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The Experience of the National Treasury in Brazil

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ABSTRACT

This paper describes the experience of the National Treasury of Brazil as it implemented Project SICONFI, an effort to modernize and improve financial reporting across federal, state and local governments in that country.

It provides a short history of legislation and laws governing financial reporting in Brazil, the impetus for improvement and a technical overview of the use of XBRL GL to meet the objectives of the project.

The paper concludes with a synopsis of the lessons learned from the effort and how the National Treasury plans to use Project SICONFI as the basis for ongoing improvements to financial reporting in Brazil.

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GOVERNMENT FINANCIAL REPORTING IN BRAZIL - CHALLENGES AND OPPORTUNITIES

In the last two decades, there has been a slow but steady march in Brazil towards accounting consolidation and financial transparency at all levels of government. It began in 2000, with the enactment of the Fiscal Responsibility Law (LRF in Portuguese), which established rules for balanced fiscal policies and assets management, as well as transparency in public accounting. The LRF also introduced, for the first time, mandatory Government accounting consolidation, not only for the Federal Government, but also at the state and local government level. Brazil's National Treasury Secretariat (STN) is responsible for government accounting consolidation at all levels and implementing the LRF.

In 2008 the Ministry of Finance published Ordinance No. 184, which formally established accounting guidelines for the public sector. These guidelines aimed at starting the convergence process with international accounting standards being applied to the public sector. Pursuant to the ordinance, the STN has the responsibility to identify the requirements for convergence between international standards and Brazilian accounting standards, as well as for the publication of manuals, procedures and a standard chart of accounts to support the preparation of consolidated financial statements for the Federation. The result was that all legal obstacles to accounts consolidation caused by the lack of a common format to collect the information were removed.

The first version of the Chart of Accounts Applied to the Public Sector (PCASP), the standard chart of accounts used across the whole Brazilian Federation, was published in 2009, together with the second edition of the Handbook of Accounting Applied to the Public Sector (MCASP). Since then, both the PCASP and the MCASP have constantly evolved as a result of discussions and proposals that took place within the technical working groups. The key addition to the PCASP was the standardization of accounts codes and attributes to a level that would allow the identification of intra-Government transactions and their elimination in the process of consolidation of the information. According to current regulation, the deadline for the adoption of the PCASP is December 2014.

In 2010, the Treasury began publishing an annual report known as the National Public Sector Balance (BSPN), a set of financial and budgetary statements that show the economic condition of the Federation as a whole, as well as that of Federal, State and Local Governments. Reporting for the LRF also provides data for the set of tables known as Finances of Brazil (FINBRA), which contains accounting and budgetary information for each entity in the Federation in a unified format. This dual role for the LRF data underscores the law's importance in providing information on the budgetary condition of the Brazilian public sector as a whole; and detailed financial information of States and Municipalities in Brazil.

DATA COLLECTION

Since the approval of the LRF, the National Treasury has utilized the Accounting Data Collection System (SISTN), in order to collect accounting and budgetary data. SISTN is a computerized system maintained and operated by Caixa Econômica Federal (CAIXA), which is a public financial institution with agencies in almost all Brazilian municipalities. This system was designed to collect information by typing data into web forms. Initially, each filing entity had to submit its annual accounts by filling a complete set of tables called the Consolidated Accounting Data Schedule (QDCC). Over the years, SISTN expanded its scope to support the collection of additional reports defined in the LRF: the Summarized Budgetary Report (RREO), the Fiscal Management Report (RGF) and the Register of Credit Operations (COC).

In addition to the outdated SISTN collection system, the National Treasury Secretariat faced a number of issues in data collection and reporting.

First, unlike the fiscal reports described so far, the QDCC is not formally defined under Brazilian law. Its data set is sufficiently granular to be the basis for the consolidation of annual accounts, but its structure does not exactly match the format required by law for the publication of annual financial statements. This makes it difficult to reconcile the two sets of data.

The level of data granularity found in the QDCC, however, is a double-edged sword. While it can provide historical context and is the primary source of data for the important FINBRA tables mentioned earlier, the volume of information makes it difficult to derive aggregate reports.

Due to varying levels of standardization requirements, there also existed disparate levels of detail with in the QDCC tables. Budgetary information was highly standardized through the General Law of Public Finance. Accounting information, represented by the balance sheet and the statement of changes in equity, had a lower level of detail, since the law only standardized the layout of these statements, and not the rules on how to calculate the value of each line item. In order to standardize the content of the reports, the introduction of a standard chart of accounts to represent all the input information in the entities accounting information systems became essential. The fact that a single chart of accounts for the Federation did not exist had a direct impact on the quality of the consolidated information, because it was not possible to identify all financial interrelationships among federal entities that should be eliminated in the consolidated accounts of the Brazilian public sector.

It is in this context of changes in the accounting standards and increased demand for transparency in the information of the public sector that the Public Sector Accounting and Fiscal Information System Project (SICONFI) was started by the STN. Its primary goal is to create a system that enables the STN to collect the information from all Federation entities. Therefore a key requirement for SICONFI is to be flexible enough to represent the different types of reports collected, and also adaptable in order to quickly reflect the continuous changes in the PCASP and MCASP.

SICONFI OBJECTIVES: BETTER PROCESSES, BETTER DATA QUALITY AND TRANSPARENCY

SICONFI has two key objectives:

1. Introducing a modern, efficient way of collecting data, and
2. Improving data quality in the public sector.

A simple updating of the old SISTN system of data collection, reproducing its features and processes, was not deemed sufficient to achieve the first objective. SICONFI had to become a tool able to capture the complexity of accounting, fiscal and statistical reports, as well as their evolution over time. In addition, SICONFI had to enable better reports generation and filing processes for all Federation entities, and improve access and availability for consumers of the information derived from the reports – SISTN made reports available only in PDF format, which complicated processing and handling of the information. In short, SICONFI had to enable easier reports generation processes, the implementation of periodic changes in the reports without requiring changes in the software applications that process them, and transparency in the information at all levels, including the general public.

Improved quality of the public sector information is the second objective of SICONFI, and certainly the more complex to achieve. This complexity is driven by two primary factors. The first is the need to reflect changes in accounting standards implemented since 2008 and the continued evolution of those standards going forward. The second is the move from collection of declaratory reports towards the extraction of information directly from the accounting records of each entity within the Federation.

The reason for this is that no matter how many business rules are added to validate the information, one can never assume error free source data. The reporting entity can simply change the report to meet the requirements, removing certainty that the changes are correctly reflected in the corresponding accounting entries. A well-known expression used in relation to testing of statistical hypotheses applies here: “The more you torture the data, the more likely it is that they confess...” In other words, a perfectly valid report may hide poor data quality at the source. The change of accounting standards in the Brazilian public sector and the introduction of a standard chart of accounts for the entire Federation created the opportunity to address these data quality issues.

The harmonization of accounting procedures is designed to ensure consistency in the way Federation entities record accounting events, and to make them comparable. The use of a unified chart of accounts for all entities provides a common denominator in the creation of the accounting entries and allows the definition of equally unified rules to populate reports and statements. In the next few months, SICONFI will start collecting a trial balance from each entity in the Federation. This trial balance will contain information with the level of granularity and detail required to derive from it all reports and statements of the public sector. This trial balance is called Matrix of Accounting Balances (MSC), it is based on the PCASP and other budgetary information, also standardized, and reflects all accounting entries in a given period of time.

Greater quality in the information collected is a natural consequence of how the MSC will be extracted from the entities' accounting systems. Its level of detail makes typing values impossible, and requires the creation of automated processes of extraction from accounting systems, potentially placing a burden on smaller reporting entities with limited IT resources. After defining the granularity required, the next challenge is the definition of crosswalks, defined as the mappings and filters applied to the MSC to derive reports and statements from it – something that represents an unprecedented achievement in the history of public sector reporting in Brazil, and that only becomes possible because of the introduction of the MSC. Consistently with its collaborative approach to the introduction of changes, the STN shared and discussed the structure of the MSC and of the crosswalks with all the Federation through the Technical Working Groups.

XBRL IN SICONFI

THE PROTOTYPING PHASE

The process of identification of the most suitable open standard to use in Project SICONFI focused very soon on the Extensible Business Reporting Language (XBRL) as a likely candidate, because:

- It features a democratic governance model of elected representatives from a broad range of international jurisdictions;
- It is based on an open standards development model that is freely available for anyone to use;
- There are many successful XBRL market implementations in jurisdictions around the world, providing sources of lessons learned, guidance and best practices.

Since the very beginning of the decision process, the impact that the XBRL technology would have on entities in the Federation was a concern. Despite the global trend and international recognition of the idea of working with open standards, SICONFI is based on the exchange of information between levels of Government that are independent from each other. This means that there is no relationship of hierarchy, supervision or subordination. State and Local entities are required to submit information to the Central Government by law, but that does not come with the authority to impose a format that is more convenient without considering the needs and constraints of the other levels of Government. Minimizing the impact of SICONFI decisions on technology, especially on State and Local entities, would be a requirement to avoid pushback.

This requirement is also driven by the recognition that many of the more than 5,500 municipalities in Brazil have limited human, financial and technological resources. The standard imposed by SICONFI could not become a barrier that prevents smaller municipalities from providing their information to the Central Government.

This is why the decision on the technology standard to be used in SICONFI took into consideration not only the basic objectives of the project – represent reports, business rules and their changes over time, and the ability to collect data at granular level (MSC) as a tool for improving the quality of the information – but also the need to minimize impact on reporting entities.

After an initial phase of discussion and analysis of the existing alternatives, it was decided that the final decision would be made based on the execution of prototypes, specifically designed to demonstrate the level of support for these key considerations:

- Reporting entities must be able to choose to submit the reports or the MSC, in other words the standard must allow the consistent representation of both.
- The standard representation of the MSC must enable the automated generation of the reports.
- The complexity of the activities needed to generate the reports or the MSC, both from a business and from a technology perspective, cannot be an obstacle to submitting the data.

The prototypes were designed to be software agnostic – in other words, to demonstrate how the use of the standard would support each phase of the reporting process using generic and broadly available software tools, as opposed to proprietary software tools designed to support the specific end-to-end reporting process, and only output reports in XBRL or other open data format at the end. This is very important, because a software agnostic prototype demonstrates how open data standards support not only transparency in the publication of the information at the end of the information supply chain, but also, and in particular, greater efficiencies and lower costs in the generation, processing, analysis, and exchange of information at each step along the way. A prototype based on proprietary reporting technology on the other end only shows the ability to publish data using an open data standard. All other aspects of the process are supported through the “black box” of the proprietary reporting technology used, and this is of no value to make an informed decision on the standard itself.

The successful completion of the prototyping phase led to the final choice of XBRL and to the definition of its optimal usage profile within SICONFI. Factors that weighed in its favor were its “fitness for purpose” in supporting the key SICONFI requirements, and the existence of successful international implementations that could serve as examples, in particular in countries that apply the Standard Business Reporting (SBR) model. SBR programs, such as those in Australia and The Netherlands, typically support multiple reports and deal routinely with additions to the scope of the program. Both features were of particular interest for SICONFI. On the other hand, there were still concerns about SICONFI being a pioneering project in the use of XBRL in Brazil. These concerns were overcome, however, by the obvious possibilities of sharing the information collected by SICONFI with other parts of the Government, and also by the abundance of success stories around the world.

THE IMPLEMENTATION PHASE

In terms of support for the key SICONFI objectives described in Section 3, the XBRL standard proved quite beneficial in meeting the first set of objectives, related to the replacement and improvement on the SISTN system. The main benefits derive from the fact that it is a standard optimized to represent all the business information in scope for SICONFI – accounting, financial, and budgetary. Also, the ability to include executable business rules in the XBRL taxonomy that represents the reports greatly reduces the need for incorporation of those rules in software code, and the subsequent need to modify and maintain that code as the rules change over time. This means not only lower maintenance costs, but also greater transparency of the information. By understanding the taxonomy, interested parties gain the ability to understand the SICONFI rules and automatically incorporate them in their systems, or even to extend their functionalities and add new ones. If business rules are embedded in a software application, this is just not possible.

To meet the second goal of improving data quality through the collection of the MSC and the representation of the crosswalks between the MSC and the reports, and consistently with the evidence gathered through the prototypes, it was decided to include the XBRL Global Ledger (XBRL GL) taxonomy in the architecture of the SICONFI XBRL taxonomy. Figure 1 shows the resulting SICONFI XBRL usage profile, where XBRL GL is used to represent the MSC and the crosswalks, and custom XBRL taxonomies represent the reports in scope.

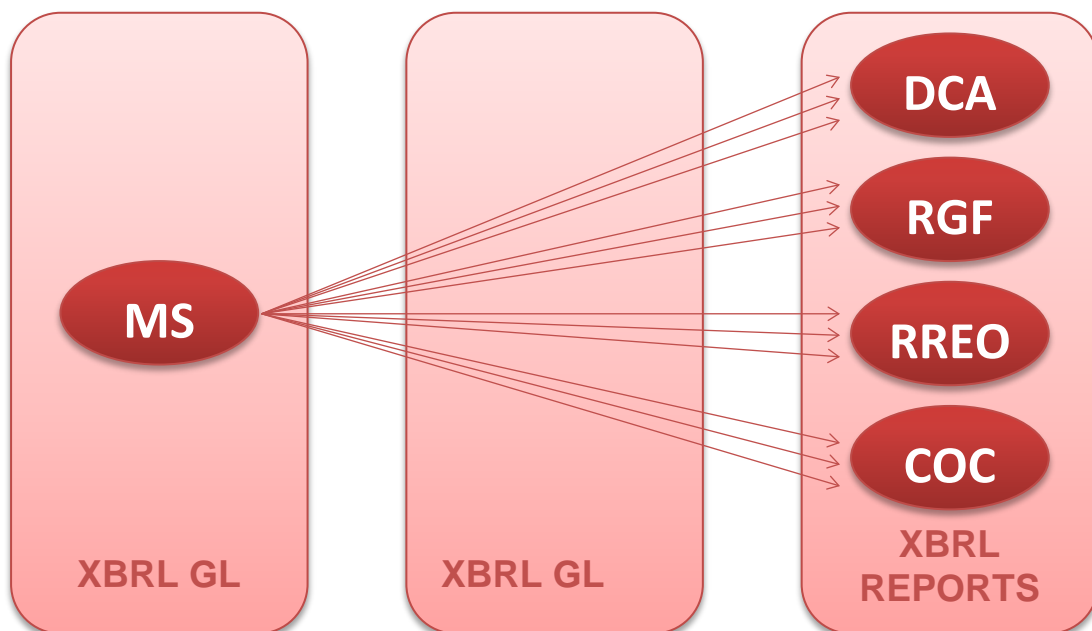


Figure 1 - The SICONFI XBRL usage profile.

The key consideration in this decision was the ease with which entities in the Federation could map data from their accounting systems to the structure of the XBRL GL taxonomy, as demonstrated with the prototypes. Moreover, the implementation of XBRL GL is very similar to that of projects based on XML Schema, which made the use of the MSC within Project SICONFI similar to existing XML implementations in Brazil.

The benefits of using XBRL GL in the SICONFI context are not limited to the ease of generating and collecting MSC data. The existence of a standard chart of accounts and of crosswalks to derive reports from it provides SICONFI with the opportunity to streamline the information supply chain by taking up the burden of creating and publishing those crosswalks in an executable format, immediately applicable by all regulated entities. This means one centralized effort instead of each entity investing resources on its own implementation. XBRL GL is optimized to support this model through its Summary Reporting Contextual Data (SRCD) module, as proven in the prototyping phase.

It is also critical for SICONFI that the crosswalks between the MSC and the reports, which are discussed and defined by STN together with the Federation and therefore undergo periodic changes, are not rigidly embedded into software code. Representing the crosswalks with XBRL GL makes it possible for the business side of the SICONFI team to take direct responsibility for their creation and maintenance, and for SICONFI to remain flexible to changes in the information in scope - PCASP/MSC, crosswalks, and reports. The XBRL usage profile chosen for SICONFI makes it possible to implement the MSC gradually and flexibly, increasing its complexity as the new accounting standard matures and the ability of regulated entities to provide MSC information increases.

The development of the SICONFI technology platform started in November 2012, and the first reports were received through the SICONFI web forms portal on April 2, 2014. Since November 2014 the program added the ability to submit XBRL instances generated directly by the preparer instead of through the web forms, an important step in preparation for the collection of MSC data.

FUTURE DEVELOPMENTS

The efforts under way to move from collecting declaratory reports to receiving detailed accounting information with the SICONFI project represents in itself a significant step in terms of increased data quality for all users of the information. There are additional benefits for all entities, however, that have yet to be realized. Currently, several Brazilian Government agencies across different government levels collect accounting and financial information from States and Municipalities. Small municipalities commit a great part of their resources to these reporting processes. Information sharing among Government agencies is still in its infancy (or almost nonexistent), leading to discrepancies in the information reported by entities to different agencies, and little capability to compare and explain those differences.

An ongoing initiative within Project SICONFI aims at exploring how to integrate and share the information across agencies. There are at least three agencies in the Federation that collect accounting and financial information from States and Municipalities. At State level, the Courts of Audit require this information with the purpose of control and audit of public spending. STN is promoting a joint effort with the Courts of Audit of three States aiming at sharing knowledge about XBRL and to integrate the information received by SICONFI. The results of this pilot will be exposed to other Courts of Audit as an integration option to SICONFI. These initiatives aimed at improving transparency and quality of the information received by the various Government agencies also drives a significant cost reduction and increased efficiency in the process of transmission of information by States and Municipalities.

CONCLUSIONS AND LESSONS LEARNED

The table below summarizes the key business requirements for Project SICONFI, the corresponding solutions that the Project identified, and the features of the SICONFI XBRL Usage Profile that support those solutions.

Business Requirement	Business Solution in SICONFI	Technical Solution in the SICONFI XBRL usage profile
Replace and improve on the legacy system SISTN		
Efficient and flexible representation of accounting, budgetary, fiscal and statistical reports and of their changes over time.	Definition of scope consistently with requirements.	XBRL is optimized for the representation of business data, multiple global projects efficiently using it to represent different types of reports and successfully managing reports life cycles characterized by frequent and significant change (SBR programs).
Enable better, more efficient reports generation and minimize the implementation cost of the technology for all Federation entities.	Focus on process benefits in presence of limited resources.	XBRL GL enables easy conversion of data from entities' source applications as well as the publication by the regulator of pre-defined, ready to use crosswalks for the automated generation of reports in a standardized, executable format.
Improve access and availability (transparency) of public sector information.	Use open standards for business data representation.	XBRL is the global open standard used for the publication of financial information.
Improve quality in public sector data		
Improve reliability of Federation entities data.	Move from the collection of declaratory reports to the collection of trial balances, which require automated generation procedures and minimize opportunities for "data massaging". Enabler: introduction of the Standard Chart of Accounts (PCASP).	XBRL GL is optimized for the representation of detail information, including trial balances and charts of accounts.
Harmonization of accounting procedures used by Federation entities.	Definition and publication of crosswalks to derive reports from the MSC.	XBRL GL includes a set of elements specifically designed to represent crosswalks between chart of accounts/trial balances and XBRL reports – an existing, turnkey solution for the representation of the MSC and the crosswalks to SICONFI end reports.

Identifying clearly these requirements and creating software agnostic prototypes based on actual data to demonstrate how different XBRL usage profiles supported them allowed to identify the optimal architecture for Project SICONFI, and was instrumental to make the right choices upfront and minimize development and deployment time and costs.

Another key lesson from the prototyping phase was the value of focusing not only on the optimal data representation model, but also and in particular on how that data model supports cost- and resource-effective processes, both from the perspective of the regulator and of the regulated entity.

This focus ultimately led to an architecture including both XBRL GL and custom developed XBRL report taxonomies. The prototypes demonstrated how XBRL GL would enable efficient reports generation processes for preparers and easier taxonomy creation and maintenance processes for STN, while custom developed XBRL taxonomies would provide the rich representational capabilities required for the SICONFI reports.

Experience has shown that the move towards high quality, transparent data is an ongoing process, but through the use of XBRL, the Brazilian National Treasury has positioned itself to take advantage of ongoing developments and trends in this area.

ABOUT THE AUTHORS

The opinions expressed in this case study are the authors' own and do not represent the official position of Brazil's National Treasury.

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