CASE STUDY

Major North American Gas unit helps to drive safety improvements and improve financial recovery with Supplier Performance Reporting

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The SPR tool has helped identify over 130 non-compliance incidents in the first eight months alone and its usage trend is increasing. It helps both the client and its suppliers improve their processes and procedures to become both safer and more efficient. It has helped explain the root cause of over 2,000 hours of non-productive time at a potential estimated cost to the client of over $3.5M.

Our client's North American Gas unit needed a system to catalogue and facilitate the resolution of supplier performance issues. The tool was required to act as a place where users could log incidents, where suppliers could respond to them and where dialogue between the two could be tracked and stored in a centralized location. NAG needed to catalogue, by supplier and product line, each incident and then track them through to resolution using a custom workflow and role based security model.

Before Altius developed a Supplier Performance Reporting tool, NAG used selective, decentralized methods to track and resolve non-compliance issues. They decided the situation could not continue and decided to invest in developing a solution. Altius Consulting, a Microsoft Gold Certified Partner firm, worked closely with the key stakeholders to understand the requirements and proposed a web based solution with Microsoft SQL Server™ 2005.

Client Profile

Country: United States
Industry: Oil and Gas

Overview: Our Clients North American operations provide most of their U.S. natural gas volume. Their natural gas resource base in the lower 48 and Canada has grown by more than 30% in the last three years through a focus on renewal. They currently operate around 35 drilling rigs and 60 service units.

Business Situation: Our client's North American Gas required a new system to handle the logging, review and tracking of non-compliance issues through to resolution. The system had to be accessible to both internal client staff and external suppliers spread in many different geographical locations.

Solution: Altius Consulting — NAG's consulting partner for this important project—recommended a web based front-end built with the Microsoft .NET Framework with Microsoft® SQL Server™ 2005 as a database.

Benefits :
- Allows the root-cause analysis on incidents.
- Tracks non-compliance incidents through to resolution.
- Allows data capture from both internal client users and external suppliers.
- Built using standards extensible toolset.
- Better reporting interfaces.

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Situation

North America Gas (NAG) logs all well drilling and completions time, but did not consistently track specific non-compliance issues and the root-cause of non-productive time effectively. The management team realized that by tracking all incidents they could reduce supplier costs and improve safety and efficiency.

The solution had to allow for the capture of issues in a quick and easy manner from various remote locations in the form of a Supplier Performance Report (SPR). The key information has to be validated and in many cases choices provided from existing master data to limit data capture errors.

Once captured, the external suppliers assigned to the SPRs had to be notified and provided with a method to review and respond to them after further investigation. A custom workflow would then guide the SPR through to resolution after all the necessary dialogue between the client's SPR originator and the external supplier.

The final requirement was to expose the captured data in reports to easily identify performance trends for suppliers and business units over time. They needed to answer questions such as ―What issues are occurring most, in what location, with which product line and supplier?‖, ‖How much is this costing us?‖, ―What is the impact on our operations because of this non-compliance issue?‖ and ―How many hours of non-productive time did it cause?‖

After gathering all the requirements, Altius chose a Microsoft technology web based solution leveraging the proven advantages of the SQL Server™ 2005 database and BI stack and .NET platform technologies.

Solution

The interface used to capture SPRs has to be web based, with forms based security for external supplier users, as this enabled non-compliance issues to be raised from any geographic location with an internet connection.

The data capture form was designed by the key business stakeholders and was made as automated as possible. For example, selecting a specific client organization asset where the incident occurred would limit the selection of suppliers who worked in that area, and in turn, selecting a supplier displayed the available key contacts at that organization to assign the SPR to.

After an SPR was raised, an email notification was sent to the supplier containing details of how to respond. A custom workflow was designed to move the SPR between various states until a client representative agreed with the suppliers suggesting a course of corrective action to resolve the issue. Once resolved, the SPR was closed out. After the root-cause issue had been identified, cost recovery and suitable process changes from both sides can be identified to benefit everyone and improve safety standards and operating efficiency.

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Reporting was managed with SQL Server™ 2005 Reporting Services that enabled a 'management pack' of reports to be quickly generated. The reports could then be run on-demand with live data, emailed to other users or exported to PDF or Excel all from the built-in web interface.

Security was controlled by roles based on the intersection of the client Organization and Supplier and Service Line hierarchies, providing extremely granular control. Once live, the entire solution could be managed by the client's administrators themselves, reducing ongoing support costs.

Benefits

Perform Root-cause Analysis on Incidents

By capturing all non-compliance issues in the new workflow driven application, it forces root-cause analysis to be carried out on each incident. This makes suppliers more accountable where appropriate and helps lead to cost recovery. Identifying consistent repeating failures leads to changes in policies and working practices that lead to greater efficiencies and a safer working environment.

Track Incidents Through to Resolution

The web based application and associated workflow means that no incidents can go un-accounted for. In addition, if suppliers do not respond within certain pre-defined time limits, based on the importance of the SPR, the system will automatically send reminder alerts and help all incidents to be closed out in a timely manner.

Allow Data Capture from both Internal Client Users and External Suppliers

The web based data capture form means that anyone can access the SPR application in a single central location from wherever they are based. Forms based security, combined with assigned roles, enable external suppliers to login, view and respond to only the SPRs they are authorized to see.

Built Using Standard Extensible Toolset

The use of the Microsoft based platform combining recognized and standards-compliant enterprise software such as the Microsoft SQL Server™ BI stack and .NET ensured that extensibility and support could continue for years to come with many changes managed by end users. Integration with other applications leveraging similar technologies could occur with minimal additional cost and effort.

Better Reporting Interfaces

SQL Server Reporting Services provided the platform to produce parameter-driven tables and charts. Rather than producing an individual report for each new reporting requirement, a standard report template could be developed and data parameters passed to it. This made development and maintenance of reports quick and easy. The data is always live and available on-demand.

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About Altius

Altius helps companies better understand the data that drives their organizations. We are practitioners who have personally managed successful Business Intelligence initiatives. From this, we have developed a suite of products that helps you save time, reduce errors and quickly execute projects. At the end of the day, we help you make intelligent business decisions from your data.

Altius has the experience of over 500 project implementations, spanning companies in oil, gas, energy and utilities. Altius is head-quartered in Houston, Texas with a second office location in Anchorage, Alaska.