

## Disambiguating taxpayer identity information throughout the network of public and private providers



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### Highlights

- **Anonymize taxpayer personally identifiable information for information sharing and protecting their identity and privacy**
- **Build on existing investments to optimize investment in skills and infrastructure**
- **Implement a robust name, identity relationship resolution capability across internal and external tax and revenue agency functions and network partners and providers**
- **Create an innovate real time tax intelligence solution that aids in detecting potential non-compliance, revenue losses and to ensure tax compliance**
- **Share resolved identity and relationship information across providers anonymously**
- **Use proven IBM technologies and techniques to implement**

### Strategic Issues

Today's tax agencies typically lose 15 percent or more of total revenues to tax evasion and other types of non-compliance –known as the 'tax gap.' In the midst of these significant challenges, revenue agencies are simultaneously evolving, embracing and driving the evolution of a more sophisticated tax services network.

### Taxpayer provider network use case scenario

Revenue agencies orchestrate the provision of tax products and services through a network of public and private providers. Many revenue agencies are finding it extremely challenging to coordinate and ensure taxpayer name and identity information is accurate to ensure that proper tax compliance occurs. The providers include the revenue agency and its agents.

- Tax agency services eg disclosure office: provide inherently governmental core tax services and selected specialized core competencies
- Other governmental entities: eg social service administration. Work with tax agency to provide inter-governmental services to tax payers and their agents to improve accuracy, reduce burden and increase compliance
- Government contractors and utilities: eg tax systems integrator.

- Build specialized tax administration tools and utilities that improve the effectiveness and reduce the cost of tax administration. Utilities, such as intergovernmental filing and payment platforms, would reduce duplicative expenditures and streamline compliance
- Employers eg banks. Produce, manage and share electronic records of tax-related transactions for use by all authorized participants throughout the stages of the tax life cycle, including maintaining electronic records portfolios for taxpayers, providing essential records to the tax agency on request and automating payment transactions and other compliance events
- Tax Practitioners eg tax preparers. Furnish a full range of tax services, supported by industry value providers and the Tax Agencies, enabling taxpayers to transparently satisfy tax obligations and resolve tax-related issues that reduce Tax Agency resource demands and decrease taxpayer burden
- Industry value providers eg tax software providers. Develop innovative technology and services for private sale that streamline tax administration and decrease taxpayer burden

### Why Now?

Today's intensifying tax agency challenges mandate a fresh approach to managing tax compliance and fraud information.

- Multiplication of fraud types, frequency, complexity and interconnectedness of people and organizations
- Fraud is increasingly asymmetrical

- Explosion in complexity of fraud identification
- Frequency of transaction/interactions
- Transparency is clouding
- Regulatory pressures are increasing
- Intensifying budget and tax revenue pressures
- Customer centric approach

### Current Approaches have become obsolete.

- SSN and/or EIN are no longer reliable as the sole means of identification and linkage to other taxpayers
- Information is compartmentalized – lack of full integration is obscuring visibility
- Query state limits ability to address complexity of fraud - you need to know the right question to ask
- Untimely – fraud identified ex-post facto.
- Inaccurate – broadscale false positives and false negatives
- Out of context – lack of decision support/guidance once fraud is identified

### IBM Tax Compliance Intelligence

IBM Tax Compliance Intelligence is a powerful, sophisticated solution that can be used and configured to meet a given agency's particular compliance needs:

- Provide real time non-compliance 'alerting' as an integral part of: tax event management, compliance assurance, relationship management, revenue management and case management functions
- As a query based tool to discover identities and visualize relationships across different information sources

### Tax Event Management

Tax event management leverages industry specialization to reduce transaction processing costs by integrating and automating the name recognition functions. This includes:

- Recognizing multi-cultural name variations eg. Kate, Cait, Catherine, Katherine, Kat
- Name order
- Multiple titles
- Name variants
- Multiple prefixes
- Phonetic transpositions
- Nicknames

Name recognition creates a context accumulating name repository as a valuable reusable resource.

### Compliance Assurance

Automated tax compliance assurance drives shared ownership of early detection and remediation of errors, evasion and fraud. IBM Tax Compliance Intelligence helps improve the compliance process by reducing duplicate names and businesses. Our experiences shows this can be as high as 50%.

Tax agencies need to determine if a tax payer of interest i.e are they 'good' or 'bad' ideally prior to any revenue underreporting and underpayment. And if the tax payer is deemed 'out of compliance' should they be focused on and pursued. A primary reason is to establish the degree of risk associated with noncompliance. Then decide what to do and what resource(s) should be applied to the case. With IBM's tax intelligence we:

- Provide full attribution with a complete history of a tax payer and never throw away data about them
- Real time updates and self cor-

recting to provide a current and a more accurate view

- Assemble , integrate and analyze data in real time, from internal and external data sources and lists

*Internal:* DMV, voter, employment, business licenses, other

*External:* OFAC , law enforcement, FBI watch list, other

#### ***Relationship resolution:***

- Compare addresses, phone numbers, e-mail addresses and any other characteristics across multiple individuals
- Leverages every identity attribute for multiple linkage points
- Make connections or discover linkages between unique identities

#### ***Finds multiple degrees of separation in relationships***

- Extend the recognition of undeclared affinity groups, networks of identities across customers, employees, suppliers, other involved people
- Evaluate relationships (the sensitivity is user-definable) well beyond a single degree and near limitless degrees of separation
- Multiple degrees of separation relationship insight eg. person A knows person B, and person B knows person C. The three are related by two degrees of separation

#### **Taxpayer Relationship Management**

With IBM's Tax Compliance Intelligence integrated with taxpayer relationship management, you automate the resolution of taxpayer identity and relationships for more accurate, targeted and individualized services and compliance programs.

#### ***Establish identities in context and while it accumulates***

- People
- Organizations

#### ***Link personally identifiable information attributes between identities for analysis***

- Names
- Addresses
- Social security numbers
- Telephone numbers
- Other

#### ***Reveal relationships that exist between client, organizations***

- Obvious, non-obvious

#### **Revenue and Performance Management**

With IBM's automated real-time, streaming ingestion and analytics capability we help revenue and tax agencies obtain deep insight into taxpayer behaviors and patterns.

- Performs all analytics at ingestion on data streams from both internal and external data sources for real-time discovery

#### ***Full attribution***

- Every row of data retains its pedigree

#### ***Persistent context***

- Received data is reconciled to historical holdings and persisted

#### ***Reconcilable***

- Real-time processing of adds, changes and deletes from source systems

#### ***Self-correcting with sequence neutrality***

- New data corrects previous outcomes improving accuracy over time
- The database end-state is the same despite the arrival order or timing of the data
- Identity information is perpetually updated, with each transaction and update made instantaneously

#### ***Analysis of any attribute***

- Every attribute of an entity is indexed and can be searched

#### ***Auditing***

- When applied at the time a tax return is filed, the system can promptly identify compliance problems, helping save years of tracking, investigation and collection costs

#### **Case Management**

IBM's Tax Compliance Intelligence enhances your case management function to perform check and balances to examine case / claims processed according to rules and approval process.

#### ***Full attribution resolution***

- Retains all relevant records and accumulates a history for better accuracy
- More data with which to make comparisons

#### ***Multiple views***

- All records are retained to support multiple views of an individual rather than the conventional single view.
- Supports every version of the truth about individual identities

#### ***Real time changes***

- when a record is received immediately compared with its database to see if it: (a) resolves an existing record, (b) is new and requires the creation of a new record (automatically), or (c) requires an un-resolve of an existing record in which case, two new virtual consolidations will be created automatically

#### ***Sequence neutral***

- Doesn't matter in what order records are presented

## Privacy Protection

We automate the anonymization of personally identifiable attribute information about taxpayers so that when information needs to be shared with other organizations, it can be to protect the privacy of individuals and meet local privacy laws and guidelines.

Information about tax payers is needed to successfully follow up on leads and process cases by the tax agency. The Information is usually provided by a tax payer themselves and does not itself represent privacy issue. Difficulty arises if elements of information are combined in ways that reveal more about a person's private life than intended. Sometimes privacy protections are an inhibitor to good tax compliance and service. Tax payers may be willing to allow privacy information to be shared if asked and to their benefit if they provide consent.

### *IBM's anonymization technology allows n data holders to share anonymized identity-based data*

- All identities are managed and correlated while in their cryptographic form
- More secure and privacy-enhancing way to resolve identities and discover relationships of particular interest

### *Support client service delivery*

- Citizen consent and choice

## Proven tools and techniques

IBM has invested significant resources in Tax Compliance Intelligence to bring together a range of tools and techniques all specifically designed to enhance the implementation of integrated tax case and risk management solutions for tax agencies.

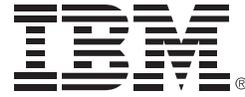
### **A solid foundation: World class technologies from IBM**

IBM is one of the largest providers of solutions to government agencies around the world. The IBM Tax Compliance Intelligence is built upon:

- IBM Global Name Recognition: recognizes names across multiple cultural variations
- IBM Identity Resolution: identities 'who is who'
- IBM Relationship Resolution: identifies 'who knows who'
- IBM Degrees of Separation for Relationship Resolution: identifies relationships across multiple degrees of separation
- IBM Anonymous Resolution: allows multiple organizations to share identity and relationship data anonymously that never exposes the identity of an individual

### **For more information**

To learn more about these solutions, please visit: [ibm.com/db2/eas](http://ibm.com/db2/eas) or contact your IBM sales representative.



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