

PBusiness-to-Business Story

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1.

Warning:

Due to certain client confidentiality requirements we may not be able to mention them, or provide specific information about techniques used.



B2B Story

2. Project Overview

In "Resizing Online Business Trade", Forrester Research of Cambridge, Mass. predicts that B2B e-commerce will hit a total of \$1.3 trillion by 2003, accounting for 9.4% of total U.S. business sales. In this report, Varda Lief, a senior analyst at Forrester specializing in e-commerce, says business-to-business transactions will far surpass business-to-consumer deals and dwarf giants like eBay and Amazon.com in revenue and sales.

"Business-to-business is the stuff that makes everything run," says Lief.

Our client, a holding company of numerous Gas Local Distribution Companies with over \$20 billion in assets and revenues in excess of \$6.031 billion, was in need of a streamlined process to accept gas nominations from Gas Marketers, aggregate these nominations into their existing legacy Gas Management System, and post them to their pipeline partners for transport into their service territory.

Furthermore, the [Federal Energy Regulatory Commission \(FERC\)](#) had previously set into motion legislation mandating the LDC's ability to conduct business in a B-2-B fashion providing for equal access and competition.

Our project objective was to provide a secure [GISB](#) (now NAESB) style FF/EDM business-to-business integration services connecting an EDI Application Service Providers (ASP) to their existing legacy and "xtra-net" processes.

3. Solution

Following such industry bodies at the Gas Industries Standards Board, we developed a secure HTTP message gateway which implemented the server side of a GISB FF/EDM gateway. First, we evaluated several Java based encryption packages. The GISB specification calls for a public/private key pair exchange. Also, the message body of the transaction is encrypted by the sending party, thus enhancing the security already provided by secure communication channels such as SSL.

Next, a Java HTTP Messaging framework was designed and installed. This framework adheres to the GISB FF/EDM server specifications and provide for transaction restart and auditing. Specific transaction handlers were created to process the variety transactions.

Concurrently, a "Command" design pattern was developed and retrofitted into the existing legacy architecture. This provided seamless integration to the legacy Powerbuilder application and application server C processes.

Finally, test cases were created and implemented.

Once the basic processes were up and running, there was little to no effort required to add trading partners from multiple LDCs. The client now uses these services to manage nearly all of its major Gas Nomination transactions.

Upon FERC mandate, this existing framework was leveraged in a browser based scenario, thus providing a robust data exchange mechanism to smaller marketers and trading partners.

Technologies used to complete these objectives were:

- HTML/CSS/JavaScript
- Java™ Servlets
- Java™ custom objects
- Cryptix Encryption Package
- IBM WebSphere Advanced Server
- Netscape Enterprise Server on AIX
- C on AIX
- OOA/OOD
- UML
- XML