

# **The Roadmap To Successful XBRL Adoption**

## **WHITE PAPER & OVERVIEW**



# The Roadmap to Successful XBRL Adoption

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*Sam P. Selim, Founder & CEO, SQL Power Group*

## **Worldwide demand for a financial reporting standard has been growing**

In today's business climate, all businesses are being bombarded with requests to provide more detailed, more rigorously defined and a wider variety of information - yet most businesses are not equipped to deliver it. The pressure on businesses and regulatory agencies to capture, exchange, and analyze data is also growing rapidly.

For businesses to comply with these regulatory requests, they must collect and monitor more detailed information and report them on a more frequent basis. Governments and regulators requesting this information must also implement sophisticated systems to capture, process and analyze massive amounts of information from thousands (in some jurisdictions millions) of filers. This information must be accurate, complete and consistent - allowing regulatory organizations to quickly assess, consolidate, analyze and act on these monthly, quarterly or annual filings.

A financial data exchange standard was needed to ensure that information is being consistently reported across organizations and to the satisfaction of a variety of regulatory bodies. Enter XBRL: established in 1999, XBRL (short for "eXtensible Business Reporting Language") is an open source XML based language developed to define and exchange business and financial information. XBRL is used to describe the data elements and the business rules inherent in this business information. Like a barcode, it links fact values to a wealth of metadata that govern the interpretation and validation of these facts. XBRL promises to help achieve corporate and regulators' goals for quick and automated analysis of larger amounts of information - thus reducing time, costs, and errors involved in business reporting processes.

XBRL provides for the structured exchange and validation of business reporting information. It also ensures context and integrity of the data's meaning across multiple processing and reporting environments. With XBRL, businesses and agencies can attain higher levels of data accuracy and information reuse, which results in faster turnaround times and decision making.

The XBRL adoption debate has been going on for over a decade now with as many detractors as there are proponents across the world. Each group is steadfast in their position, citing the many advantages or disadvantages of XBRL, in support for their position.



## WHAT ARE THE ADVANTAGES AND DISADVANTAGES OF XBRL?

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### Advantages:

1. **XBRL is a universally accepted information sharing language.** XBRL is available across many countries and facilitates sharing of business information in many languages, on any computer platform and in multiple accounting standards. Regulators and Investors alike can access this information electronically and in seconds be able to perform real-time analysis within and across organizations.
2. **XBRL improves Corporate Transparency and increases overall credibility of the Global Financial community.** The global financial crisis in 2008 has fueled the adoption of XBRL by regulators across the globe. Standard financial element definitions, common validation rules, increased reporting, and improved analysis have all conspired to improve the financial transparency of organizations that might have otherwise used accounting tricks to mask their financial health.
3. **XBRL improves the quality and speed of information exchange while reducing overhead.** The implementation and deployment of XBRL drastically reduces the ongoing costs of information collection, analysis and dissemination, while substantially improving the accuracy and quality of the data. Regulators adopting XBRL as the required standard for filing see many benefits, starting with more accurate filings since validation is typically performed on the filer's end prior to submission. This leads to a reduced administrative burden, providing better oversight at reduced costs.
4. **Availability of standard global Taxonomies.** Since XBRL is Open Source, Regulatory organizations around the world can readily and freely re-use standard Taxonomies that may have taken years and cost millions to develop and document. These Taxonomies could be adopted as-is or can be tweaked/customized by the adopting organization, reflecting the unique way they regulate and/or do business in their jurisdiction.
5. **XBRL adapts well to a variety of uses.** XBRL is not just a financial reporting vehicle; although it is primarily used today for financial reporting, it can equally be used to share non-financial business information like inventory levels, production volumes, reseller sales and returns.

### Disadvantages:

1. **XBRL Complexity can lead to transmission errors.** Being XML-based, XBRL is complex and not easily read or written by accountants, regulators or business users, necessitating the dependence on experienced IT developers to assist with the electronic filing. XBRL's complexity combined with letting inexperienced users create data for transmission increasing the likelihood of errors.
2. **Increased Organizations' filing Costs.** Many regulators around the globe have mandated XBRL, but have not provided their filers with a data collection or an XBRL conversion facility to assist with the XBRL adoption. This forces organizations to hire 3rd parties to generate the XBRL filings for them, or alternatively revamp their back-end systems at huge costs in order to generate XBRL filings themselves.
3. **XBRL facilitates near real-time disclosure.** The potential to quickly report information in an automated way is a double-edged sword. On the one hand, near real-time disclosure improves transparency and sharing of information; on the other hand, near real-time disclosure may emphasize short-term results at the expense of long-term objectives. Some argue that real-time disclosures may cause undue stock price volatility and impulsive decision-making by investors, suppliers, customers and management.
4. **XBRL Taxonomies are extensible and possibly too flexible.** Taxonomies are by design extensible, allowing organizations to add data elements that better describes an amount that doesn't currently exist in that particular taxonomy. However, overuse of taxonomy extensions may result in an organization's filing being non-standard and less comparable to companies in the same industry - thus reducing transparency and eliminating many of the XBRL benefits.
5. **Early Global adoption of XBRL has resulted in chaos and increased costs.** Global adoption of XBRL as the Financial Reporting standard has rushed organizations into adoption before integrated XBRL productivity tools were readily available. This resulted in a huge amount of custom coding by desperate IT groups rushing to fill the gap between readily-available technologies and the immediate business requirement of generating or collecting XBRL filings.

## HOW PREVALENT IS CURRENT XBRL ADOPTION?

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Despite some disadvantages and false starts, organizations across the globe in today's reporting chain are increasingly viewing XBRL as the enabling technology that will allow them to automate the capture and analysis of financial information. Currently used by Stock Exchanges and Financial regulators in North America, Europe, the Caribbean and Asia Pacific, XBRL has clearly become the global standard for financial reporting and disclosure in the 21st century.

### THE 3 APPROACHES TO XBRL ADOPTION

XBRL has been widely adopted by Regulators throughout the world, in one of 3 ways:

#### 1. Mandated XBRL filings

#### 2. Voluntary/Optional XBRL filings

#### 3. Converted/Facilitated XBRL filings

##### **Mandated XBRL Filings:**

This is when the regulator mandates to their filers that they must file their financial returns using XBRL starting at a given point in time, usually providing an 18-24 months lead time. These regulators would not provide any facilities to the filer to generate or convert their data to XBRL; it is up to each filing organization to determine what they'll need to do to convert their financial data to XBRL. Failing to submit their filing in XBRL by the set deadline would usually result in penalties for the non-compliant organization.

The Securities Exchange Commission (SEC) in the US is a good example of mandated XBRL adoption: the SEC mandated organizations to file their Financial Statements in XBRL in 2008 but left it up to each organization/filer to determine how to generate their XBRL filing.

This approach to XBRL Adoption isn't conducive to 100% compliance or even data accuracy, as it usually results in each filing organization having to scramble to determine the best and/or most affordable means of generating XBRL instance documents by the set deadline.

##### **Voluntary/Optional XBRL Filings:**

This is when the regulator announces their readiness to accept XBRL filings, but it is completely voluntary and there are no associated penalties for not filing in XBRL. This type of adoption usually results in a minimal XBRL compliance rate as there is usually no incentive for the filing organization to incur the cost of generating XBRL filings from their back-end systems. Typically only very large organizations that file in multiple jurisdictions (and that have already internally adopted the XBRL standard) would comply.

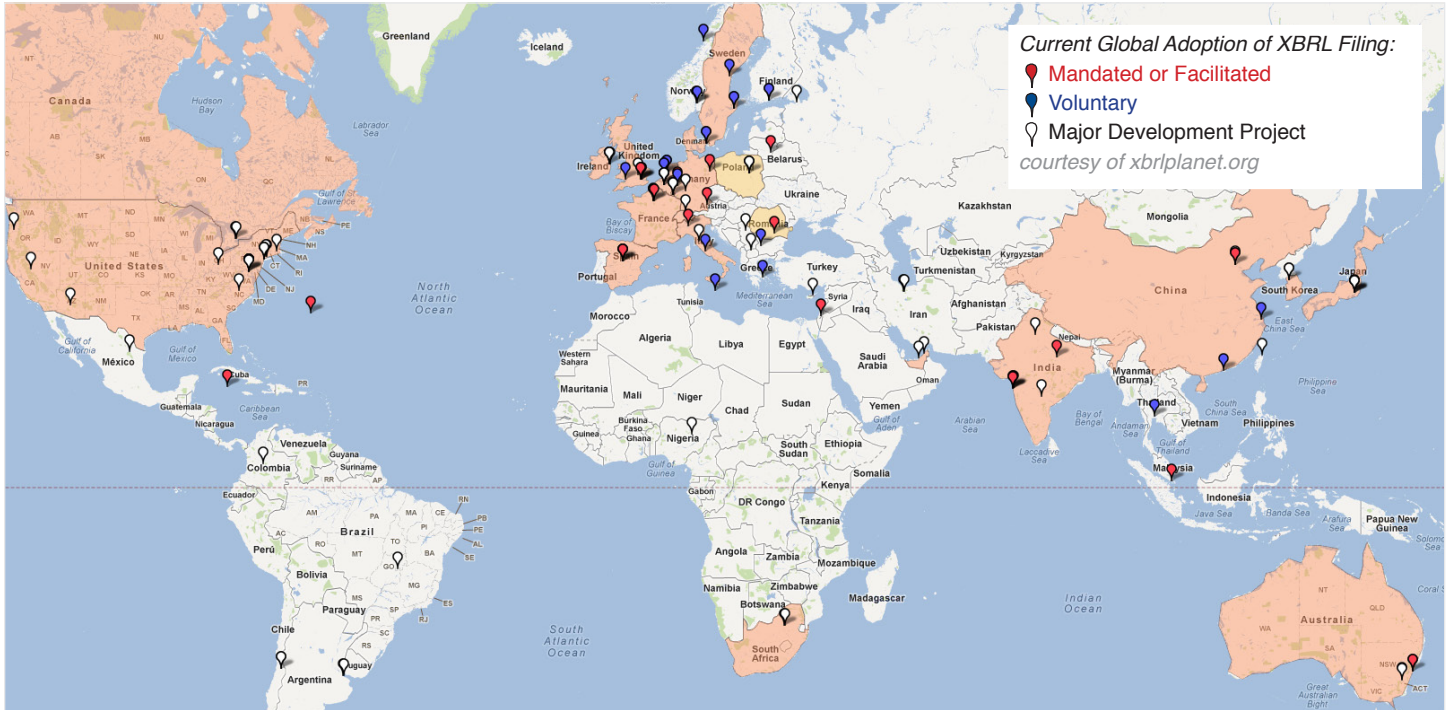
Regulators choosing to adopt this Voluntary/Optional approach, like the Australian treasury's Standard Business Reporting (SBR) initiative, typically experience a very slow adoption rate and do not realize the immediate benefits of XBRL adoption.

##### **Facilitated XBRL Filings:**

This is when the regulator mandates to their filers that they must file their financial returns using XBRL starting at a given point in time, usually providing a 12-18 months lead time. These regulators would provide all their filers with a Data Collection or Data Conversion facility that will convert a standard format to XBRL on the filers behalf. This approach to XBRL Adoption usually results in a 100% filer compliance and maximum data accuracy, as it does not place any additional burden on the filer.

This approach also ensures that the data validation for completeness and accuracy is done at submission time against the taxonomy, reducing the regulators processing and re-submission costs, while providing them with the added benefit of being able to properly compare and assess 100% of all filings in a given industry and across industries.

Although the converted/facilitated XBRL adoption approach is the most desirable from both the filers' and the regulators' perspectives, yielding all the XBRL benefits and eliminating all but arguably one of the disadvantages of XBRL adoption (near real-time Transparency), there is a cost to rolling out this data collection/conversion facility to all filers. That cost has consistently come down over the years and at the publishing of this article, depending on the software vendor, stands at less than 1 year of ROI.



The following table compares the relative success of these 3 XBRL adoption approaches:

XBRL Adoption: Key Success Factor	Mandated XBRL	Voluntary XBRL	Facilitated XBRL
Utilize standard global taxonomies	✓	✓	✓
Use a single common taxonomy for all filing organizations (rejecting any taxonomy extensions by Filers)	✓	✓	✓
Reduce Regulators' processing costs	✓	✗	✓
Facilitate near real-time disclosures and corporate transparency	✓	✗	✓
Conducive to easier and better analysis for Regulators	✓	✗	✓
Eliminate additional technological or financial burden from Filers	✗	✓	✓
Reduce organizations' filing costs	✗	✓	✓
Results in a quick 100% compliance	✗	✗	✓
Perform validation prior to submission	✗	✗	✓
Ensure consistency, completeness and accuracy	✗	✗	✓
Enable more frequent submissions (daily, weekly, monthly)	✗	✗	✓
Enable quicker policy/taxonomy changes (monthly, quarterly)	✗	✗	✓

# XBRL Adoption Best Practices: *What We've Learned*

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1. Leverage existing global standard taxonomies (e.g. IFRS, FINREP, COREP, Solvency II, etc.) and use as starting point for own custom taxonomy - this will significantly reduce Taxonomy design and XBRL implementation/rollout costs
2. Ensure consistent corporate filings and maximize regulators ability to compare filings across organizations by providing standard taxonomies to all filers and deterring/preventing filers from adding own Taxonomy extensions
3. Invest in a fully integrated end-to-end XBRL solution that allows for near real-time analysis of filed data across organizations, reporting periods and taxonomies
4. Encourage administrator self-sufficiency (and reduce dependency on IT) by adopting intuitive and less complex Taxonomy Design tools - this approach places the regulatory tool in the policy makers' and regulators' hands
5. Adopt a Facilitated XBRL approach - providing filers with an XBRL Data Collection/Data Conversion and data validation facility, thus:
  - A. removing the XBRL financial burden and complexities from filers, paving the way for immediate 100% compliance
  - B. allowing regulators to change/tweak the taxonomies as often as required by policy makers and on fairly short notice
  - C. ensuring instance document accuracy and completeness prior to submission
  - D. facilitating more frequent filings/submissions and increased corporate transparency
6. Reduce regulator processing and re-processing costs by ensuring that the XBRL filing is validated by the filer prior to submission.

Although XBRL has been used primarily in reporting financial information to financial regulators in the form of periodic financial reports, as XBRL adoption grows, so will its applicability to other industries - XBRL can just as easily be used for sharing non-financial business information such as:

- Healthcare data collection and analysis;
- Sales reporting across organizations, their subsidiaries and channel partners;
- Generic data collection and analysis vehicle for surveys, demographic data collection or consumer feedback.

The Financial industry has learned quite a bit since XBRL was first unleashed in 1999, and given the significant technology advances of the past decade, now (in 2012) there are no excuses for regulators not to adopt, successfully implement, and take full advantage of what XBRL promised a decade ago and is now fully delivering to progressive financial regulatory bodies around the world.

## *About the author*

Sam P. Selim is the Founder and CEO of SQL Power Group ([www.sqlpower.ca](http://www.sqlpower.ca)), a leading Canadian Software Consulting firm specializing in Business Intelligence and XBRL Implementations. Mr. Selim serves as SQL Power's XBRL program manager and lead architect for many of SQL Power's Software solutions.

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# Fully-Integrated End-to-End XBRL Solution For Regulators

## Web-based, Zero-Footprint XBRL Supervisory Data Collection & Analytics

SQL Power is the first to offer a fully-integrated, web-based, end-to-end XBRL platform for supervisory Data Collection & Analytics. Our framework permits a regulator to collect high quality financial data quicker, and in an electronic standardized way - ultimately accelerating financial analysis and improving communications between regulatory agencies. The solution will render returns forms, support Data Collection based upon standard XBRL Formulas, deliver to the subscriber valuable feedback on their returns, and provide real time validation. A subscriber simply logs in via the internet and submits its business information or corporate financial filings via an intuitive submission form rendered by a standard or custom taxonomy. The submission is then validated in real time, certified, converted and stored as XBRL for easy analysis, management and system-to-system distribution/information sharing between Financial Regulatory authorities and the downstream institutions they supervise.

### Regulators face many data challenges:

- Uncontrolled, disparate, electronic document, spreadsheet or other similar form of unstructured data, collected in a poorly controlled ad-hoc manner
- Unstructured low quality data, unreliable and incomplete containing potential errors in the data that require re submission and correction
- Manual effort involved in collating and processing returns, re-keying data into proprietary back-end systems
- Aggregation and analysis is tedious, demanding advanced technical skills and products retrofit for regulation

### SQL Power's Zero-Footprint end-to-end XBRL platform offers:

- High-quality, structured data, certified against your XBRL taxonomy for accuracy and completeness, in a standardized electronic format
- Data is instantly accessible and re-usable across the financial reporting supply chain, between banks and regulators, among regulators and accessible to governments, the markets and industry
- Zero burden and zero training required on the part of filing entities, resulting in 100% compliance

Systematically controlled, standardized data content that's been collected on time and validated in real time ultimately accelerates financial analysis - and best of all, there is no requirement for manual intervention.



# SQL Power Zero-Footprint Platform

The SQL Power Zero-Footprint platform is the optimal medium for collecting, monitoring and reporting against standardized electronic content worldwide.

Built organically from the ground up specifically to satisfy complex and evolving financial regulatory requirements, SQL Power Solutions are establishing the pattern for disclosure in the 21st century - the preeminent blend of regulatory expertise and enterprise-class software engineering.

The SQL Power Zero-Footprint platform is based on a low-risk, modular architecture to enable the collection, processing, storage and analysis of supervisory, solvency and statistical data. The core components of the platform are:

- **XBRL Forms** and **XBRL Power EAS** thin-client platforms form the building blocks for the user experience,
- **XBRL Designer**, a business-user lead tool for taxonomy and returns creation,
- **XBRL Analytics** pre-built reporting and analytical solution,
- and at the core of these modular applications is the industry's highest performing and most scalable **XBRL Processing Engine (XPE)**.

These application components can be purchased individually or grouped into a fully integrated end to end solution.

## Applications

- Regulators & Central Banks
- Credit Risk Management in Commercial Lending
- Capital Markets Investment and Securities Regulation
- Governments, Statistical and Central Health Authorities
- Issuers to investors "corporate actions"
- Other Data Collection organizations

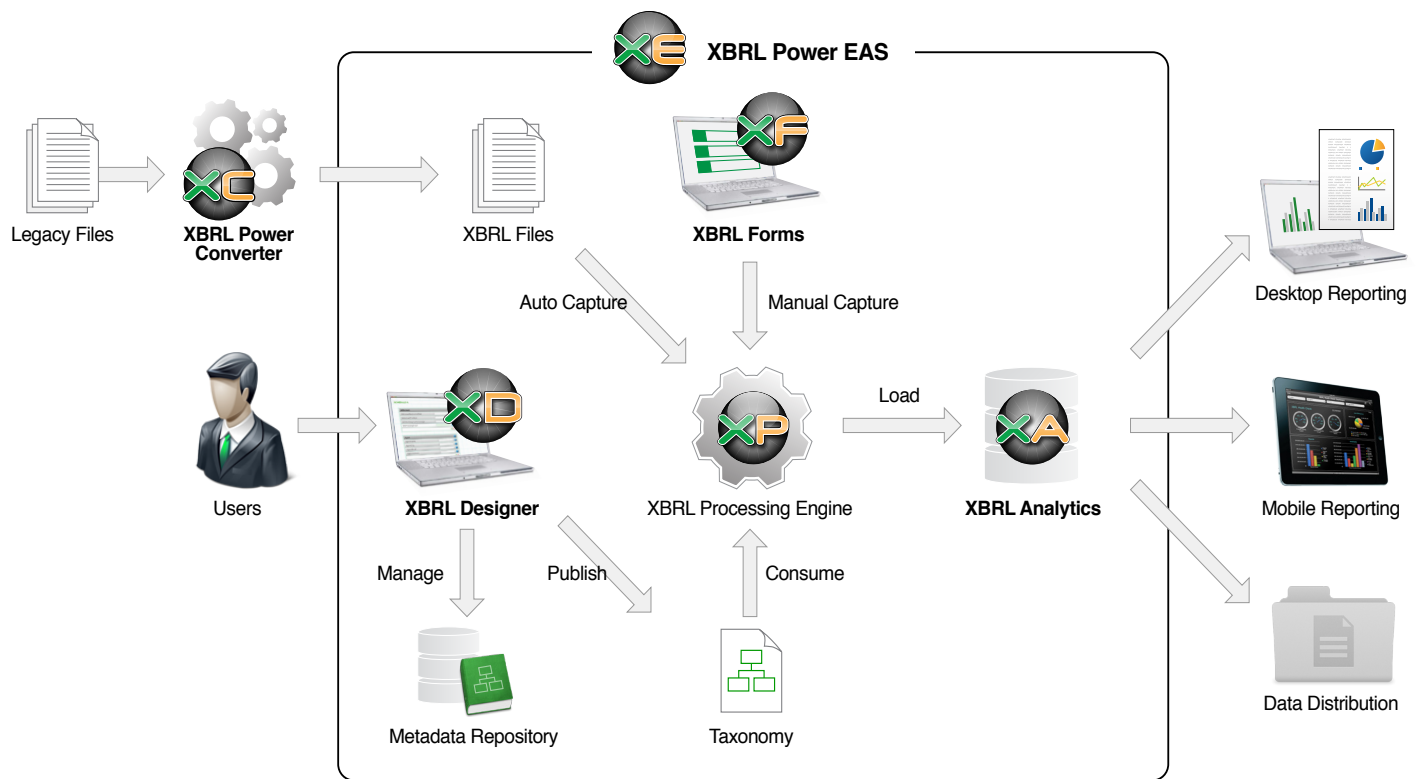
## Benefits

The SQL Power Zero-Footprint platform is a simple but comprehensive XBRL solution that removes the onus of creating XBRL instance documents from the regulated entities and ensures maximum compliance and adoption.

- Rules-based, metadata-driven GUI design functionality puts the regulators and policy makers back in control, allowing them to quickly change the Taxonomy (data collection rules) to respond to changing trends and monitoring requirements in mere days- ultimately future proofing the organization.
- Enables easy collaboration among other regulators, and in particular facilitates group-wide analysis as well as solvency calculations under an extended supervision framework.
- A comprehensive and fully-integrated XBRL solution provides the optimal medium for controlling, mining and reporting against standardized electronic content.
- A Zero-Footprint (thin client) forms-based XBRL solution removes the onus on the filing organizations - increasing adoption and compliance, while insulating the filer against the complexities of XBRL.
- SQL Power's pre-built Analytics Data Mart comes bundled with MicroStrategy, and delivers instant reports, ROLAP cubes, Data Mining, Mobile Dashboards and an ad-hoc Business Intelligence environment.
- Standardized electronic "content" enables direct system-to-system information sharing between filing entities, Central Banks and other regulatory agencies, and minimizes error rates as information moves from regulated sources through to the regulators analytical software via straight through processing (STP).



# The XBRL Power Suite



## XBRL Power EAS: Secure Portal To Productivity

Serving as command control for the entire XBRL Platform, XBRL Power Enterprise Application Suite (EAS) provides the enterprise-level web services required (such as security, collaboration, scheduling, notifications, user management, taxonomy management and document management) for fully-integrated, end-to-end XBRL data collection and analysis.

## XBRL Designer: XBRL Taxonomy Optimization At The Business User Level

XBRL Designer is a rules-based, metadata driven GUI design facility that gives the business user complete control over Data Collection and validation specifications. It enables “self service” for Regulators, demystifying XBRL Taxonomy Design and allowing them to rollout their Data Collection requirements in days instead of months.

## XBRL Forms: Financial Data Capture

XBRL Forms provides an easy-to-use, web-based front end for users to submit financial information and verify the validity of their submission. The processing engine also provides taxonomy and instance document validation and conversion to XBRL.

## XBRL Analytics: True Data Mining/Analytics with Sophisticated Financial Reporting

XBRL Analytics bundles SQL Power’s proven ETL technology with pre-built MicroStrategy reports, graphs and dashboards (including mobile versions) to deliver regulatory business intelligence value day one. XBRL Analytics comes with pre-defined standard reports, as well as web and mobile dashboards. Additional ad-hoc reports and custom standard reports and dashboards can also be developed.



## XBRL Power EAS:

### Command Control - Secure Portal to Productivity

Serving as command control for the entire XBRL Platform, XBRL Power Enterprise Application Suite (EAS) provides the enterprise-level web services required (such as security, collaboration, scheduling, notifications, user management, taxonomy management and document management) for fully-integrated, end-to-end XBRL data collection and analysis. It seamlessly integrates the individual components of the XBRL Power suite (XBRL Designer, XBRL Forms and XBRL Analytics) to provide a single, secure access point for all users.

The integral hub of SQL Power's Zero-Footprint end-to-end XBRL platform, the XBRL Power EAS 'thin client' runs in any modern web browser, making it easy to use, easy to deploy and instantly accessible for all users within your organization.



#### XBRL Power Converter

An optional addition to EAS, XBRL Power Converter products and services provide an upload mechanism to accommodate pre-defined standard input CSV, XML and fixed length format files. XBRL Power Converter can automatically generate XBRL instance documents as well as make them available to the other integrated application components of the system.

## Features

### Content & Document Management

- Upload pre-defined standard input CSV, XML and fixed length format files (optional)
- Collect, consolidate, review financial and operational data
- Shared Workspaces
- Enterprise Collaboration
- Identity Management
- User-defined validation levels, post-validation data routing

### Extensible Taxonomy Management

- Full life-cycle metadata management
- Taxonomy testing tools
- Taxonomy change reports
- Concept-level viewing and editing

### Reporting Management

- Automated XBRL submission workflow
- Scheduling
- Configurable Notification Management

## Integration

XBRL Power EAS manages single sign-on (SSO) security authentication for all XBRL Power suite components, so users sign in once in EAS and are granted secure access throughout the XBRL platform based on their role/privileges.



**XBRL Analytics:** XBRL Analytics runs via an EAS portlet, so all reports and dashboards can be accessed directly from EAS without having to launch any external applications.



**XBRL Designer:** XBRL Power EAS includes a Java Web Start client for XBRL Designer, so users are automatically upgraded to the latest version of the taxonomy design software.



**XBRL Forms:** XBRL Power EAS manages and links directly to XBRL Forms.

## System Architecture

This browser-based platform offers an XBRL-enabled set of application components that can be quickly assembled and configured to deliver Data Collection against XBRL instance documents. Built on a service-oriented architecture, the platform includes web services for both external and internal system access and can include other custom integrations. XBRL Power EAS integrates with XBRL Forms features that help enable XBRL Filing.

**Security:** XBRL Power EAS integrates with existing security architectures such as LDAP Authentication and Synchronization, Oracle Access Manager, Novell Identity Manager, Sun Identity Manager / Open SSO, SiteMinder and Tivoli.

**Performance:** The XBRL Power EAS Liferay Portal has been tested to support more than 3,000 concurrent transactions (33,000 simultaneous users) on a single 8-core application server.

**Open Framework:** XBRL Power EAS web services are supported by Liferay's completely exposed API, which includes a Software Development Kit for rapid customization or custom portlet development.

# XBRL Designer:

## Do-It-Yourself Taxonomy and Returns Design Management

Traditionally, Taxonomy design required skilled XML programmers or XBRL specialists to prepare taxonomies by specifying detailed concepts, groups, dimensions, calculations, and validation rules.

XBRL Designer is a rules-based, meta-data driven GUI design module that now gives business users complete control - streamlining taxonomy design and XBRL Formula creation, as well as the returns definitions and Data Collection design process. XBRL Designer allows business managers and regulators to quickly react to changing legislation, standards and policies without IT or 3rd party intervention.

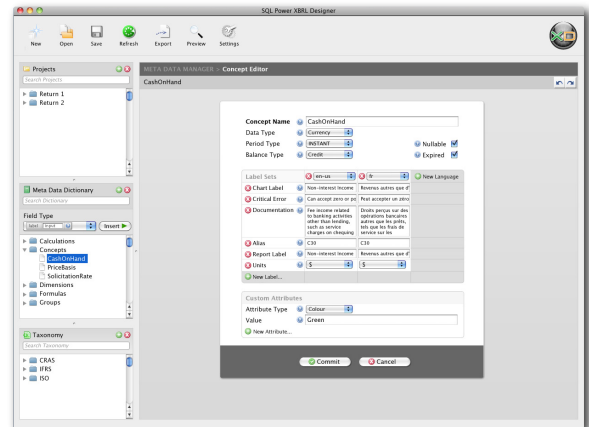
XBRL Designer enables "self service" at the business level in the same way XBRL Forms enabled "self service" for filers three years earlier. It demystifies XBRL Taxonomy Design and allows an organization to accelerate the rollout of complex Data Collection templates, often in hours or days instead of months.

### Detailed Functionality

- No XBRL knowledge required
- Java web start application launched from EAS
- Security and updates handled through EAS integration
- Metadata-driven data return design solution
- Metadata Management
- Create metadata items such as data elements, groupings, dimensions etc.
- Stored and fully versioned in a database
- Formula / Rule Management
- Design calculations and formulas for the population of a data element
- Create rules for fatal errors and warnings using simple or complex formulas to improve data quality
- Return Design and Management
- Design schedules and their form layouts for information returns with an easy drag and drop interface from the defined metadata
- Generates XBRL Forms configuration file and XBRL Taxonomy

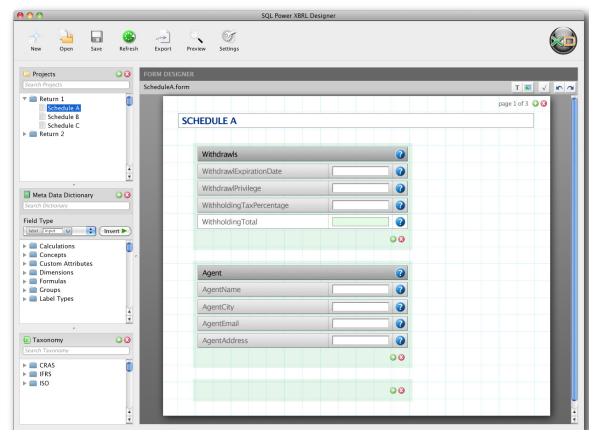
### Integration

XBRL Designer takes the complexity out of XBRL. It integrates with all the other superVision Suite components through the **superVision Center** web portal which provides an entry point for the user into every solution component. User authentication and security is managed through superVision Center, allowing organizations flexibility in securing solution design components and building workflow processes.



### Metadata Management

Even non-technical users can create concepts, calculations, dimensions and formulas and to add them to the Metadata Dictionary and/or taxonomy - allowing them to easily evolve the required Data Collection data elements and associated validation rules without needing to learn XML or XBRL.



### Form Design

XBRL Designer also allows non-technical users to access pre-defined Taxonomy components (such as concepts, calculations and dimensions) from the Metadata Dictionary or an existing taxonomy and drag-&-drop into the Forms layout playpen.



# XBRL Forms:

## Thin-Client Data Collection & Validation Facility

The number one roadblock to successful XBRL Adoption is the need for filers to retool their back-end systems to generate XBRL filings that are compatible with their Regulators' evolving Taxonomy(s). Regulatory organizations that have mandated XBRL in their jurisdiction without providing an XBRL Data Collection/Conversion facility have significantly burdened their filers, resulting in lower compliance and resistance to the XBRL mandate.

XBRL Forms removes the financial and technological burden from the filers and provides them with an easy-to-use, web-based front end for users to verify financial information prior to submission. With the taxonomy identified, the XBRL Forms application dynamically renders a set of taxonomy-driven returns and schedules to facilitate the data capture of high-quality financial information. XBRL Forms validates each filing in real time against the taxonomy and certifies the return, generating the required XBRL instance document.

XBRL Forms also allows regulatory organization the flexibility to change their Data collection requirements, validation rules and reporting frequency, in very short order - without the need to provide filers with a significant lead-time for retooling.

With XBRL Forms, Regulators move beyond compliance by effectively removing the burden and complexity of generating XBRL filings from the filing organization, thus enabling immediate adoption of the new filing standard.

### Zero-Footprint Software

XBRL Forms provides a Zero-Footprint thin-client facility for data entry of financial information. This means zero software downloads are required - which translates into maximum compliance and maximum adoption. Zero-Footprint offers the highest levels of automated filing to Regulators and their regulated subscriber entities: a subscriber simply logs in via the internet and submits its business information or corporate financial filings via a secure, intuitive submission form dynamically rendered by from the required XBRL taxonomy.



### Validation & Certification

Returns and schedules are automatically rendered based on information embedded in the taxonomy. Accurate submissions are ensured through extensive real-time validation as well as final certification.

#### Interactive Validation

Interactive validation occurs on a field by field basis: as the user enters data, they are alerted to fatal errors or warnings defined within the taxonomy.

#### Final Certification

Final certification occurs when the user is ready to submit or output the filing: all rules in the taxonomy are processed and a validation screen presents details on any and all fatal errors or warnings. Fatal errors will prevent a filing from being submitted, warnings will not.

Validation errors and warnings can be extended in the taxonomy to virtually cover an infinite number of business rules through the use of XBRL Formulas.

### Detailed Functionality

- Web based (Java)
- Integrates with XBRL Power EAS:
  - User access control
  - Reporting management
  - Enablement of resubmissions
  - View past filings
  - Create new filings
- Import and output/download XBRL Instance Documents
- Print (pdf) Instance Documents
- XBRL Taxonomy Metadata drives:
  - Data Domain Validation
  - Online Help
  - Admin Guide
  - Validation (formulas)
    - Interactive
    - Final
  - Calculations
  - Multilingual

### Features

- Ensures accuracy - interactive real-time validation against the taxonomy, triggering all required calculations, formulas, and rules
- Easily deployed on all standard browsers, integrates tightly with the XBRL Power EAS portal
- Stores works in progress for future revisions
- Allows for final Validation/Certification of returns prior to submission
- Generates XBRL Instance Documents for submission
- Imports XBRL instance documents for viewing, modification and re-submission
- Provides full Multilingual support





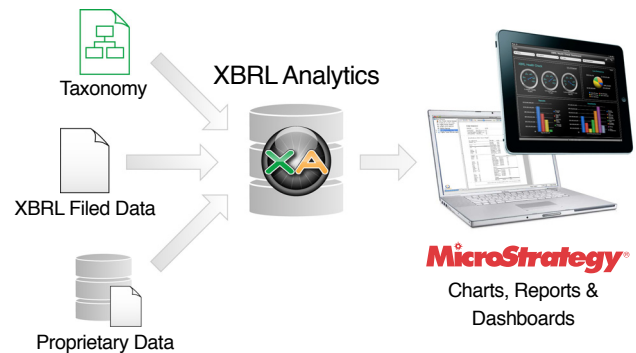
## XBRL Analytics: Pre-Built XBRL-Ready BI Platform

### Near-Real-Time Business Intelligence Platform for Analysis of XBRL Data

After collecting all the filers' business information in XBRL, organizations need to meet the growing demand for timely and accurate analysis and mining of these filings. Traditional, custom-built Data Warehouse solutions often take too long and cost too much to build, and do not contain the latest information required for timely decision-making. Furthermore, once the Taxonomy changes, further development needs to occur to process and report against the new XBRL instance documents.

XBRL Analytics bundles SQL Power's proven ETL technology and XBRL parsing approach with an embedded Business Intelligence (BI) stack from MicroStrategy (NASDAQ: MSTR, the global leader in BI and mobile BI technology). XBRL Analytics transforms, loads and then optimizes XBRL instance documents into a relational database for sophisticated data mining, reporting and analysis.

XBRL analytics comes out of the box with pre-built MicroStrategy reports, graphs and dashboards (including mobile versions) allowing for very quick deployments (usually in under 30 days). Further reports, graphs, dashboards, or mobile applications can be easily customized for specific organizational needs via the MicroStrategy stack. The XBRL Analytics platform enables a wide range of stakeholders worldwide to consume and examine comparable XBRL data quickly, easily and efficiently.



### Maximum Disclosure & Transparency

Standardization of data content combined with XBRL Analytics will also enable intra- and cross-sector analysis and data mining for supervisory purposes. This will support regulatory processes for macro-prudential supervision such as benchmarking, identifying outliers, or peer rankings within an industry category or across market sectors.

Standardization of data content in XBRL Analytics also enables easy collaboration between regulators, and in particular facilitates group-wide analysis as well as solvency calculations under an extended supervision framework.

### Features

- Flexible and extendable Data Architecture which can load any XBRL instance document and can address any XBRL Business Intelligence requirement.
- Taxonomy Agnostic platform - XBRL Analytics works with any Taxonomy and can analyze filings across organizations, industries and Taxonomies.
- Pre-built reports, graphs and dashboards using MicroStrategy, enabling you to answer business questions quickly and effectively.
- Easily customizable to add new data, reports, graphs or dashboards to meet evolving regulatory organizations' Business Intelligence needs.
- Analyze your data anywhere with mobile reports and applications on your iPhone, iPad, or BlackBerry device.
- Explore your data and knowledge-discover using MicroStrategy's built-in data mining capabilities.
- Quick Deployment in weeks, not years, using pre-built structures, data migration processes and reporting objects tailored for analysis of organizations' XBRL financial filings.

# XBRL Processing Engine (XPE)

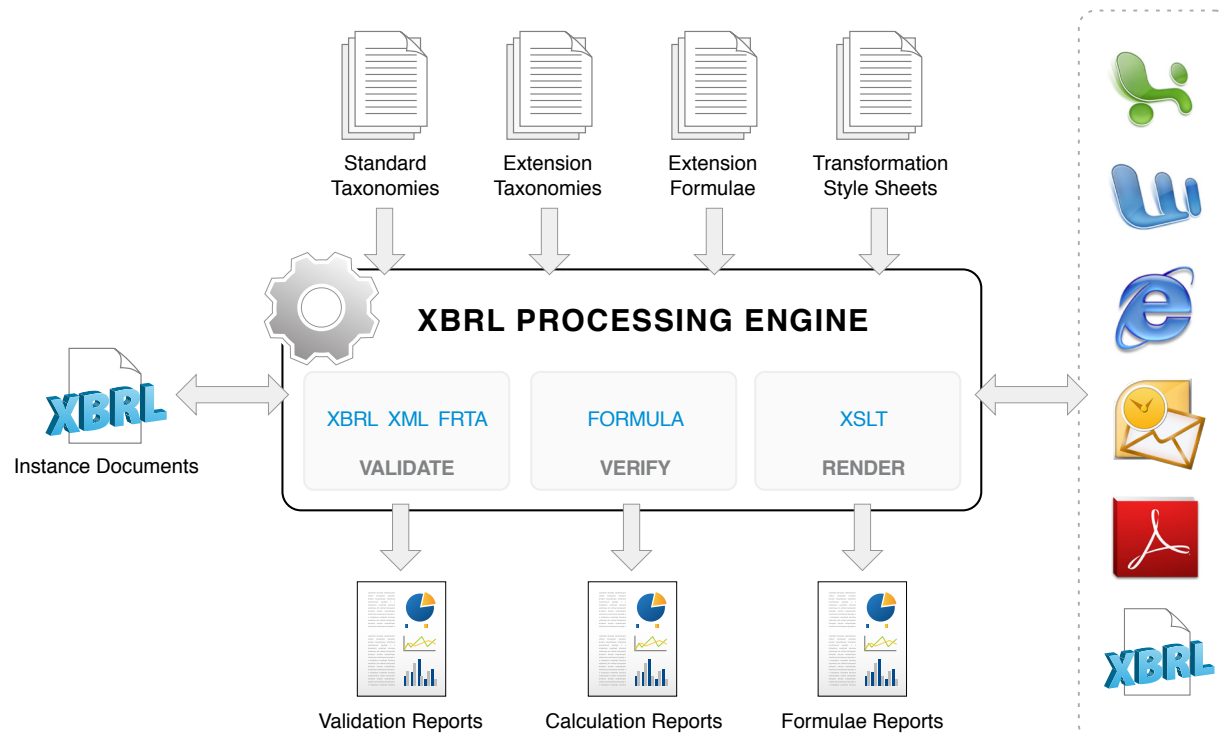
## The High-Performance Heart of XBRL Power Suite

At the core of XBRL Power Suite is XPE, the XBRL Processing Engine. Heralded as the industry's highest performing and most scalable XBRL engine, it is the heart of the system. From standard XML and XBRL validation to a wide range of Data Collection possibilities, the XBRL Processing Engine has proven its mettle in a variety of enterprise-scale customer projects.

Designed for high volume, large scale business processes requiring XBRL/XML data validation, conversion and rendering, XPE is built on a completely extensible object-oriented architecture enabling developers to easily integrate XBRL into existing applications. This robust architecture includes a full Software Development Kit (SDK) that provides XBRL and FRTA validation, transformation of taxonomies and instance documents using XSLT and extraction of data via XPath 2.0.

### XPE features include:

- XBRL and FRTA validation
- XBRL 2.1 spec compliant
- Calculation validation
- Full support of XBRL Dimensions 1.0 and XBRL Formulas 1.0
- Extensible object oriented architecture
- Complete SDK (XPE API)
- Designed for high volume, large scale reporting systems
- Multi-threading
- Streaming documents
- Support for both .Net and Java



# Why Choose SQL Power?

**SQL Power Solutions were built organically from the ground up specifically to satisfy complex and evolving financial regulatory requirements.**

## Business-User-Driven Taxonomy Design

- Rules-based, metadata-driven GUI design facility puts the regulators and policy makers in the driver's seat of their regulatory processing and monitoring XBRL system
- Simple and easy-to-use Taxonomy Design facility allows business users to quickly change Taxonomies (data collection rules) to respond to changing trends and monitoring requirements

## Facilitated Web-based Filing

- A Zero-Footprint (thin client) forms-based XBRL solution removes the XBRL technological and financial burden from the filers and allows them to report their financials over the web without any knowledge of XBRL
- Facilitated data collection facility provides regulators and filers with a quick and smooth transition to XBRL and provides for immediate XBRL adoption and 100% compliance
- XBRL Forms solution is automatically rendered from the latest taxonomy and allows filers to validate their filing against the latest taxonomy prior to submission
- Pre-validated filings reduce regulators processing and re-submission costs

## Fully-Integrated Analytics

- SQL Power's pre-built Analytics Data Mart comes bundled with MicroStrategy and delivers instant reports, ROLAP cubes, Data Mining, Mobile Dashboards and an ad-hoc Business Intelligence environment
- Fully-integrated XBRL Analytics platform allows regulators and investors alike to monitor and assess organizational performance in near real time (approx. 15 seconds after submission)
- Standardized electronic "content" enables direct system-to-system information sharing between filing entities, Central Banks and other regulatory agencies, and minimizes error rates as information moves from regulated sources through to the regulators analytical software via straight through processing (STP)

**SQL Power has an impeccable track record of end-to-end XBRL implementations that yield all the benefits of XBRL while addressing all of the traditional shortcomings.**



## RE-INVENTING THE BUSINESS INFORMATION SUPPLY CHAIN™

SQL Power's web-based XBRL Data Collection and Analytics solution allows filers to log in via any web browser, file their corporate financials on-line, validate and certify them against the desired XBRL taxonomy in real-time and submit them to the regulator for review and financial analysis.

### About SQL Power

Founded in 1988, and headquartered in Toronto Canada, SQL Power Group Inc. is a global application Software firm specializing in Business Intelligence and XBRL implementations. Since implementing the first Regulatory XBRL Solution in Canada in 2009, SQL Power has been at the forefront of XBRL software innovation - rolling out the world's first fully-integrated XBRL data collection, return management and analytics solution designed specifically for regulators' business users. Our consultants possess deep domain knowledge and strong practice expertise in XBRL, Data Integration and Analytics and will help de-risk any XBRL implementation.

## LIVE DEMOS

To learn more about SQL Power solutions, contact us today to schedule a live demonstration.

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