

**Confidential:**  
**New Product Description from DSSlab**



# DSSlab's Voyager Technical Overview

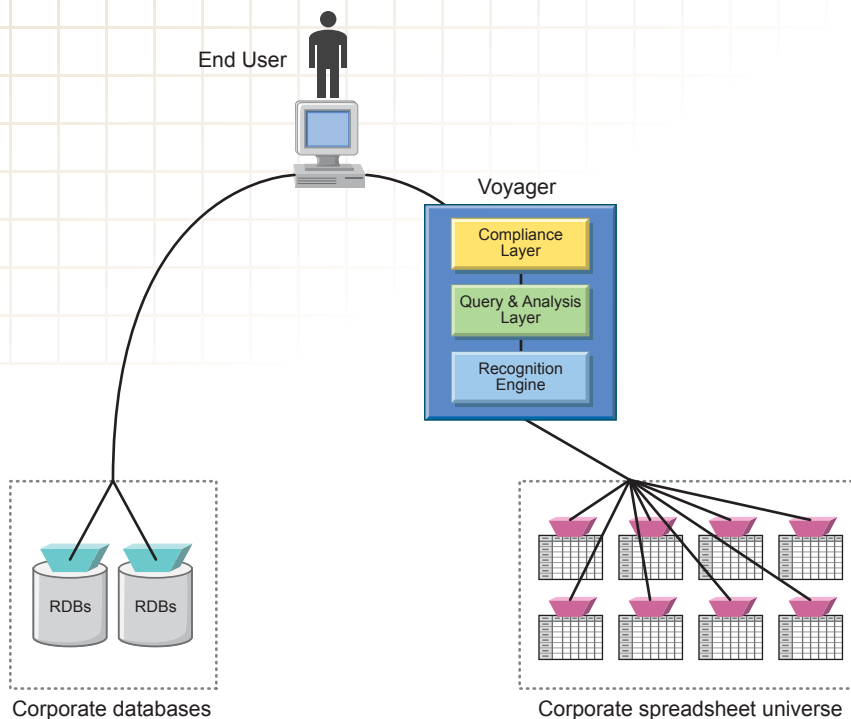
## Reduce Errors, Increase Compliance and Productivity in Enterprise Spreadsheets

Analyze, monitor and manage all of the spreadsheets used throughout the enterprise. Regardless of how spreadsheets were created, who created them, or how many spreadsheets exist, DSSlab's Voyager can automatically and centrally ensure accuracy and compliance while increasing productivity.

Voyager is composed of three layered modules:

- **Interpretation module** - automatically interprets spreadsheet contents and optionally exports its interpretations into a relational database that can be accessed with standard relational tools
- **Query & analysis module** - provides query processing on spreadsheet contents as well as tools for navigating and analyzing collections of spreadsheets
- **Compliance module** - controls assumptions used anywhere in the spreadsheet universe linking certain cells – values or labels – to master databases or spreadsheets

Figure 1: Voyager overview



## Interpretation Module

The Interpretation Module is composed of a Recognition Engine, an Excel add-in interpretation wizard, a relational exporter and an administrative console.

The Recognition Engine is the foundation of all the Voyager modules. It is composed of a database scraper, a spreadsheet scraper, an intelligent parser and a library of spreadsheet patterns. The database scraper scans corporate databases to create a reference library of standard corporate data sources. It catalogs sources of important corporate data such as product names, organizational hierarchies and pricing information for later use in specific spreadsheets. The spreadsheet scraper scans spreadsheet contents in order to identify references to centralized, standardized corporate data such as those mentioned above. The intelligent parser uses the library of spreadsheet patterns to accurately decompose the spreadsheet contents and compare them with other spreadsheets and database contents.

The Excel interpretation wizard runs in two modes:

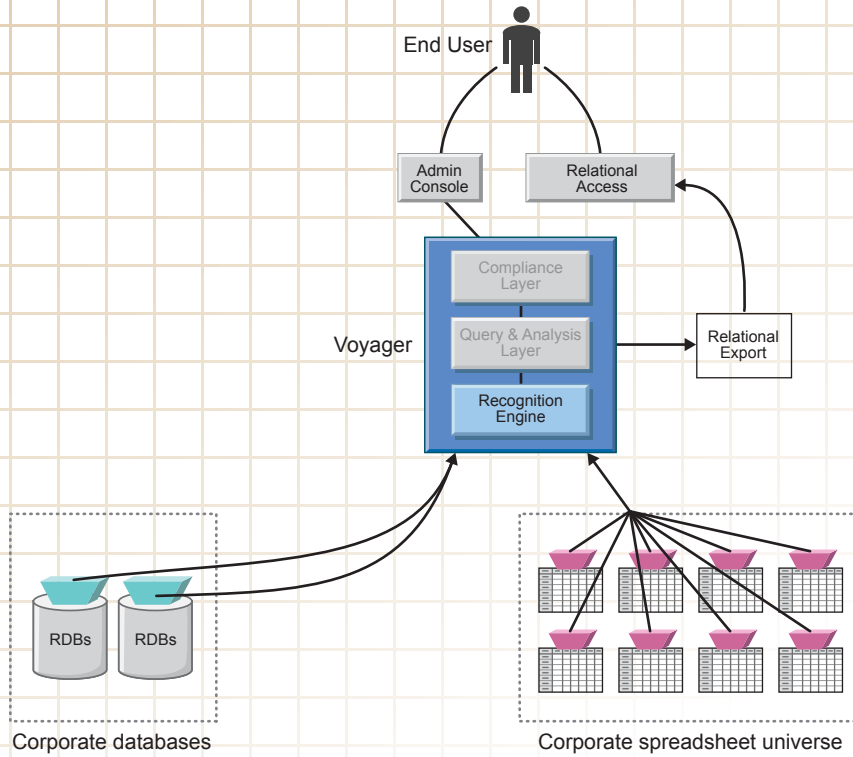
- 1) in a batch mode surveying the spreadsheets as a collection of files on network files servers or
- 2) as an add-in on every machine for which there are spreadsheets to be interpreted.

The interpretation wizard makes the process of creating error free spreadsheets dramatically easier. It sends the contents of relevant spreadsheet files – as they are being created in the case of the add-in -- to the recognition engine where the process of interpretation takes place as described above. The interpretation wizard communicates to the spreadsheet user any relevant details regarding potential errors: unrecognized data references, seemingly out-of-bounds data values, seemingly incorrect formulas. The interpretation wizard also provides power tools that let users easily provide information for those cells that the Interpretation Module was not able to automatically understand. The end user features greatly increase spreadsheet productivity and are configurable to suit the style of individual user's preferences.

The administrative console is the control center for launching the database scrapers, for viewing the contents of the recognition engine, for distributing the Excel wizards, for monitoring spreadsheet quality across the enterprise and for changing behavioral defaults for the wizards.

The exporter exports spreadsheet content into relational database schemas that can be easily queried using existing relational tools.

Figure 2: The Interpretation Module



The Interpretation Module in action

Figure 3a: Scraping database content

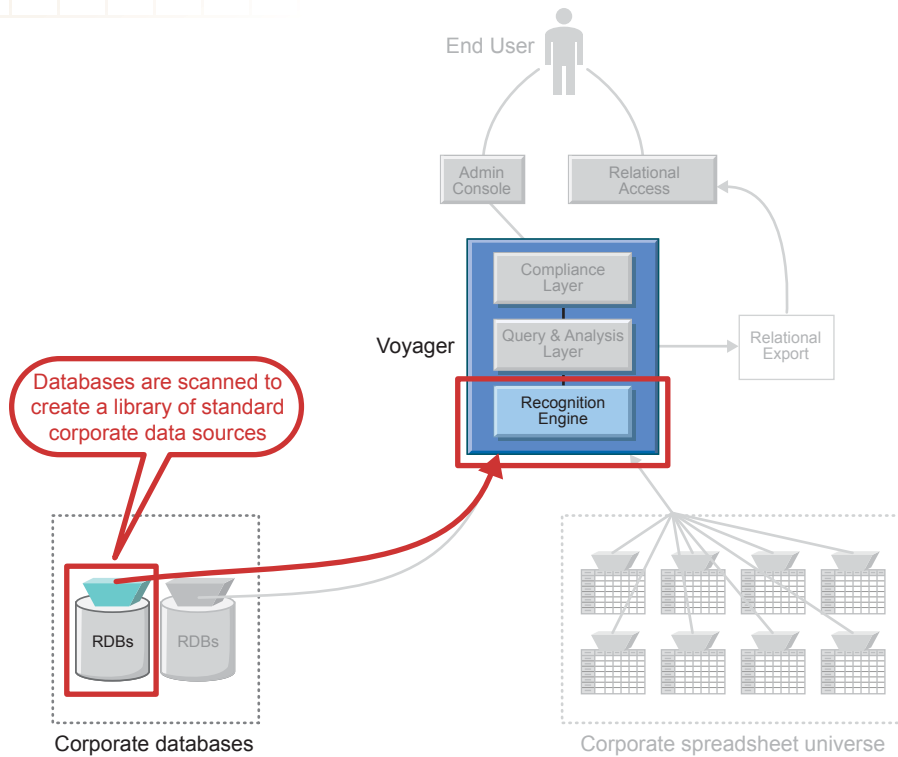


Figure 3b: Interpreting a spreadsheet

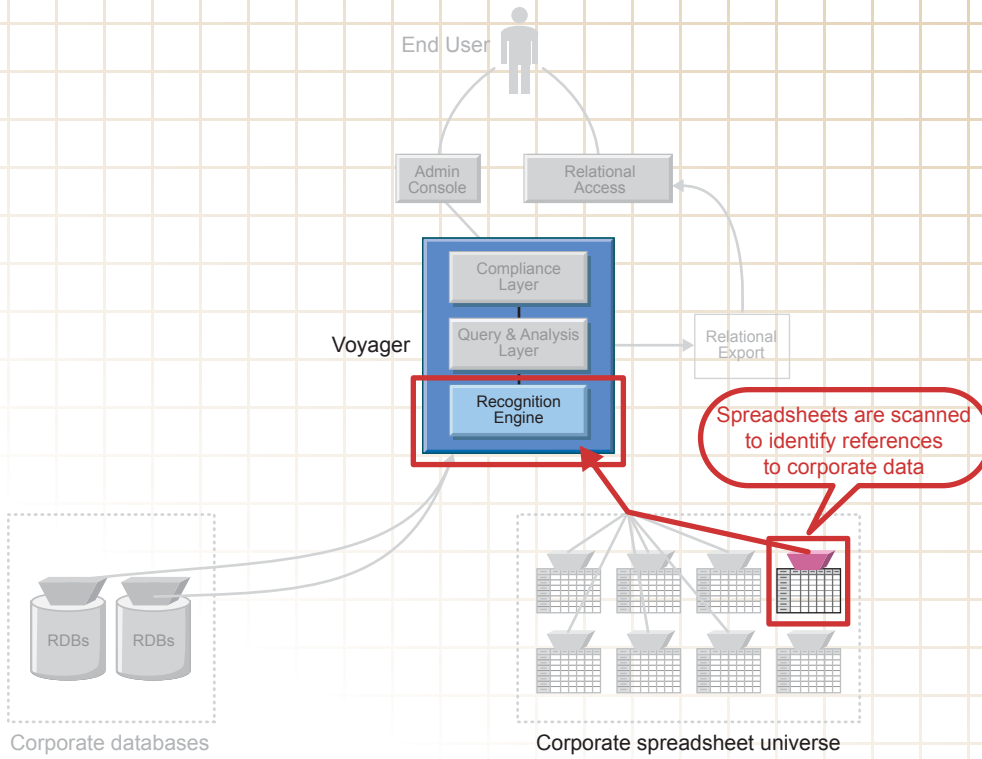
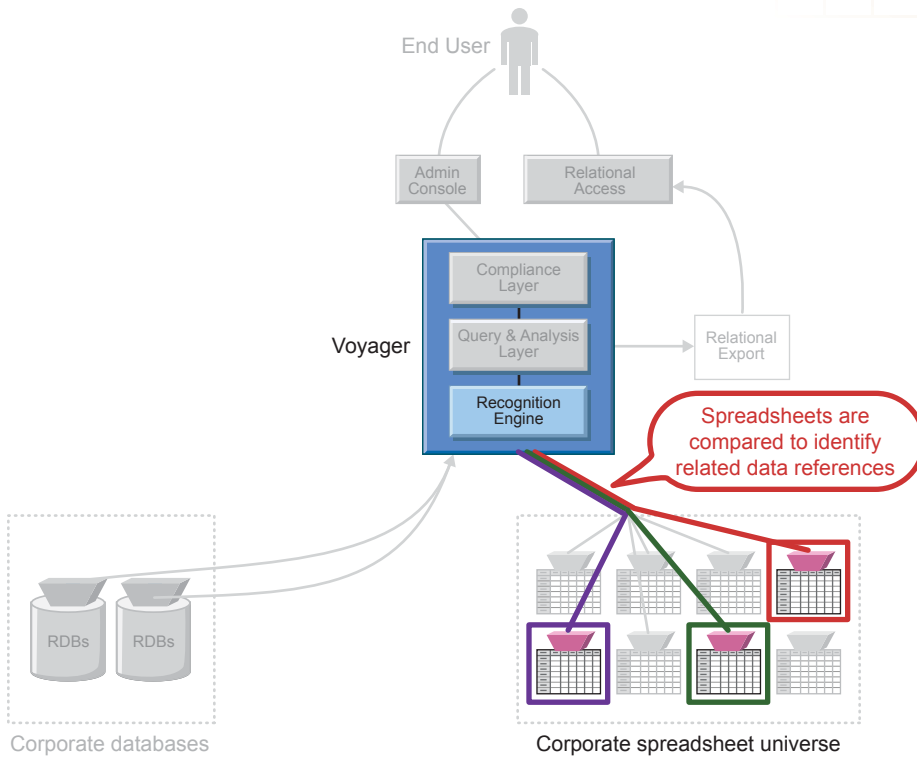


Figure 3c: Recognizing related spreadsheets



#### Interpretation Module Features:

- Automatically interprets the contents of spreadsheets
- Exports spreadsheet contents into relational database for access using standard tools
- Centralized administration and distribution for Voyager software
- Leverage existing investments in enterprise databases and spreadsheets
- Highly flexible configuration settings for individual users

#### Interpretation Module Benefits:

- Eliminates lengthy, cost prohibitive manual interpretation processes
- Supports compliance initiatives
- Increases spreadsheet productivity and accuracy

## Query & Analysis Module

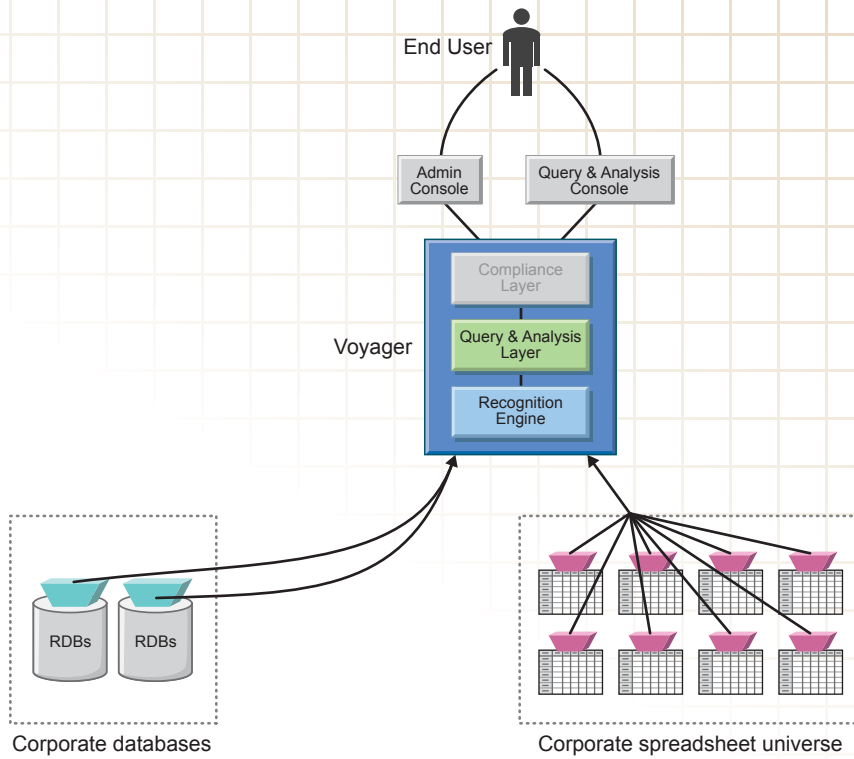
The Query & Analysis Module is composed of the Interpretation Module plus a query processing layer, and a suite of front-end tools for navigating and analyzing the contents of a universe of spreadsheets. With these tools users can understand their spreadsheet universe better and identify potential errors or problems with these spreadsheets.

The Query & Analysis Module includes advanced, interactive visualization techniques that can help to quickly identify inconsistent cells by identifying common references across multiple spreadsheets where the spreadsheets have different values. While reviewing these displays, users can quickly zoom in and drill down on particular occurrences and see a list of all spreadsheets that are in conflict. They can also check to see if there are master values for the data items in a corporate data source.

Voyager also provides meta data queries that can be used to analyze spreadsheets in meaningful ways. Aggregate statistics can be used to analyze the number of spreadsheets by department, the number of references to specific data values and to examine which departments are using which data.

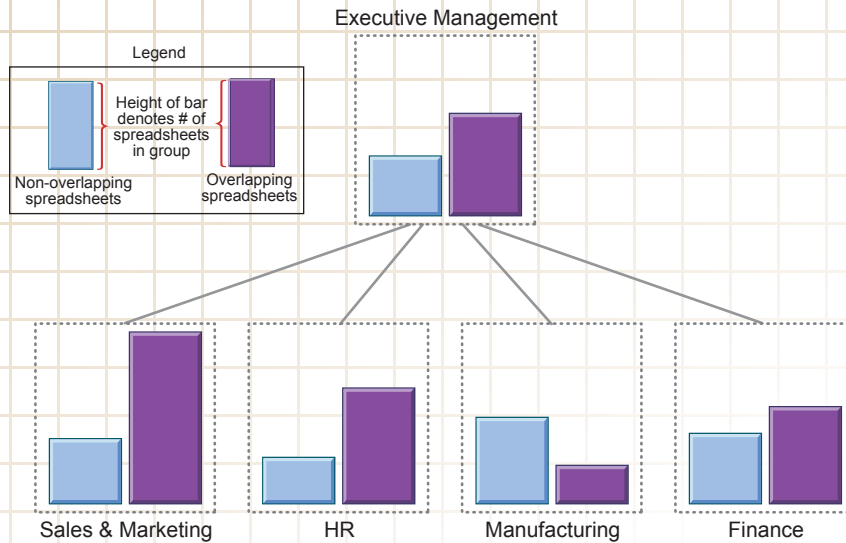
This spreadsheet meta data also provides an audit trail on spreadsheet quality and usage. Changes to the structure of the spreadsheets are recorded and can be traced over time. The audit reports themselves are useful tools in any organization's compliance efforts. The spreadsheet meta data can also be used to generate alerts about spreadsheet changes or usage. For example, if a spreadsheet structure is changed, an automatic notification can be sent to the user's manager or other compliance officer. End users can be alerted if the data referenced in their spreadsheets needs to be updated. And many other types of alerts can be configured as well.

Figure 4: The Query & Analysis Module



## The Query & Analysis Module in action

**Figure 5a: Quickly identify potential spreadsheet risk with views of the total number of spreadsheets in use and the number of overlapping spreadsheets by department**



**Figure 5b: Discover critical attributes of overlapping spreadsheets**

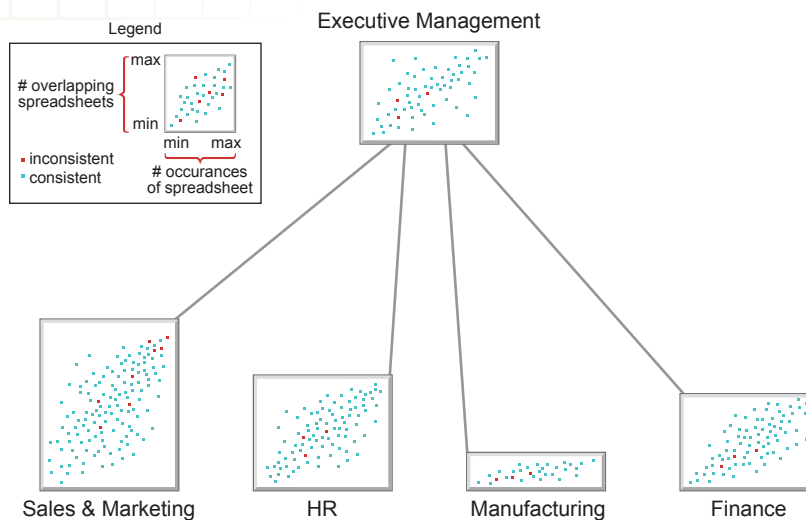
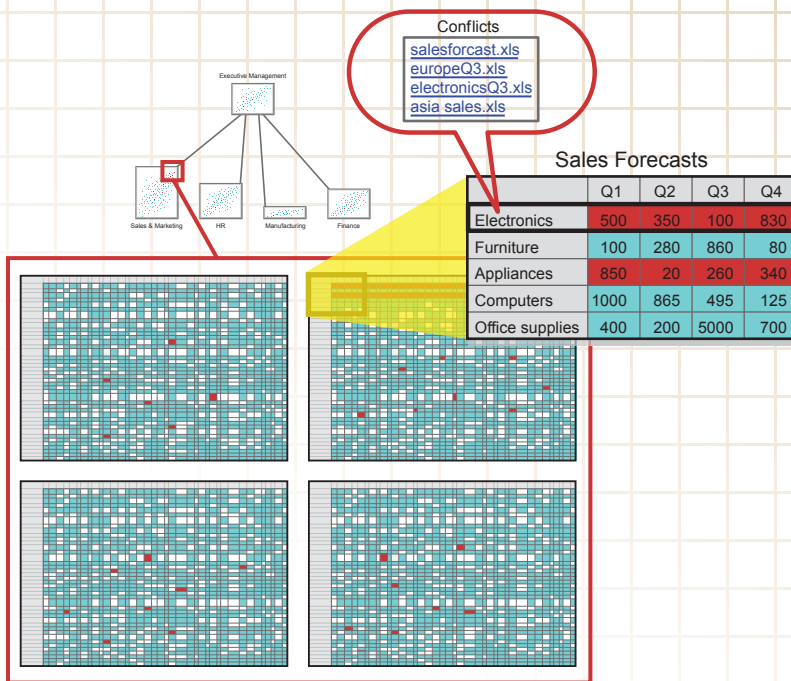


Figure 5c: Easily zoom into conflicting spreadsheet references



The Query & Analysis Module provides

- Diagnostics analyzing the entire spreadsheet universe
- Advanced visualization highlighting potential errors and inconsistencies in spreadsheets
- Bottom-up collaboration with other users to minimize redundant spreadsheets and increase productivity creating new spreadsheets
- Top-down views with interactive navigation to specific spreadsheets and their contents
- Data queries similar to queries of relational data
- Metadata queries to understand the content and structure of the spreadsheet universe
- Alerts regarding spreadsheet changes, usage and changes to underlying data
- Audits of spreadsheet contents and usage
- Spreadsheet drill through to other spreadsheets
- Spreadsheet drill through to databases

## Compliance Module

The Compliance Module combines the Query & Analysis Module, including the Interpretation Module, plus a server-based compliance layer with an Excel add-in for user level compliance.

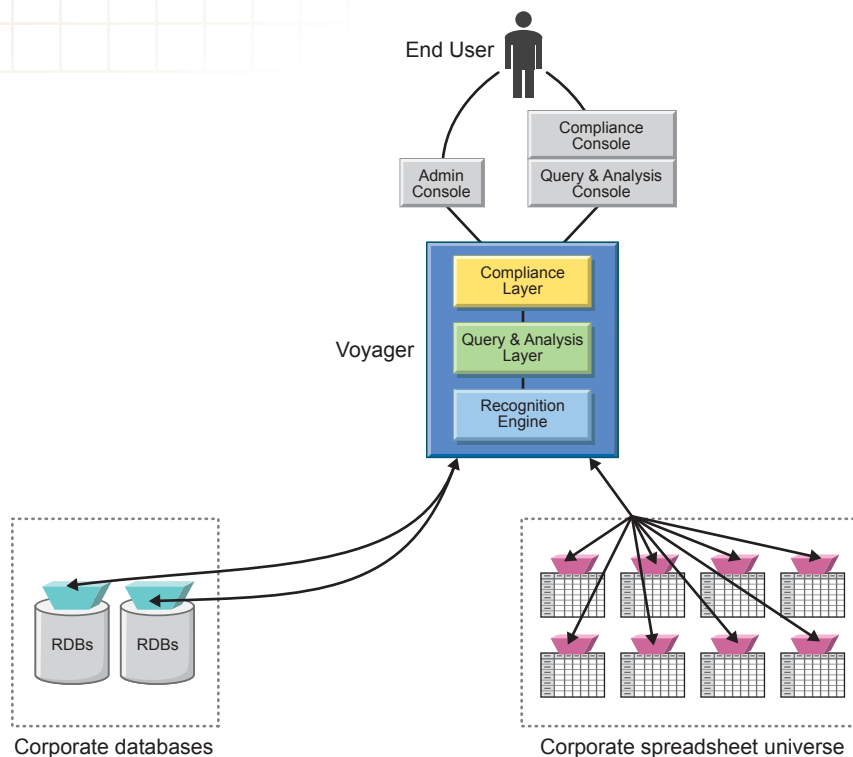
The server-based compliance layer centrally manages the contents of all the spreadsheets in an organization. Based on what was learned through the Query & Analysis Module the Enterprise Compliance Module can:

- Force spreadsheets to use a single version of the truth: assumptions, lists, economic data
- Force spreadsheets to subscribe to enterprise updates
- Force employees to reuse existing spreadsheets rather than embarking on redundant efforts

The Excel add-in helps users create automatically maintainable links between parts of spreadsheets and whatever relevant enterprise database information or “master spreadsheets” the Interpretation Module found to be available. This module not only enhances productivity by providing point and click tools for inserting data references into spreadsheets, but it also helps ensure integrity in spreadsheets by encouraging spreadsheet users to insert references to centralized data sources rather than rekeying or cutting and pasting data.

The Enterprise Compliance Module ties together all pieces of Voyager. It creates an environment that allows organizations to continue to support spreadsheet usage while maintaining the control necessary to ensure accuracy, compliance and productivity.

Figure 6: The Compliance Module



## Reduce Risk and Increase Productivity with an Enterprise Spreadsheet System

Spreadsheets are an integral part of nearly every enterprise today. With increasing attention on compliance and risk management initiatives, spreadsheets have come under intense scrutiny. In this environment, enterprises can make one of three choices:

- 1) Reduce (or eliminate) spreadsheet usage,
- 2) Impose costly, manual processes to monitor and reduce risk, improve accuracy and increase compliance with corporate guidelines, or
- 3) Adopt an Enterprise Spreadsheet System.

An enterprise spreadsheet system embraces spreadsheet usage while minimizing the risk of errors and non-compliance. Voyager is the only enterprise spreadsheet system that offers automatic interpretation of any spreadsheet in any format making it practical to centrally manage risk and ensure accuracy and compliance while increasing productivity.

For more information, please send an email to [info@dsslabs.com](mailto:info@dsslabs.com).

**DSS** lab