



CASE STUDY London Stock Exchange Regulatory News Service (RNS)



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📄 📑 New 📑 Test Conversion 🛛 🤮 Refresh 🛛 🕼 Replace 📄 View 🖤 Approve 🕔 Repe				
Showing 1 - 10 of 10 announcements				
	RNS Number	Company	Headline	
	7133A	Allicance Boots Limited	AGM Statement 2008	
	79 96A	BG Group Limited	Capital Reorganisation - Q4 2008	
	9662A	BAE Systems PLC	Annual Report and Accounts 2008	

BACKGROUND

RNS is the Regulatory News Service division of the London Stock Exchange and is the market leader in the distribution of corporate financial information to the world's financial markets. RNS Submit is the tool used by listed companies to pass information into the RNS news distribution network and on to the investment community.

In May 2008, RNS and the London Stock Exchange replaced its existing "thick client" version of the RNS Submit product with a new "thin client" web browser based version.

RNS manages more than 70% of the UK's listed company communications to the market. The challenge was to replace an existing service that was already widely recognised as "best of breed", with a new offering that would be even better.

Priocept was appointed by the London Stock Exchange to meet this challenge and redevelop the new generation RNS Submit application. Priocept was responsible for developing all the core product functionality used by end users (listed companies), working in collaboration with both the London Stock Exchange's internal technology team and with Accenture, who were responsible for implementing the back-end network and processing infrastructure that would support RNS Submit.

SOLUTION

Replacing an existing electronic service will always involve investment in technology and platforms. Making the correct technology investments is a challenge at the best of times, but for the London Stock Exchange the challenge was magnified, as many priorities of equal standing all needed to be met, from operating under the highest level of data scrutiny and security, to providing both the most intuitive and most sophisticated service offering to the world's financial markets and listed companies.

The technologies behind the new product were selected to make use of the greatest asset of RNS: a deep knowledge about how its customers communicate with their investors and regulators. The reworking of the RNS service created an opportunity for real technical innovation to make this dialogue more effective.

Document Conversion

The news announcements that companies use to communicate to the financial markets contain both text-based commentary and complex financial reporting in table form. So they are a complex mix of both structured and unstructured data. And for the most part, no two announcements are the same in layout, format or content.

Quickly and reliably converting a large throughput of documents, input in a wide array of formats, including Microsoft Word documents, into a structured web based output format (XHTML), was a key challenge of the project. A conversion engine had to be designed that allows for an announcement document to be uploaded straight from a user's PC, and regardless of format or layout of the upload, converts the content into a set of output formats that can be streamed across a wide range of financial news channels and easily viewed on the many different terminal devices used by investors. Priocept designed and developed a high performance, highly parallel document conversion system that uses a serviceoriented architecture (SOA) approach to provide distributed document conversion services, across a large farm of servers located within the London Stock Exchange data centres.

Document Editing

A common request of existing RNS customers was the addition of improved WYSIWYG ("what you see is what you get") editing functionality to the new product. This would allow an announcement to be perfected before publication, and to provide certainty that an announcement would appear on the screen of an investor or analyst exactly as it had when the announcement was reviewed and approved for publication.

Development of WYSIWYG editing features appeared to be in conflict with the desire to move away from a rich-client Windows based application towards a pure web-based solution. However, using sophisticated and newly emerging "client-side" or "in-browser" technologies, Priocept was able to develop features comparable to most modern word processors, within a web browser environment, and with no requirement for the end user to install any desktop software.

Announcement Publishing and Workflow

With the document conversion and editing problems solved, Priocept combined these components of the architecture into the actual end product used by RNS customers, by building a web based application that manages the creation, editing, review, approval and publication workflow that is followed for every regulatory announcement.

Complex multi-stage, multi-user workflows are supported within a browser-based submission and management tool, with auditing at every step in the process. The result is that RNS now offers a service that can be embedded deeply into a company's existing business processes – RNS Submit is accessible from anywhere on the internet yet offers tight control of the distribution of share price sensitive information, with comprehensive security controls and a clear audit trail for its users.

RESULTS

The new RNS Submit provides a step change in the quality of communication between listed companies and their investors: it is more effective for companies and investors alike and provides tools that make the dialogue far easier to manage for both sets of users.

Key features of the new product include:

- The whole of the RNS Submit service is now delivered via the internet
 as a pure web browser based application.
 This reflects the change in how individuals
 and companies expect to use the internet
 to seamlessly access business services.
 With the use of advanced web based
 technologies, complex functionality can
 now be delivered in an online environment,
 with no need to install proprietary desktop
 applications and yet no detrimental effect
 on the user experience.
- Customers can submit their announcements in the source Microsoft Word format, meaning that no pre-conversion or prior editing is required and announcements can be submitted straight from its "native" business format. The RNS system manages the conversion of information submitted by users, regardless of formatting or layout.

- A variety of output format types are supported. From the standard RNS
 Market News XHTML format (Infolect)
 to other formats used in the financial markets or by other regulators such as
 MarketWire, Edgar and SEC Filings.
 The new RNS Submit system turns input data into formally structured "market-ready" output, supporting whichever financial market you wish to communicate with and supporting whatever devices are used by the investor to view it.
- Incorporating the latest in security software and best practice implementation ensures company information is completely confidential prior to its release to the financial market. By fashioning RNS Submit as a "software as a service" (SaaS) application, companies can interact with their submissions or edit them right up to the point of public release in a totally secure online environment. A high level of security does not have to equal inflexibility.
- Online account management and archiving of previous releases have been added. Historically only a communication channel, RNS Submit has added the ability to manage a compliance audit trail and thereby integrates itself more deeply into the customers' business processes.

"This was a challenging brief, as we wanted to radically improve the presentation of UK corporate regulatory news and allow the issuer to retain full control over how their information was presented to the investment community. The system Priocept were tasked with developing had to be fast, easy to use and provide an editable output that accurately represented the source document. The response from our customers to the new system has been very positive and has helped RNS retain the position of premier Regulatory Information Service in the UK market."

Paul Rennison

Head of Business Development for RNS London Stock Exchange



TECHNOLOGY

" The redevelopment of RNS Submit represents a significant advance in providing the most effective financial disclosure tool for companies and their advisers. Our team of architects, software engineers and testers worked tirelessly to ensure that the London Stock Exchange and their customers get the most intuitive, powerful and robust system possible.

Taking a service-oriented architecture approach, we have been able to seamlessly integrate our new document conversion engine and submission management tool with existing back-end London Stock Exchange systems, and deliver a product that combines very rich functionality on a thin client web browser platform with virtually unlimited scalability and exceptionally high availability. "

Matthew Skelton Technical Director Priocept

Priocept developed the RNS Submit software application using the following technologies:

- Windows Server 2003
 Enterprise Edition
- Microsoft .NET framework and C# versions 1.1 and 2.0
- SQL Server 2005 with Mirroring
- SOAP Web Services
- Saxon XSLT processor with XSLT 2.0
- Selenium, NUnit and WebLoad automated testing tools

The system was architected to support the conversion and submission of at least 100 announcements per second, but allows virtually unlimited horizontal scalability.

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