Commonwealth Association of Tax Administrations
2017 Technical Conference
Background paper: Using Technology Effectively to Ensure Reporting Compliance at
the Canada Revenue Agency

The Canada Revenue Agency (CRA) has been working to strengthen its use of
technology and data to increase its return on investment in ensuring reporting
compliance. Over the next five years, the Agency will be investing in additional tools
to improve business intelligence, exploring existing and new sources of data for tax-
at-risk and developing new techniques to encourage compliance and to reinforce
compliance activities when required.

Who are our taxpayers and what do we know about them?
The CRA has access to a wide variety of sources of information about our individual
and corporate taxpayers, some provided by the taxpayers themselves and some
received through third parties such as employers or registered charities. Information
provided by taxpayers is screened and may be subject to further review via the
matching program, which matches taxpayer data against information provided by
third parties. Information is mapped against our selection algorithms and may be
flagged for further review or risk assessment.

Like most tax administrations, the CRA has agreements with other levels of
government and other countries to receive and share information, and we also
purchase some information from third party vendors. We use this data in identity
resolution, a process that maps information received about taxpayers to the
information the taxpayer has provided to create new business facts. Much of the
information we receive is unstructured or imperfect, so we have invested in new
identity resolution tools to help us match the data and to determine a confidence
level on the quality of the matched information.

Identity resolution tools are critically important as we go forward. Using them, we
will be able to identify related parties in large business entities, trusts, and
corporations and identify fictitious business entities at the stage where they apply for
tax credits instead of after the credits are received.

Identifying Risk in Taxpayer Populations
The Agency continually runs risk assessment algorithms against business facts through
the National Risk Assessment System. These algorithms are developed and updated on

an ongoing basis by combining program expertise, statistical review, and monitoring of outcomes. As new information streams come on board, risk assessment algorithms are updated or created to include the new information source and new risk issues are associated.

A recent example of this is the Agency's investment in identifying electronic funds transfers in and out of the country of more than $10,000. As this data comes in, the Agency uses identity resolution tools to map transfers (potential income and expenses) to actual taxpayers. Risk assessment algorithms are then run against that data to identify files of high, medium, and low risk for tax compliance.

The Agency then uses human intervention to review the highest risk cases in further detail, reviewing the information in our existing systems to determine if the case will proceed to a compliance intervention. Compliance activities could include an automated letter, a request for books and records, or a full audit.

All of the largest businesses in Canada are subject to a full automated review and risk assessment, with specialist screeners reviewing results to determine the need for and level of compliance intervention. For other taxpayer populations, files are automatically reviewed as the taxpayer submits information to the CRA; compliance interventions are determined based on a combination of risk assessment and business strategy.

The National Risk Assessment System also risk scores value-added tax credit applicants before a credit is issued, enabling the Agency to stop automatic processing. Over the next several years, the Agency will be investing in conducting compliance risk assessment earlier in the process, at the filing stage and even earlier, such as during registration for a Business Taxpayer Identification Number.

The National Risk Assessment System is supplemented by a number of other tools that facilitate experimental data exploration, including the ability to bring in new third party data and identify potential linkages and new risk issues, and to explore multiple unstructured data sets for potential new areas of risk.

Screeners and statisticians doing research within our Business Intelligence teams use the intelligence from the National Risk Assessment System to create cases for auditors or other specialty teams for nudge letters, compliance letters, or other interventions.

Using technology to facilitate audits and communications
We have transitioned our traditional audit workload to a fully automated system that enables the auditor to: review all taxpayer-submitted data and other information on the taxpayer in CRA databases; receive books and records online; communicate with the taxpayer electronically and securely; store all working papers and formal communications within an digital audit file; make adjustments to the taxpayer's file as a result of the audit; and, send it for an automatic reassessment. Five years ago, this was done through a combination of paper files and electronic systems. Today, we can conduct the entire compliance intervention online, without ever printing a document or licking a stamp.

To increase transparency and timeliness, taxpayers or their representatives can access all final documents, from proposal letters to reassessments, via a secure portal 24/7, 365 days a year.

What's next?
The CRA has made significant investments in technology in the past few years to ensure reporting compliance. From investments in identity resolution to risk assessment, from automation of forms and elections to replacement of core databases, the Agency is advancing in the quest to get the right information to identify high risk files with the most return on our investment across taxpayer populations.

As we move forward with bringing on new data streams like those generated by the OECD's Common Reporting Standard, new tools, techniques, and risk issues will be identified. The Agency is evaluating ways to automate low value, low risk components of compliance interventions, such as compliance letters and records checks, in order to free up our human capital for higher risk, higher reward activities. The combination of data, tools, and people with experience, knowledge, and skills will enable the CRA to continue to demonstrate leadership in compliance.