XT Database

The easy way to analyse and report on XBRL data

UBPARTNER

The XT Database:

- ***Provides unmatched flexibility for storage and analysis of XBRL data***
- ***Enables data to be retrieved using the business semantics embedded in the XBRL taxonomy***
- ***Significantly reduces system maintenance headaches caused by rapidly evolving taxonomies and XBRL standards***
- ***Can be extended to deliver a robust platform for extraction of XBRL data to other reporting and analysis systems, such as Data Warehouses.***

UBPartner's XT Database provides a simple, yet powerful and effective method for analysing and reporting on XBRL data. Based upon a standardised XBRL storage model, it has the advantage of enabling any XBRL document to be stored in a database without changing the underlying data model, whilst also providing a performant platform for cross document queries and Business Intelligence tools.

The XT Database delivers the speed, scalability, and security required by organizations looking to implement a full XBRL-based reporting system and can be deployed as an optional component of the XT Portal or implemented as a standalone product. It can also provide a robust platform for extracting data to other systems that deliver more detailed BI and advanced analysis, e.g. a Data Warehouse.

Efficient XBRL Data Storage

In the past, many organisations were forced to develop custom 'shredding' systems to load XBRL documents into an independent reporting database. Unfortunately, this approach loses much of the rich metadata associated with an XBRL filing and results in a huge maintenance cost to keep everything synchronised with the rapidly evolving taxonomies and XBRL standards.

Implementing a standardised XBRL data model provides a much more effective and efficient XBRL storage mechanism as it keeps the full semantics of the taxonomy yet provides the basis for a performant and scalable reporting system.

Smarter XBRL Storage

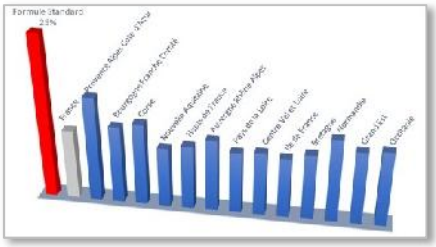
The XT Database uses such a standardised XBRL data model, enabling new XT Taxonomy Packages to be registered as they become available and for XBRL instance documents to be stored without fuss, so that they can be readily analysed.

What's more, it knows how to intelligently query the information that's been stored, as it can support queries based on fact values (e.g., show me who reported a value greater than x), on metadata (compare income statements over the last four periods), or on documents (render the XBRL submission for a given company).

XT Database can be used by:

- Regulators to analyse XBRL submissions they collect;
- Group finance functions to compare and consolidate reports from subsidiaries;
- Companies to help produce other derivative reports, e.g. ORSA reporting in the insurance industry.

By enabling reconciliation between source systems and regulatory reports, XT-DB can save significant time and reduce errors.

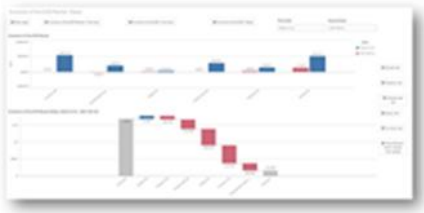


Risk analysis for ORSA report

UBPartner's XT Database

The XT Database allows user organisations to use standard SQL based tools, such as Qlik in the examples below, to prepare dashboards and custom analyses based upon XBRL data without any database customisation or loading routines.

Simple Dashboards produced without major effort



Reports of any type to meet the user's needs.

Extending the Model

The XT Database model and metadata can also be enriched with application specific data, e.g. DPM codes, Table Linkbase definitions, etc. This makes it easier to establish and maintain extraction routines and other ETL processes, making it a robust platform that enables the XBRL data to be readily extracted into a format that can be more easily loaded into an independent Data Warehouse or custom reporting system.

Native XBRL Database Solutions

Several database vendors have researched native XBRL storage models, based on XML or JSON file storage. The most recent research has been towards storing XBRL documents in a noSQL database, e.g. Mongo DB, using the files generated using the XBRL Open Information Model - OIM-JSON. This is a more generalised approach to handling data stored in multiple formats and could unlock the powerful semantic relationships in XBRL.

However, today the overheads of implementing a noSQL database, parsing the XBRL Taxonomy and implementing an efficient indexing system are still relatively large for most XBRL projects, but this may well become increasingly more achievable, even for smaller systems.

Which approach is right for you?

There is no single solution to meet all the differing system and end-user requirements to analyse XBRL data; however, UBPartner's knowledgeable consultants can help with advising on how to approach a specific set of XBRL data storage requirements.

The Technical Parts:

- **Microsoft SQL Server Database - 2008 minimum**
- **Processor: recommended at least 4 cores and 2GHz**
- **RAM: at least 4 GB is needed**
- **Java 1.8 64-bit version minimum**
- **XT portal for out-of-box taxonomy and document loading**
- **Any standard Business Intelligence tool**
- **Web-access to the server from the client**

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