Canada Border   Agence des services
Services Agency   frontaliers du Canada

May 2019

To Whom It May Concern:

Assurety Consulting International Corp was appointed to conduct a Data Assessment engagement for several months in 2019, under a collaboration of Canada Post Corporation and Canada Border Services Agency. Canada Post Corporation and CBSA both wanted to implement a risk-based data driven program to identify cross border threats and to protect revenues – ultimately, the approach aims at protecting the Canadian economy and Canadians citizens.

The objective of the engagement was to conduct statistical analysis on postal data and to develop the capability to apply machine learning predictive models to detect threats.

Both organizations intended to jointly pursue creation of a data model to improve throughput by identifying high risk goods, while releasing what is considered low risk. This engagement was to determine the business value of the data and if it is viable to create a predictive model from several external databases that will enable CBSA to target high risk goods based upon package content data sent in advance of package arrival.

The scope of engagement included viability assessment of Six (06) datasets; More specifically;

- Conduct an inventory of data sets currently generated in relation to the postal importation of goods that are or can be of use to the CBSA in predicting fraud in the postal importation stream.
- Conduct an analysis of the current Vancouver postal data sets to validate the business value.
- Identify data attributes and rules to develop algorithms that will support the effectiveness of indicators
- Present a model that can identify gaps where additional data could be used in predicting fraud in the postal stream.

In a short span of time, Assurety not only assessed the data but also transformed cleansed and restructured the datasets provided by Canada Post and gathered additional datasets related to Crime, Education, Population and Drug Abuse. In addition, they were able to develop a positive dataset for suspicious packages utilized for improved data analysis and future model development.

Using an open source technology stack, Assurety controlled the cost of the engagement and exhibited their data and statistical analysis capabilities, yielding actionable outcomes and provided quantifiable benefits that can be achieved from this data assessment project as well as identifying additional data sources for the model CPC/CBSA seek to develop.
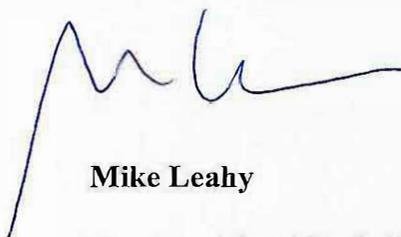
What impressed me the most is their domain awareness of the postal environment –there was literally no ramp up time required; they have seen this problem space before. In addition, their ability to rapidly assess what additional datasets could be used to achieve the outcomes was

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creative and unrestricted. They developed a means to translate Chinese language to English for processing sender and receiver's address data and developed a central repository including all the mentioned datasets in a very short time. This repository can be used immediately to analyze existing data, add more data sources and initiate model development such as machine learning and predictive and prescriptive models.

Throughout the engagement their communication with us was exemplary and we are thoroughly impressed by the work performed and the comprehensive assessment report delivered by Assurety.

I offer a high recommendation for Assurety – without reservation. If you have any questions regarding this engagement or recommendation, please do not hesitate to contact me.

Sincerely,

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