exception management is often an afterthought, with little attention applied to the problem of managing failed transactions. Usually the solution that is adapted or developed is focused on the current situation and cannot grow or extend to meet changing business or operational needs. However, as the company grows, both the frequency of exceptions and the cost of their resolution tend to grow even faster.

Impact of Business Exceptions

Exceptions create greater risk in running your business, impacting your bottom line. They distract your company from making sales, meeting customer needs, and effectively running your day to day operations. Regardless of where the process breaks, it will impact your business activities. So, quite simply, you want to avoid the exceptions to ensure that your processes run correctly. However, in today’s enterprise, most business processes cross departments, systems, and
other entities in order for the business process to be completed over a period of time, adding to the complexity of executing the business process. An insurance contract enrollment where many systems, entities, and business processes are required to complete the contract, is an example of such business complexity. In fact, most business exceptions occur between enterprises and among departments within an enterprise – not within a single system or sub-process. This complexity, together with the difficulty of determining where the exception is and how to resolve it across the multiple systems and processes, makes the situation even more challenging.

Add to that the market challenges facing your industry:

1. **Risk management and regulatory pressures.** With the risk of insurance fraud, claim settlement issues, and with different entities (sales/broker, underwriter, risk department, accounting, etc.) involved in each step of the business process, day to day operations become even more complicated and risky. Add in the potential time delays associated with contract enrollment issues and claim settlement issues and the effort necessary to meet all regulatory reporting requirements, it almost seems impossible to manage the risk factors.

2. **Consolidation and Globalization.** The numerous mergers and acquisitions are a trend that will continue and the challenge of merging culture, processes and systems is very daunting.

3. **Empowered customers.** The new, smarter customer can almost instantly compare products, services and prices. The challenge is to offer the right combination of products and services through channels and the internet that will resonate with your target segment. This is not an easy task.

4. **Product commoditization.** Your customer can essentially sign up for a contract or submit a claim in multiple ways – online, with a broker, or through customer care. The on-going challenge is to differentiate by developing new products and services that will appeal to specific segments and demographics.

5. And finally, **competitive pressures** make growth, profitability, product differentiation and securing customer loyalty much more difficult.

Operations must support an agile enterprise so new opportunities can be sought out and acted upon quickly and efficiently. Meeting the above challenges requires your business to increase the complexity of products and services offered, add new data sources to your processes, incorporate new customer or supplier information, and design and deploy new business processes to make the aforementioned agility a reality.

Even with large investments of time, effort, and technology, exceptions occur frequently in the modern enterprise due to the constantly changing business environment and business processes. Exception rates vary across processes and industries; mature, established, scalable processes might exhibit exception rates from 2-10%, while new processes may perhaps have rates anywhere from 20-80%. The normal rate of exceptions will vary for your business, but if exceptions are not addressed systematically they tend to grow exponentially. Businesses with a framework in place to discover, manage, resolve, and adapt to existing and new exceptions can avoid this. With increased visibility and
efficient management of exceptions, their negative impacts (unlike the exceptions themselves) are not inevitable. Savvy enterprises see exceptions not as a “cost of doing business” but as a reality of business whose impacts can be controlled through proper business exception management.

Exceptions are Costing You More Than You Think

Every business relies on optimized and smartly executed processes. And every process step costs the company both in time and money. Therefore, when processes do not execute as planned, the number of steps increase which raises the overall costs. Some exceptions are much more costly than others, and the true scope of the problem is rarely completely understood. The size of the exception problem can be likened to an iceberg – there is a visible, above water portion of direct impacts which are the obvious costs and the underwater portion, which is much larger and where the actual danger exists in the indirect impacts.

A recent Datamonitor report states: “The research shows claims processing takes up between 70% and 80% of the running costs of a typical general insurance company. A staggering 20% of this is on administration costs.” 1 Break this down and you see that efficient management of processes is critical to your company’s success. Imagine if you could reduce the percentage of costs attributed to managing these processes – you would be better poised to take advantage of new opportunities and ultimately beat your competitors.

The insurance industry is not the only industry facing the exception management challenge. Across several industries including financial services, healthcare, telecommunications, manufacturing, and retail industries, worldwide annual direct exception management costs exceed $10 billion. Remarkably, these costs are primarily the personnel costs associated with manual exception handling and non-systematic, one-off exception automation efforts only.

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1 From the report “Inefficient claims processing costs European insurers millions” 2007
The costs associated with more regular exceptions such as online store disruptions, logistics breakdowns, or back office system hiccups would certainly significantly increase the $10 billion number.

To the very expensive direct costs, the indirect costs must be added. The indirect costs are where the insidious impacts of poor exception management create far worse problems.

The indirect, but highly damaging impacts of exceptions include: higher indirect operating costs, lost revenues, customer dissatisfaction, diminished agility, and the inability to scale. Basically, these indirect costs most threaten your ability to grow your business, maintain competitive positioning and respond to the market opportunities. The impact to customer satisfaction is most concerning. A report from the National Associate of Insurance Commissioners cites “the top three reasons consumers filed formal complaints against their insurance companies in 2007 were delays, denials of claims and unsatisfactory settlement offers.” Each of these issues can be directly related to process breakdowns.

Finally, the decreased agility and inability to scale impacts a business’ long-term ability to compete and be profitable. On-going or mismanaged exceptions can reduce your ability to take new offers to market or accurately meet legal and regulatory requirement such as Sarbanes-Oxley. Additionally, scaling operations will be limited if the exception rate grows more quickly than the business - which it is likely to do if not attended to properly.

Poor exception management is a significant near-term and long-term problem for businesses. However, the fact that exceptions are inevitable does not mean that the significant negative impacts of poor exception management are inevitable. Companies addressing the problem of exception management have identified several best practices, reviewed in the next section.

**Best Practices for Business Exception Management**

Faced with the challenge of managing business exceptions, savvy enterprises are implementing best practices. The eight best practices listed below comprise the foundation of a good exception management process.

Exception Management Best Practices:

1. Understand that exceptions are a natural product of business change and improvement, and must be managed in a sustainable way.

2. Adopt a holistic view of business exception management. Exceptions must be visible at a cross-application/ cross-process/ cross-partner level, because this is where many exceptions arise – in the interactions among applications and processes, not solely within applications or sub-processes.

3. Manage the entire exception lifecycle. Good exception management captures exceptions when they arise, routes them to the most efficient resolution path, and maintains status on exceptions across applications and across enterprises.

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2 The NAIC report “NAIC Cites Top Insurance Complaints for 2007,” 1/30/08
4. When exceptions arise, understand and eliminate root causes, automate their resolution where possible using business rules and processes, and accelerate their resolution using smart guidance and a 360-degree view of exceptions.

5. Be sure to separate code and content in the exception manager tool in order to simplify the addition of exceptions and resolution rules as the business changes.

6. Use a modular approach, allowing the reuse of existing exception management resolvers as your scope of exception management grows across processes, systems, and partners.

7. Ensure that exceptions are visible in real time, and that a feedback loop is in place to enable adaptive learning based on performance and opportunities for continual improvement.

8. Implement exception management within a process or initiative and then expand systematic exception management across the enterprise and to partners.

Current Approaches and Their Limitations

Since a business exception implies that additional steps need to be performed to complete a transaction successfully, there must be a method in place today to manage the exceptions that are taking place. However, due to the nature of first and second generation exception management tools, few enterprises have been able to fully pursue a program of enterprise exception management. A key hurdle to implementing best practices in business exception management has been the weaknesses of existing approaches and the difficulty of integrating these approaches into an effective management process. Three basic business exception management approaches are widely used.

1. Manual Exception Handling

The most common and easiest to understand approach is manual exception handling. In this approach, a person is alerted about an exceptions handling. Through “swivel-chair integration” – the use of multiple terminals at a workstation to access needed systems – the recipient will diagnose the issue, modify the transaction, and restart processing.

Limitations:

- Manual intervention, although flexible and quick to implement, imposes a high operational cost that grows as the number of exceptions grow.
- It is difficult to scale and manage as needs fluctuate.
- There are potential issues with reporting capabilities. A secondary manual process will be required to capture exception data.
- This will likely lead to high maintenance costs.
- Quality of the resolution may not be consistent and knowledge of the resolution may not be stored or transferred properly.
2. Modify and Extend Existing Systems

A second common approach to exception management is to modify pure-play business process management (BPM) applications or integration suites, rules engines, and/or core process applications for exception handling. This approach does automate exception handling, but has drawbacks. A significant downside is that the addition of custom exception handling routines increases complexity resulting in longer QA cycles, longer upgrade times, and reduced flexibility in the processes these applications support. These problems are particularly acute if custom development (beyond parametric changes to business rules) is required.

Limitations:

- Customized BPM platforms or integration suites increase support costs and reduce the flexibility to take advantage of new features and capabilities as the vendor adds them.
- Integration suites cannot capture detailed exception status for reporting purposes.
- Pure-play BPM tools, integration suites, and rules engines all lack extensive pre-built exception-handling frameworks and require IT to build and extend new and existing frameworks from the ground up.
- Pure-play BPM tools and rules engines preclude easy integration with external applications and processes, and cannot retrieve and apply data from multiple systems to resolve exceptions.
- Rules engines work well with structured data and consistent sources, but are unable to handle unstructured, complex data or data from multiple sources well.
- Core business process applications have evolved with the focus on a single business process, and have limited ability to integrate with other applications without expensive customization.
- Older legacy systems are inherently fragile and may be uneconomic to modify for exception handling purposes.
- Multiple products are required and need to be integrated to offer a true end-to-end exception management life cycle resulting in a costly implementation.

3. Custom Exception Handling Tools

A third approach is to create and deploy custom exception handling tools, scripts, or programs on a per-exception basis. This approach does automate exception handling but has a number of downsides, including long and costly development timeframes, high ongoing maintenance costs, and difficult integration. Custom developed solutions also tend to reduce the flexibility of business applications and supported processes. These stand-alone custom applications do address specific problems, but are not built to support integration across multiple systems or comprehensive reporting. A
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A business could build a custom integrated tool suite to support a full business exception management process, but this approach would turn an IT organization into a software company with a total market size of one – not a very appealing approach.

Limitations:

- Purely custom applications could meet all the needs of a business exception management process, but they require long development times and high initial and ongoing costs.
- Potentially difficult to modify custom solutions to support future environments and new applications.

Attempting to address the shortcomings of each approach – or of the particular approach you are considering adopting – increases the complexity and effort required to implement good business exception management processes. Not to mention it distracts from the focus on your core business activities. Instead, customers need proven technology that is quick and easy to deploy, provides an end-to-end view of the process, requires little training for both business and IT teams and will run smoothly with existing BPM solutions and infrastructures.

Next Generation Exception Management

As mentioned above, the existing products do not offer an ideal solution to meet the exception management challenge. Companies need a comprehensive exception resolution solution - including automation and notification – to better manage risk, respond to rapidly changing business conditions, and manage compliance requirements. The solution must handle multiple resource constraints and tie events to business policies and objectives.

The next generation solution is here. Vitria, an innovation leader within the BPM market, introduced Vitria’s Exception Management Solution to help companies act quicker, faster and smarter to resolve issues and take advantage of opportunities. Now, with Vitria’s Exception Management Solution, customers can gain visibility into events to understand implications and act to reduce risk and costs while improving operational efficiencies. Vitria’s Exception Management Solution is the only solution built to manage the complete lifecycle of exceptions across your enterprise with unprecedented visibility and control, empowering both the business and IT users. Now, you can sense, analyze and respond to exceptions, provide a more automated resolution and minimize service disruptions. Further, the additional automation may allow for redeployment of resources enabling improvements in resource management.

Vitria’s Exception Management Solution is designed to support best practices in business exception management and close the gap between today’s available tools and the needs of businesses. This new innovative solution leverages best practice in exception management, and is based on customers’ experiences in developing exception management capabilities using Vitria’s technology platform. Unlike BPM tools, integration suites, or rules engines, Vitria’s Exception Management Solution contains generic and process-specific

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A large North American Healthcare Insurance provider faced unacceptable first pass rates for claims processing. Invalid claims were suspending in adjudication causing expensive delays and requiring intervention. And they had poor visibility into claims processes impacting customer services levels. After implementing Vitria’s integration and exception management platform to improve its claims management process, this insurance provider gained:

- 15% improvement in auto adjudication rates
- Expected $7.5M in cost savings
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exception handling routines, allowing for quicker implementation and faster payback on new exception management processes.

Vitria is known for its strength in cross application integration. Vitria’s Exception Management Solution leverages this strength to enable integration across internal and external systems and processes. The integration strengths of Vitria’s Exception Management Solution allow its capabilities to be applied to today’s initiatives and for it to be expanded across processes as needed in the future. The diagram below illustrates the architecture of Vitria’s Exception Management Solution and its integration capabilities:

**Figure 3:** Vitria’s Exception Management Solution high-level architecture

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### Key Capabilities of Vitria’s Exception Management Solution

As the only specialized purpose-built product designed to systematically approach resolving exceptions across your enterprise, Vitria’s Exception Management Solution delivers the core capabilities needed to manage the complete lifecycle of exceptions.

**Automated and Assisted Exception Resolution**

By applying easily-maintained automated process models and rules, Vitria’s Exception Management Solution can automatically fix exceptions that don’t require human involvement. If manual processing is still needed, Vitria’s Exception Management Solution efficiently guides users through exception-specific resolution tasks with context-appropriate data and resolution options. Automated resolutions eliminate delays and free up available staff for other work.
**Role-based Collaboration and Modeling**

Vitria’s Exception Management Solution user interface changes depending on each user’s role, and limits or extends options available depending on each user’s authority and task rights. Role-based collaboration enhances ease-of-use by presenting an in-context user interface. In addition, the web-based interface is designed for the business user to define the exception resolution directly into the same tool that is leveraged by IT to provide the technical hooks to execute the process resolution.

**Many Means of Exception Capture**

Unlike the existing products, Vitria’s Exception Management Solution enables you to capture exceptions from web services, enterprise applications (e.g. SAP), log files, databases (e.g. Oracle), and messaging middleware (e.g. JMS) using various adapters. This helps resolve exceptions across your entire enterprise, not just within a specific application, and speeds implementation and time to value.

**Policy-based Exception Classification and Resolution**

Vitria’s Exception Management Solution enables Business Analysts to define policies that classify the incoming exceptions and can invoke a full range of resolutions from automated to assisted. These policies are stored in the Model and Knowledge Repository where they can be organized, searched, and discovered. This increases resolution consistency and accuracy.

**Model and Knowledge Repository**

Vitria’s Exception Management Solution provides a centralized repository to capture knowledge formally in models that are both human- and machine-readable. It supports dynamic capability for changes of the business process models. The Model and Knowledge Repository reduces the time required to implement process changes and promotes knowledge sharing across business and IT users.

**Comprehensive Visibility into Exception Management**

This next generation solution provides operational staff and managers with rich Web 2.0 views of the exception status and the history across the entire lifecycle of the exception process and resolution. This enables end-to-end visibility into process status, faster identification and correction of systemic problems, and greater control over resolution activity.

No other offering on the market today provides complete support for a holistic exception management process.
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Figure 4: Comparison of Vitria’s Exception Management Solution vs. other approaches

The ability of Vitria’s Exception Management Solution to address the needs of good exception management removes one of the most significant impediments to putting true business exception management in place: the lack of appropriate tool support as highlighted in the figure above.

Empowering Your Business

Business exception management poses a significant challenge for businesses today, one that has considerable direct and indirect costs and potentially serious impacts on profitability and competitiveness. In the past, managers seeking to address the problem of exceptions have been required to integrate several approaches that each solved a portion of the problem, but that did not support a true end-to-end business exception management process. With the advent of Vitria’s Exception Management Solution, a purpose-built solution for business exception management, support for a robust business exception management process finally exists. Managers seeking to improve the performance of their initiatives and businesses should add the creation of a robust business exception management process to their current activities.

If you would like further information on exception management, please visit www.vitria.com to access the Insurance & Technology webinar entitled “Risk Management Means End-to-End Visibility and Control of Exceptions.”

Vitria is ready to help you begin the journey towards best-in-class exception management. We can help with the development of an exception management vision, value assessment, and detailed implementation roadmap. For more information please contact Vitria at insurance@vitria.com, or (877) 365-5935.

About Vitria

Vitria Technology, Inc. is the industry’s leading privately-held BPMS and integration technology company. The company has a rich heritage as a pioneer of BPM that spans more than a decade. Vitria’s award winning process integration solutions provide the backbone for many Global 2000 companies’ mission-critical business processes. Vitria has customers in North America, South America, Europe, Asia, and Australia.
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