Bell Canada and Thoughtcorp Develop a New Material Handling System to Improve Customer Experience and Increase Revenue

Customer Profile
Bell Canada provides a wide range of advanced telecommunications services to consumers, small and medium-size businesses and large enterprises. Bell TV, one of Bell Canada's key product brands, provides the highest quality and most comprehensive direct to-home (DTH) services across the country.

The Business Problem

Bell TV's Logistics team is responsible for issuing replacement equipment to Customers and Retailers, and recovering defective and disconnected equipment. They managed these activities with the RMA (Return Material Authorization) system, which was developed in 2005.

The RMA system was used by the Call Centre, Logistics and BDI teams to create RMA requests, and these requests were fulfilled by a third party that managed the replacement and recovery of equipment requests, and billing for any charges and credits to the customer's account.

Due to the instability of the previous RMA system, the Logistics team faced many challenges. These included recovering defective and disconnected equipment from customers Retailers and Vendors, providing Billing with the accurate instructions to charge and/or credit customers, and replacing customer's equipment to resume services in a timely manner.

With today's competitive market, Field Operations not only needed to resolve these challenges quickly, but also wanted to discover new ways to manage their forward and reverse logistics.

The Solution

Thoughtcorp worked with Bell TV to design a new system named BARRT to meet the current and future needs of the Logistics team. The Oracle/BEA SOA Reference Architecture was implemented in order to create a consistent vision of SOA while maximizing agility, interoperability and reuse.

Technology Used
- BEA WebLogic
- Oracle 9i Database

Highlights of the solution include:
- Creation of a dashboard to provide improved visibility to health of both the BARRT system as well as downstream transactions.
- SOA Monitoring through creation of a dashboard user interface to provide improved visibility to health of both the BARRT system as well as downstream transactions.
- Improved integration with billing system to reduce billing errors (i.e. multiple credits/charges).
- Real-time integration with services to remove equipment and rental charges.
- Integration with the Warranty Service to obtain real-time warranty info within BARRT.
- Integration with the Location Management Service to validate shipping addresses.
- Well-defined canonical message types with the service provider as a part of EAI for improved reliability and data integrity.
- Clearly defined business processes as a shared business services layer in the middle tier (instead of the presentation or backend data tier).
- Extensive use of Event Driven Framework to trigger the business processes with business events.
- Ability to expose business processes using web services, and use of WLI for defining the business processes (JPDs).

Bell

Thoughtcorp

The Solution

The BARRT system was built using BEA technologies.

BEA WebLogic Portal technologies are used for the user interface and user experience management. BEA WebLogic Integration is used to manage the business processes. BEA controls are used for managing communication and external service usage including DB access, JMS access and web service access.

Business processes use BEA WLI. Process modelling and automation is handled by the framework. WLI tools for EAI and Integration services are utilized where appropriate. Data transformations are regularly used considering integration complexity of the application. The persistence tier utilizes an Oracle 9i database.

The system was launched in Q4 2008 to over 3,000 call centre agents, technical service representatives and Logistics team users.

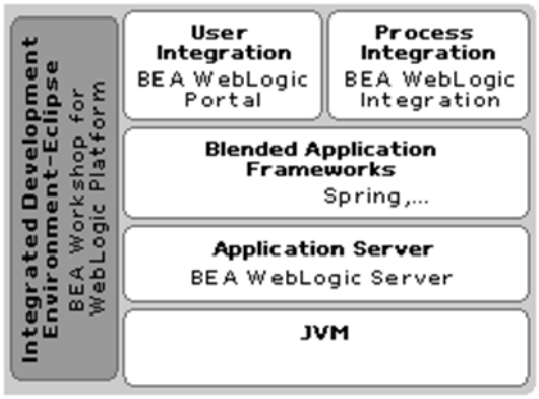

Figure 1: Technology alignment diagram

Figure 2: Business process technology alignment diagram

The Result

The BARRT solution delivered by Thoughtcorp has drastically improved the reverse logistics process for Bell TV by:

- **Reducing the number of calls into the call centre** to investigate and correct RMA related billing errors
- **Reducing the number of calls into call centre** by automatically removing rental charges once a receiver is returned
- **Improving warranty compliance** by integrating with the warranty service
- **Reducing shipping and processing costs** associated with multiple shipments due to invalid “ship to” addresses
- Increasing **data integrity** of the data received from the service provider
- Better **visibility** to the Reverse Logistics process via the dashboard