

Challenge

Telecom NZ, a major telecommunications provider with a full range of services covering internet, data, voice, mobile and fixed line calling services, was in need of a robust, three-way operational separation as legislated by the NZ Government's Telecommunications Act.

As part of the separations undertakings, Telecom NZ was to show Equivalence of Input through the provision of an electronic trading facility between Telecom Retail, Wholesale and Chorus divisions and their trading partners.

Solution

Telecom NZ engaged IBM to undertake the design and implementation of the front-end mechanism that will directly interact with trading partners. The backend systems as well as a Self Service Portal were being re-architected using an SOA approach by in-house teams. IBM engaged eBlueprint to provide the specialist architecture and design skills needed for this project.

Using components such as IBM WebSphere® Partner Gateway and IBM WebSphere® ESB, combined with industry standards like ebXML (ebMS2.0), eBlueprint developed an architecture that will allow the Telco and its partners to interact with each other, while at the same time, be able to prove to the government that no partner has been given any priority over any other.

The proposed solution used ebXML/ebMS2.0 as the transport protocol standard for transactions between partners. The ebXML message contains an XML payload that conforms to the (Shared Information and Data Model) TNZ-SID standard. The use of standards prevents vendor lock-in and allows the trading partners to develop their own systems to interact with the Telco without having to use the same vendors or products. The ebXML standard also provides additional capabilities around authentication and authorization of transactions.

The solution was completed within government timeframes without the need for extensions.

Result

IBM WebSphere® Partner Gateway was chosen as the main component of the B2B Solutions that was exposed to the trading partners. All transactions into and out of a trading partner was mandated to go through a Partner Gateway instance. The role of the gateway was to authenticate the transaction and extract the XML payload for further processing.

Following the SOA approach, the payload was placed on an Enterprise Service Bus (WebSphere® ESB) for validation and further routing to the correct backend system for processing. The standards based approach was proven by successfully on-boarding a number of trading partners utilising different implementations of the ebMS2.0 standard.



Services Provided:

- Integration Design
- Framework Architecture
- Integration Implementation
- Managed Services
- Ongoing Support

Products Utilised:

- IBM Web Sphere Partner Gateway
- IBM WebSphere Enterprise Service Bus

Standards:

- Service Oriented Architecture (SOA)
- Shared Information and Data Model (SID)
- ebXML/ebMS2.0

Key Features:

- Standards Based Approach
- Split responsibility between gateway and ESB allowing easier management and maintenance of systems
- Transactions are handled irrespective of who the partner is, providing equivalence of input.

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