

## IBM Client Reference



# *Immigration & Checkpoints Authority*

**Synopsis:** *A border security organization in Singapore achieves industry compliance and rule governance and improves efficiency when it implements IBM WebSphere and IBM System z software to provide a reliable and flexible business rule management platform for its new integrated border system*

**Location:** Singapore, Singapore

**Industry:** Government

**URL:** <http://www.ica.gov.sg/>

### **Client Background:**

The Singapore Immigration & Checkpoints Authority (ICA) was formed in 2003 and protects and secures the country's borders against entry of unwanted cargo and people. Using checkpoints for travel by land, air and sea, ICA also performs immigration and registration functions, such as issuing travel documents to its citizens and providing immigration permits to visitors.

### **Business Need:**

Immigration & Checkpoints Authority (ICA) had its checkpoints broadly divided into three groupings: people, conveyance and cargo clearance. People and conveyance clearance were supported by three different systems, with interfaces to biometric systems and other ICA screening systems. System A facilitated people clearance at the checkpoints, screening and clearing travelers manually at counters staffed by security officers. System B authenticated travel documents and included a repository of selected genuine passport images that could be viewed by ICA officers to perform direct visual comparisons. System C facilitated conveyance clearance by capturing images of vehicles and extracting license plate numbers from the images for validation.

ICA wanted to replace these separate systems with an integrated border system and

enhance its clearance processes with the following capabilities:

- A traveler-centric clearance model that seeks to identify, capture and store information based on the traveler, instead of travel-document identifiers such as passport numbers or disembarkation/embarkation numbers
- Traveler risk assessment and profiling, which will subject the traveler information to a series of risk-assessment rules and generate a consolidated risk score, which will then be used by ICA officers to determine clearance
- The ability to assess travelers' past travel records readily.

ICA also wanted to achieve the following objectives without compromising security:

- Enable officers at the various checkpoints to achieve seamless clearance of people, conveyances and cargos
- Deploy new and proven technology solutions and best practices to support current and new operational needs
- Provide holistic information on the movement of people, conveyance and cargo through the checkpoints

ICA needed an effective, flexible and reliable business rule management system (BRMS) to easily implement and coordinate business rules for its new integrated border system.

### **Solution:**

ICA implemented IBM WebSphere ILOG Business Rules for z/OS software as its BRMS platform for the integrated border system, along with IBM WebSphere ILOG Rule Team Server and IBM WebSphere ILOG Rule Solutions for Office software. The client's new integrated border system is a traveler-centric system that provides integrated clearing functions to help ensure that the movement of people, goods and conveyances through ICA checkpoints is legitimate and lawful.

WebSphere ILOG Business Rules for z/OS software provides externalization and automation to the integrated border system, along with decision support for key points, including screening and risk assessment. It also provides a simulation environment based on decision validation services to allow ICA to perform "what if" analysis simulations.

WebSphere ILOG Rule Team Server software - along with Microsoft Word and Microsoft Excel software supported by WebSphere ILOG Rule Solutions for Office software - provides ICA intelligence and security officers with the ability to enter screening criteria and risk-assessment business rules on their own.

### **Benefits of the Solution:**

By implementing IBM WebSphere and IBM System z software, ICA gained an effective, flexible and reliable business rule management system (BRMS) to easily implement and coordinate business rules for its new integrated border system.

IBM WebSphere ILOG Business Rules for z/OS software provides ICA with the most comprehensive rule management and governance capabilities, allowing the client to maintain, govern, track, deploy and even roll back its screening and risk-assessment rules as needed. The solution empowers ICA with rich and flexible rule representations such as business rules, decision tables and decision trees. This allows the client to automate even the most complex screening and risk-assessment rules in its business operations.

The solution also helped ICA achieve the following objectives:

- Compliance with local laws for the movement of people, goods and conveyances through Singapore checkpoints
- Accuracy and granularity in screening and targeting decisions
- Agility to respond to new threat patterns
- Governance of policy formulation, review, approval and deployment