# BTI CANADA USES FIORANO ESB FOR RECONCILIATION OF FINANCIAL DATA AND BUSINESS ACTIVITY MONITORING IN THE TRAVEL INDUSTRY

*"In addition to minimizing accounting errors, BTI uses Fiorano ESB monitoring capabilities for tracking the accountability of the 140 travel counselors at various call centers located in Canada."*

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## CUSTOMER PROFILE

BTI Canada is the Canadian partner in Canada for Business Travel International (BTI), the world's largest organization of travel management companies. BTI Canada's divisions include its corporate travel management division, a leisure travel service called Travel Escapes, Bravo Meeting Management Solutions and GTS (Government Travel Service). BTI Canada combines its 12 offices in Canada with BTI's network of 3,000 offices in 80 countries to offer solutions that maximize opportunities for global leverage while responding to unique local needs.

## BUSINESS PROBLEM

BTI Canada is the second largest Travel Agency in Canada, providing corporate travel services to major organizations including the Government of Canada. Other lines of business include Loyalty Program Management, Meeting Management, Online Fulfillment Services and Knowledge Management. A year ago, BTI Canada started to provide travel services in support of a significant Loyalty Program. End-users calling into make travel reservations had to have the ability to pay for tickets based on accumulated points – as opposed to miles for some other loyalty programs. The deployment of this loyalty program required special workflows to be implemented across the Booking, Accounting and ticketing departments at BTI Canada, to ensure that all transactions were logged and accounts reconciled easily.

Transaction tracking was complicated by the fact that a travel counselor making a reservation can purchase various travel products through at least three mechanisms:

   (a)  From within SABRE (Global Distribution Systems) through BTI Canada's Booking Application
   (b)  Directly into the Tour operator mainframes with the same Booking Application
   (c)  Through third-party travel websites like www.travelocity.com

The request for each reservation flows through three departments – Booking, PNR Validation and Ticketing - before final confirmation and ticketing. Various business rules had to be applied to ensure proper tracking. For instance:

- The Booking is made through the SABRE reservation system or directly with the Tour Operators, in which case the tracking information was stored on the Tour Operators reservation system.
- The Booking is done through third-party web-sites by the travel counselor using the BTI Canada Internal Charge Cards (referred to as "Ghost cards"); in such instances BTI Canada did not have a comprehensive mechanism to track which travel counselor did which booking, or to consistently check the financial commitments made by each travel counselor.

The lack of consistent accountability of travel counselors to supervisors for financial commitments made, as well as the difficulty of tracking transactions was proving to be a serious problem as more and more travel counselors were using third-part web-sites for making bookings. This in turn resulted in financial inconsistencies among various systems across the Booking, Accounting and Ticketing departments. The project raised interesting challenges for the organization, both in terms of technology & processes.

### Internal Systems

- Applications written in various languages from 4GL to Visual Basic to Java
- Various kinds of databases and accounting systems
- SABRE (Central System hosting 35% of all travel reservations booked worldwide)
- Point transactions (redemption, void) & Cash charges to track and manage
- Complex processes from Booking, Ticketing, Point & Cash transaction fulfillment, financial reconciliation, reporting
- Real-Time communications with Business Partners over the Internet
- The Loyalty Program has 3 sub-programs, each with different set of business rules

### Call Centers

- Track reservations from a "customer stand point":
- Is the ticket issued on time for the customer to travel?
- Is the payment in Points and Cash calculated correctly?
- When a client cancelled a trip, how was it done?
- Are all tickets voided?
- Are all invoices voided?
- Is the client credit card credited back?
- Is it a partial refund?
- Are all Point Redemption voided?
- Are the transactions settled already (different process)?
- Track counsellor performance
- Know in Real-time the amount of reservations made by each office

### Accounting Systems

- Finance needs to Ensure the accounting systems are kept up-to-date.
- Track all financial transactions (Point and Cash).
- Know in Real-time the Cash-Balance

### IT Department

- Interfacing the new data with existing legacy databases and back-end applications
- Cost and development time

Finally, our customer needs customized reports with various combinations of data for all the systems and clean reconciliation Feeds

## SOLUTION

- XML in general & Fiorano ESB specifically were key to the success of the project
- BTI Canada worked in Phases, prioritizing sub-projects based on their time to market and the measurable benefits they would bring to the business
- BTI Canada used Fiorano ESB to monitor existing processes and track operations performed on charges and PNRs. This choice brought immediate business value by creating accountability for the travel counsellors as well as tracking financial transactions in Real-Time
- The approach was non-intrusive and involved only minor changes to existing applications. The applications would simply notify Fiorano ESB of the completion of their task for each charge and PNR through a basic HTTP POST
- Time-to-Market was short and risks linked to modifying large chunk of code was removed
- The system was designed and written by BTI Canada's Technical Architect Sebastien Flacher and consultant Laurent Michalkovic

### a. Charge Workflow implemented as a Fiorano ESB Application

BTI Canada's first Fiorano ESB Workflow enabled them to track commitments made to their internal cards by the travel counsellors in Real Time BTI Canada built XML configuration files listing the Credit Card

numbers to watch for and made the booking applications parse these files Each time a card usage is detected BTI Canada captures the current screen or web page as well as the next 2 so that they will be able to track back who the booking was for and how much was spent. All this is placed into an XML document and sent to Fiorano ESB through a "ChargeListener" running as a servlet on a web server Chargelistener Fiorano ESB Service - It receives the XML messages sent by BTI Canada Booking applications (Custom 4GL application and/or customized browser). LogActivity1 Fiorano ESB Service – It is responsible for tracking whom and when a charge was created (Ghost Card used).  It simply dumps data into a database "log". In this case, BTI Canada mostly logs Travel Counsellor Activity to build accountability. ChargeWorklist Fiorano ESB Service – BTI Canada needed to gather all the incoming messages into one Fiorano ESB service so that their business users could verify them one by one (through a web page) and eventually validate each of them. They therefore defined a new Component called a Worklist. A "Worklist" is a servlet running on a J2EE web server and acts as a "message accumulator". The Accumulator is queried through an XML API over HTTP. The XML API allows building customized Web pages to hide XML details from the users.   Users can then verify the accuracy of the data, make comments and changes and finally let the message go to the next task. Here is a "Business User Interface" with the list of charges recently captured by BTI Canada booking applications and sitting in the worklist:



LogActivity2 Fiorano ESB Service – This service once again checks the messages and tracks who and when the previous operation was performed.  In this case, BTI Canada logs QA people and supervisors responsible for verifying the accuracy of the information entered in the system. The messages are finally
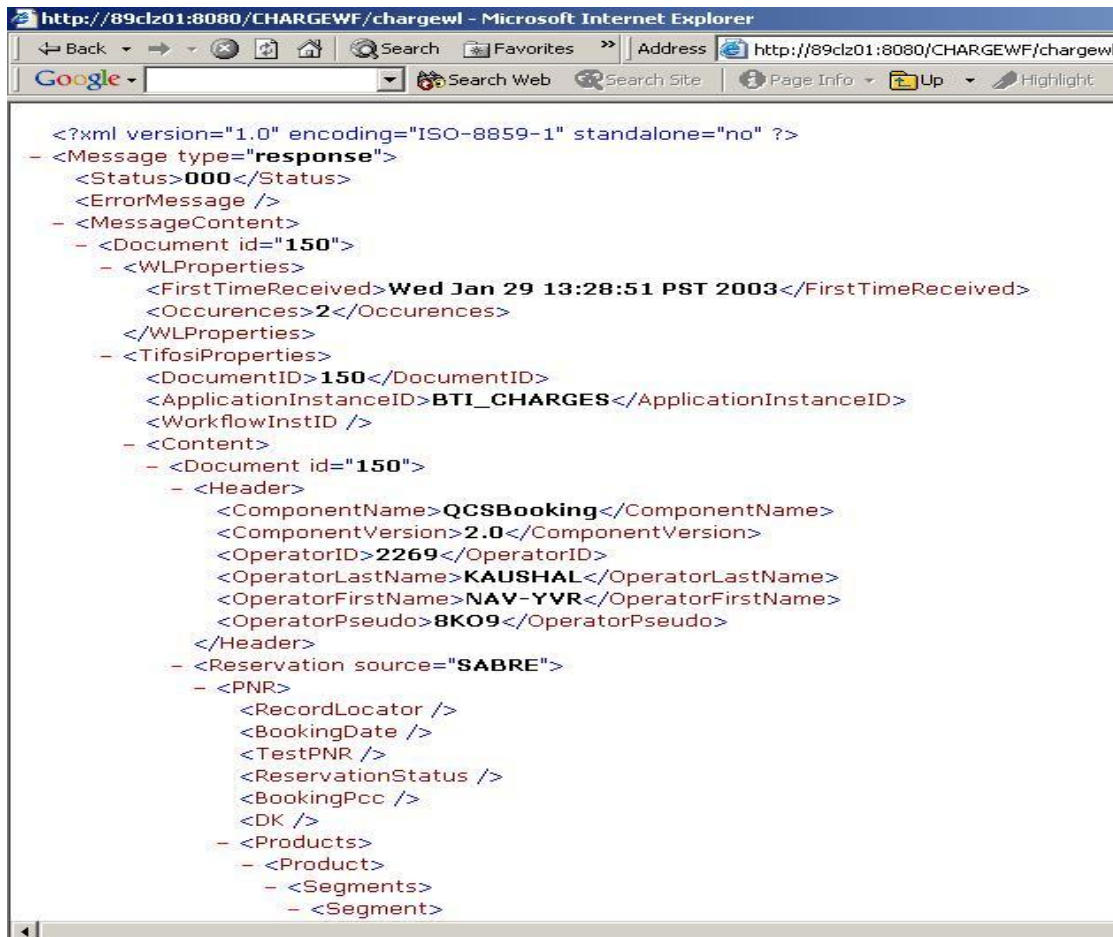
dumped into a database for reporting purposes. Further reporting web pages were build for Finance and BTI Canada Call Center Division. Once again, changes to BTI Canada applications were very easy to achieve. Download the list of credit cards, capture 3 screens (terminal screens or web pages), build an XML message and send it to the "ChargeListener". To handle errors BTI Canada attached mail and display components to each RDBMS. In Adapters ON_EXCEPTION out port. This way the system administrator will be notified as soon as the Database link encounters any problem. This functionality will be later added to our custom made Fiorano ESB Components. In this first Phase, Fiorano ESB is not used to perform processing but simply to monitor the work being done by Travel Counsellors and Applications. This none-intrusive approach provides a great value by simply reporting inconsistencies within existing Business Processes.

### b. Booking Workflow implemented as a Fiorano ESB Application

BTI Canada's second Workflow is not implemented yet but will enable BTI Canada to track Bookings in Real Time

• Changes to our applications: BTI Canada simply added enough code to each application so they could build XML messages from a template and HTTP POST it to some services of the Fiorano ESB workflow. Overall, these were minor changes

### c. Sample of a Document sent to Fiorano ESB by the booking Application

## BENEFITS

BTI Canada provides travel services to a range of corporate customers, customizing solutions according to unique needs. One of its largest customers offers a comprehensive points-based loyalty program. BTI Canada's three departments Booking, Accounting and Ticketing were using applications that were developed as departmental solutions. There was no way to check the consistency of various financial transactions for reconciliation purposes at any given point of time. The problem of tracking accounting errors was compounded by the fact that these applications were running on different platforms and were written using varied programming languages. BTI Canada solved this problem by using Fiorano Enterprise Service Bus (Fiorano ESB) to track commitments made to their internal credit cards by their travel counselors in Real Time. In addition to minimizing accounting errors, BTI uses Fiorano ESB monitoring capabilities for tracking the accountability of the 140 travel counselors at various call centers located in Canada.

## ABOUT FIORANO SOFTWARE

Fiorano Software (www.fiorano.com) is a leading provider of enterprise class business process integration and messaging infrastructure technology. Fiorano's network-centric solutions set a new paradigm in ROI, performance, interoperability and scalability. Global leaders including Fortune 500 companies such as Boeing, British Telecom, Credit Agricole Titres, Lockheed Martin, NASA, POSCO, Qwest Communications, Schlumberger and Vodafone among others have used Fiorano technology to deploy their enterprise nervous systems.

To find out more about how Fiorano can help you meet your enterprise integration objectives, visit www.fiorano.com or e-mail sales@fiorano.com