Creating Intelligent Data

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https://actiac.org/DATAAct

https://www.agacgfm.org/DataActHub
# DATA Act Webinar for Government Agencies

## Agenda

<table>
<thead>
<tr>
<th>Topic</th>
<th>Speaker/Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introductions/Review of Webinar #1</td>
<td>Herschel Chandler, Information Unlimited</td>
</tr>
<tr>
<td>Update on the DATA Act</td>
<td>Christina Ho, Treasury</td>
</tr>
<tr>
<td>DATA Act Deliverables for the Non-Technical</td>
<td>Neeraj Gupta, Consumer Financial Protection Bureau</td>
</tr>
<tr>
<td>Implementation Considerations – Getting DATA Act Ready</td>
<td>Jeff Steinhoff, KPMG</td>
</tr>
<tr>
<td>CPE Questions</td>
<td></td>
</tr>
<tr>
<td>Mapping to Existing Agency Systems – FDIC Case Study</td>
<td>Mark Montoya, FDIC</td>
</tr>
<tr>
<td>Validation &amp; Data Quality – FDIC and SEC Case Studies</td>
<td>Mark Montoya, FDIC, Michelle Savage, XBRL US</td>
</tr>
<tr>
<td>CPE Questions</td>
<td></td>
</tr>
<tr>
<td>Summary and Q&amp;A</td>
<td>Herschel Chandler, Information Unlimited</td>
</tr>
</tbody>
</table>
Update on the DATA Act

Christina Ho, Deputy Assistant Secretary, Accounting Policy and Financial Transparency, U.S. Department of the Treasury
Neeraj Gupta, Business Solutions Lead, Consumer Financial Protection Bureau
Technical Approach: Step-by-Step

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<tbody>
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<td>There are 57 required data elements for the DATA act (plus the currently reported elements on USASpending). The IAC has published the definitions for them. Identify the location and state of the 57 elements within your agency.</td>
<td>The data elements need to be provided in the schema format. A draft schema has been published on GitHub. The format needs to be the simplest lift for agencies.</td>
<td>Data will be provided to Treasury on a regular basis. At this stage, information will be merged in from central data sources (like SAM.gov). The methods for “providing” will be described on GitHub</td>
<td>The data will be published on USASpending.gov The information will be made available online as a website, API, and bulk download.</td>
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**Validation Tool**

A resource will be created centrally to check the schema and data quality for testing and production

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DATA Act Broker Pilot Links

Broker Pilot Code and Assets
https://github.com/18f/data-act-pilot

Story Board:
https://waffle.io/18f/data-act-pilot

Data Exchange Standard:
http://fedspendingtransparency.github.io/data-exchange-standard/

Full video of the screencast:
Jeffrey Steinhoff, Executive Director, KPMG Government Institute, and Managing Director, KPMG Government Advisory
In the words of Thomas Jefferson:

“Whenever the people are well-informed, they can be trusted with their own government.”
Movement to the DATA Act

- CFO Act of 1990
  - Publicly-available, audited annual financial statements
  - Systematic measurement of performance
  - Development of cost information
  - Integration of budget, program, and accounting systems
- Federal Funding Accountability and Transparency Act of 2006 (FFATA)
- The American Recovery and Reinvestment Act of 2009 (ARRA)
  - USASpending.gov
  - PaymentAccuracy.gov
  - Performance.gov
  - Data.gov
  - Recovery.gov
- Digital Accountability and Transparency Act of 2014 (DATA Act)
Federal spending information from different systems and reporting streams will become consistent and comparable and of greater value for decision-making and oversight.

A common data format and built-in analytic tools will help integrate various systems with spending data and drive improved data quality and value in analysis for waste, fraud, and abuse within the framework of existing data systems.

Common data elements will unite information from different systems and reports.

The flow of federal funds from appropriation to account to expenditure will be publicly available on USASpending.gov in a machine-readable format.

Checkbook-level payment data will be available. The flow of federal payments will be searchable by agency, appropriation, account, object class, grant/contract, and grantee/contractor in a machine-readable format.

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Are government organizations ready to effectively respond to the DATA Act?

Benchmark questions
Can you say yes to these benchmark questions?

As your organization gauges readiness and develops strategy to implement the DATA Act, consider these questions as an initial benchmark.

**Collaboration**

- Are you proactive in sharing insights and solutions as data standards and other requirements are formulated?
- Are you focused on going beyond basic compliance to broader transformational change in how the public receives spending information?
- Have you developed day-to-day working relationships with Treasury and OMB, fellow federal agencies, and state and local governments?
More Benchmark Questions

**Data**

- Does your data contain the common data elements that enable unique identifiers for federal awards, entities, grantees and contractors?
- Are your unique identifiers consistent with federal data standards?
- Can you assess what data is relevant and where it needs to come from?
- Can you link DATA Act information with your financial statements?
- Is your data accurate and complete for all funds, object classes and other required reporting elements that make up “360-degree” reporting?
More Benchmark Questions

**Technology**
- Are you able to efficiently and effectively obtain data?
- Do you have analytic tools to enable data-centric reporting?
- Do you have appropriate information security?

**Business Strategy and Governance**
- Are you innovative, looking beyond basic public reporting to how spending information can be used for improved decision-making and oversight?
- Have you evaluated gaps in data sources?
- Do you have a validation process to continually ensure your data can withstand an independent audit?
- Do you have a communications strategy — in-house and with stakeholders?
- Have you developed a proactive working relationship with your inspector general?
**Process**

- Do you have processes to ensure required data is accumulated, processed and reported on time and accurately?
- Do you have the necessary business rules to adjust to Treasury’s and OMB’s data standards and subsequent refinements?

**People**

- Do you have people with the right skills to analyze budgeting and spending information and to map your data in accordance with required data structures and standards?
- Do you have the right personnel to lead the implementation effort?
- Are they fully empowered to work seamlessly across the agency’s organizations and programs?
- Do you have DATA Act training programs?
Mark Montoya, Senior Business Lead, FDIC
Key Process: Mapping to Agency Existing Systems

• Call Report
  • Key foundational components
• Financial Item Mappings
  • From collection to aggregation
• Call Report Re-use
  • Downstream application development
Call Report Components

• Report Forms
  • Presentation of two financial reports
  • Report instructions

• Data Quality Checks
  • Validation formulas

• A Common Sets of Financial Items
  • Shared between FFIEC agencies
Foundational Aspects

- Micro Data Reference Manual
  - A dictionary of micro and macro data collected from financial institutions

- Data Series + Financial Item
  - Bank Holding Company Report + Total Assets
  - BHCK + 2170 (BHCK2170)

- Used in Backend Systems and Databases
  - Used for collection, analysis, aggregation and distribution
Mappings for Agency Systems

• Data Extracts
  • Shared system for extracts
  • Common dictionary

• Inter Agency Data Exchange
  • Common standard for data exchange

• Corporate Databases
  • Common dictionary used in backend systems
Used Throughout Internal Processes

• Collected data
  • FFIEC reports
  • DFA collections

• Distributed data
  • Software vendors
  • Agencies

• Aggregate data
  • Quarterly bank profile
  • Analysis for industry conditions
Call Report Financial Data Re-use

- Web Services
- Enterprise Architecture Service Broker
- Examiner Toolkit Suite
Validation & Data Quality Case Studies
Key Process: Validation and Quality

- Call Report
  - Framework and structure
- Data Validation
  - Process for collection and analysis
- Data Quality
  - Additional guidance and rules
Call Report

• Structured Financial Report
  • Balance Sheet and Income Statement
  • Sub schedules

• No interpretations
  • Bank cannot add to additional financial items

• Explicit instructions
  • Defined set of guidance
  • ......Bank and analyst correspondence
Data Validation

• Regulatory Reporting Software Vendors
  • Incorporate Call Report rules in software
  • Testing and review process

• Financial Institutions
  • Bank level data validation
  • Data must pass prior to submission

• Central Data Repository
  • Data quality checks applied again
  • Reports rejected not passing validation
Quarterly requirements sent to software vendors.

Submitted report validated again with notifications emailed directly to banks.

Data validation prior to official submission based on FFIEC reporting requirements.
Data Validation Detail

• Data Quality Checks
  • Validity
  • Quality

• Reportability Rules
  • Based in Financial Institution’s prior and current financial and structure information

• Same Data Validation Criteria
  • Vendor software
  • Central Data Repository
Data Quality

• Bank in charge of own data quality
• Validity data checks must pass prior to submission to CDR
• Quality data check failures must be accompanied with text explanation
• Second level validation happens at the CDR system
Case Study: SEC Validation

Michelle Savage, VP, Communication, XBRL US
Validation Case Study: SEC Reporting

SEC mandated public company reporting in XBRL format in 2009

“...intended not only to make financial information easier for investors to analyze, but also to assist in automating regulatory filings and business information processing.”
Validation Case Study: SEC Reporting

Situation:

• The US GAAP standard allows for substantial flexibility
  • Unique items can be reported
  • Presentation in HTML can vary
  • Textual footnotes contain values

• XBRL US GAAP Taxonomy is large
  • 20,000+ elements
  • Interrelationships within reporting items
 XBRL Validation

Professional Services Providers
Business Reporting Rules

- Corporate Issuers and Preparers
- Accounting & Audit Firms
- Filing Agents & Financial Printers

Data Quality Rules
SEC EDGAR Filer Manual Rules
Specification Validation

Accurate Content & Interpretation
Data Consistency

SEC Acceptance

XML Validation

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XBRL Validation

Professional Services Providers
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- Corporate Issuers and Preparers
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- Filing Agents & Financial Printers

Data Quality Rules
SEC EDGAR Filer Manual Rules
Specification Validation

XBRL SPECIFICATION VALIDATION

- underlying XML specification for XBRL
- component of XBRL standard, developed, maintained and funded by XBRL International

Established and maintained by Standard Setter
XBRL Validation

Professional Services Providers
Business Reporting Rules

- Corporate Issuers and Preparers
- Accounting & Audit Firms
- Filing Agents & Financial Printers

Data Quality Rules

SEC EDGAR Filer Manual Rules

Specification Validation

Established and maintained by Regulator

EDGAR Filer Rules

- Syntax and business rules
- Many syntax rules can be automated
- Rules related to document entity information
- Rules cover structure of document

The national consortium for the business reporting standard.
Examples of EDGAR Filer Rules that can be automated

6.3.9 Filers must use one of the taxonomies as specified on the SEC website as their standard taxonomy.

6.5.21 An instance must contain one non-empty fact for each required Entity Information element, each with a contextRef attribute referring to a Required Context. The value of an EntityPublicFloat fact in an instance will be 0 for an entity that has only public debt.

<table>
<thead>
<tr>
<th>Element</th>
<th>Base Type</th>
<th>(Example)</th>
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<tbody>
<tr>
<td>EntityRegistrantName</td>
<td>xsd:normalizedString</td>
<td>General Example Company</td>
</tr>
<tr>
<td>EntityCentralIndexKey</td>
<td>dei:centralIndexKey</td>
<td>0005551212</td>
</tr>
<tr>
<td>EntityCurrentReportingStatus</td>
<td>dei:yesNo</td>
<td>Yes</td>
</tr>
<tr>
<td>EntityVoluntaryFilers</td>
<td>dei:yesNo</td>
<td>No</td>
</tr>
<tr>
<td>CurrentFiscalYearEndDate</td>
<td>xsrli:gMonthDayItemType</td>
<td>--12-31&quot;</td>
</tr>
<tr>
<td>EntityFilerCategory</td>
<td>dei:filerCategory</td>
<td>Large Accelerated Filer</td>
</tr>
<tr>
<td>EntityWellKnownSeasonedIssuer</td>
<td>dei:yesNo</td>
<td>Yes</td>
</tr>
<tr>
<td>EntityPublicFloat</td>
<td>xsd:decimal</td>
<td>987654321</td>
</tr>
<tr>
<td>DocumentFiscalYearFocus</td>
<td>xsrli:gYearItemType</td>
<td>2009&quot;</td>
</tr>
</tbody>
</table>
| DocumentFiscalPeriodFocus      | dei:fiscalPeriodItemType   | FY, Q1, Q2, Q3, Q4, H1, H2, M9, T1, T2, T3, M8, CY"
Validation Case Study: SEC Reporting

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XBRL Validation

Professional Services Providers
Business Reporting Rules

Corporate Issuers and Preparers
Accounting & Audit Firms
Filing Agents & Financial Printers

Data Quality Rules
SEC EDGAR Filer Manual Rules
Specification Validation

DATA QUALITY RULES
• unambiguous guidance on how to tag financial data
• freely available, automated validation rules to verify compliance with its guidance and to detect tagging errors

Established and maintained by Industry
Data Quality Validation Rules

- A rule is an assertion that can be run over one or many sets of elements

Examples
  - Certain elements must always be negative/positive
  - Element values are equal
  - Document and entity information dates should match the document period end date
  - Element A must be <= Element B
Results of Validation Stack

Public Company Financial Filings

XBRL Validation
- Data Quality Rules
- SEC EDGAR Filer Manual Rules
- Specification Validation

Accepted by SEC system/regulatory compliance
More consistent
More accurate
Easier for preparer to check their work
Accessing XBRL Corporate Data

APIs can be used to extract XBRL formatted corporate data

Spreadsheets (Excel and Google Sheets) provide company analysis that you can customize

GitHub

xbrlus / data_analysis_toolkit

Repository of resources to access and use XBRL data

60 commits 1 branch 0 releases 1 contributor

Template Documentation

campbellpryde authored 3 days ago

api API Documentation 6 days ago
templates Template Documentation 3 days ago
README.md Readme 7 days ago

data_analysis_toolkit

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Summary

Herschel Chandler, Managing Principal, IUI
Questions?
Ask the Experts ...

- Herschel Chandler, Managing Principal, Information Unlimited, Inc. (IUI)
- Neeraj Gupta, Business Solutions Lead, Consumer Financial Protection Bureau
- Christina Ho, Deputy Assistant Secretary, Accounting Policy and Financial Transparency, U.S. Department of the Treasury
- Mark Montoya, Senior Business Analyst, FDIC
- Michelle Savage, VP, XBRL US
- Jeff Steinhoff, Executive Director, KPMG Government institute, and Managing Director, KPMG Advisory
What’s Next?

• Watch your email for the next sessions to be held in October covering using structured data

• Materials to be sent:
  – Slides and replay archive
  – Glossary of terms
  – XBRL backgrounder
Implementation timeline

- **Initiate a 2 year pilot program to test data standards**
  
  *Est. Date May 2015 – May 2017*

- **IG publishes report on completeness, timeliness, quality and accuracy of standardized spending data**

  *Est. Date November 2016*

- **Report financial and payment information in accordance with government-wide standards**

  *Est. Date May 2017*

- **After pilot program is complete, OMB reports to Congress on its outcomes and successes**

  *Est. Date August 2017*

- **Ensure all data on USASpending.gov conforms to government-wide data standards**

  *Est. Date May 2018*

- **Issue government-wide data standards for federal spending and corresponding guidance**

  *Est. Date May 2015*

- **Issue guidance to all agencies on applying government-wide data standards to all grantee and contractor reporting**

  *Est. Date August 2018*

Related KPMG Government Institute thought leadership

• Are You Prepared to Meet the Challenges of the DATA Act and Open the Door Wider on Government Spending, AGA Journal of Government Financial Management, Spring 2015

• The DATA Act – A Path to Greater Accountability and Transparency for Federal Spending, Journal of the National Grants Management Association, Winter 2015

• Key Considerations in Meeting DATA Act Challenges – Are You Prepared?, KPMG Government Institute, July 2014


• Moving to the Next Stage of Federal Financial Reporting: Bringing Greater Value and Transparency through “Open Government” Reporting, KPMG Government Institute, June 2012

Related KPMG Government Institute thought leadership (continued)

• The CFO Act Turns 20 Years Old: As We Blow Out the Candles, Where Are We Today and Where Do We Go From Here,? AGA Journal of Government Financial Management, Winter 2010


• The KPMG Executive Guide to High Performance in Federal Financial Management, KPMG Government Institute, June 2009


These documents are available at www.kpmginstitutes.com/government-institute
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• For more information: www.kpmginstitutes.com/government-institute
For further information

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