



WHITE PAPER

**Bringing Data Integration to the Next Level
with OneStream**

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Introduction

Today's CFOs and controllers need to manage their critical, enterprise-wide financial data and processes as effectively as possible. That data needs to be timely, accurate and easily accessible for insightful reporting and analysis to maintain a competitive edge. Accordingly, their corporate performance management (CPM) solutions need to be robust, scalable and provide full integration with their ERP, HCM, CRM and other systems.

OneStream provides market-leading data-integration and data-quality capabilities with seamless connections to more than 150 unique GL/ERP systems, on-premise or in the cloud. This includes full integration with SAP, PLeX, Microsoft Dynamics, Oracle E-Business Suite, JD Edwards, PeopleSoft, NetSuite, Infor and others. The OneStream platform can incorporate all industry standard integration capabilities, including ODBC, RESTful and SOAP web service APIs, and custom third-party communication tools.

With 100% visibility from reports to source, all-financial data is clearly visible and easily accessible. Financial processes can be automated, reports are more accurate, and the enterprise can utilize its core financial and operational data using a single interface. With full integration to ERPs and other systems, the enterprise can simplify business processes, reduce errors and inefficiencies, and allow its teams to “get back to business.”

Data Integration Requirements in CPM

Data integration is one of the most critical aspects of implementing CPM solutions. Why? Because the effectiveness of your budgeting, planning, consolidation and reporting processes is fully dependent on getting timely and accurate data from GL/ERP, HCM, CRM and other systems.

Below are some common use cases of data integration in CPM:

- Loading GL trial balances for financial consolidation and reporting
- Loading prior period actuals to seed the budget process or loading year-to-date actuals to support rolling forecasts
- Loading supplemental data for financial reporting, budgeting or tax provision
- Loading detailed employee data from HCM systems for workforce planning
- Loading detailed capital asset data from ERP systems for capital planning
- Loading project data from ERP systems for project planning
- Loading customer and prospect data from CRM systems for sales forecasting
- Drilling through to transaction details for budget vs. actuals variance analysis

Most CPM applications provide file-based integration with source systems, but key advantages come with having full, direct integration between CPM and GL/ERP and other systems. Why are those advantages important? A lack of robust data integration capabilities creates a multitude of problems, including

manual steps, wasted resources and time, risk of errors, poor financial data quality, lack of traceability and lack of auditability. If your CPM solution doesn't fully integrate with your source systems, then it's not a complete solution.

Full integration goes beyond "compatibility." How? It includes a seamless connection to key data sources and the ability to drill-back and drill-through, from the CPM platform all the way down to transactional detail in the source system. The process should be fully automated and provide 100% traceability with audit trails for data, metadata and process changes.

OneStream's Data Integration Capabilities

OneStream Software provides a market-leading CPM solution, the OneStream XF SmartCPM™ platform. OneStream XF (figure 1) unifies and simplifies financial consolidation, planning, reporting, analytics and financial data quality for sophisticated organizations.

Deployed via the cloud or on-premise, OneStream's unified platform enables organizations to modernize Finance, replace multiple legacy applications and cloud-based point solutions, and reduce the total cost



Figure 1: OneStream XF SmartCPM™ Platform

of ownership of financial systems. What does all of that mean for Finance teams? It means OneStream unleashes them to spend less time on data integration and system maintenance – and more time focused on driving business performance.

OneStream XF includes advanced data integration capabilities and is the only CPM platform in the industry with integrated financial data quality. Financial data quality isn't an option – it's a requirement in today's corporate reporting environment where errors or omissions in financial statements can result in compliance penalties, loss of confidence by stakeholders and often a reduction in market value. OneStream XF's financial data quality provides strict controls to deliver confidence and reliability in the quality of your data.

OneStream's data integration capabilities span many different types of data, including the following:

- Trial Balance Summaries
- Transaction Detail
- Statistical/Non-financial Data
- Employees, Jobs and Positions
- Leads, Opportunities
- Users and User Security
- Chart of Accounts
- Dimensional Hierarchies
- Operational Metrics
- Currency Rates, and More

Data can be integrated into OneStream XF via several methods. The most popular – and most powerful – is the “Direct Connect” approach, which enables OneStream to directly query source systems, load the data into OneStream and drill-through to transaction system details.

In addition to Direct Connect, file-based sources can be loaded from spreadsheets compiled by contributors, delimited files from sources without an open interface, or third-party data to enrich the analysis or driver calculation. These data files can be loaded through the interface as part of a workflow and included in the data validation sequence.

Integrated Financial Data Quality Management

The loading, mapping and transforming of data from source systems to CPM solutions can be cumbersome and fragmented without highly connected and business user-managed tools. Data movement may be reliant on IT resources that are not knowledgeable on the CPM model and the transformation and validations that must occur. This is even more problematic without the transparency and controls needed by the business to support compliance. OneStream lets you avoid these issues.

In fact, OneStream has strong foundations in the data quality area that allow for unparalleled flexibility and visibility into the data loading and integration process. OneStream's financial data quality is not a module or separate product, but part of the core OneStream XF platform – providing strict controls to deliver confidence and reliability in the quality of your data. How? Data quality risk is managed using fully auditable system integration maps, and validations are used to control submissions from remote sites. Data may be loaded via direct connections to source databases or via any file format. Audit reports can be filtered based on materiality thresholds – ensuring one-time review at appropriate points in the process.

Below are some key features of OneStream's integrated financial data quality:

- Ability to read any GL trial balance file or report in any format with NO manipulation
- Direct integration for any open ERP or data source
- Pre-consolidation mapping and intersection validation
- Post-consolidation validation and confirmation
- Ability to manage the close by requiring completeness and accuracy
- Bi-directional status updates of data collection and cube changes
- Email or text error alerts
- Complete audit trails from 10-K/10-Q
- Drill-through to source GL or ERP data
- Drill-downs from calculated and aggregated accounts
- Phased submissions

OneStream Direct Connect

OneStream XF can connect and import data from any external system through the use of a direct database connection to the external system. This means data can be imported and processed all the way through the workflow certification process – without ever having to use a source system extract file. OneStream XF Integration Connectors offer direct integration with any open GL/ERP or other source system. Below are a few of the main advantages of the Direct Connect approach:

- Deliver fast and efficient direct-to-source system integration processes
- Drill-down, drill-back and drill-through to transactional details, including journal entries
- Deliver direct integration with available drill-back built for any open ERP, including Oracle, PeopleSoft, JDE, SAP, Infor, Microsoft AX/Dynamics and more

Integrated Financial Quality Management at a Glance



Improve Integrity

Powerful pre- and post-data loading validations and confirmations provide complete confidence in the certification process.



Increase Transparency

100% transparency and audit trails for data, metadata and process change visibility from report to source.



Enhance Productivity

Guided Workflows intuitively move business users through the entire data collection, integration and reporting process.



Simplify Data Integration

Direct integration to any open GL/ERP system, including Oracle, SAP and Microsoft Dynamics, with powerful pre-built XF integration Connectors with drill-through capabilities.

OneStream's Direct Connect feature uses Connector Business Rules defined in the XF solution via VB.NET to generate and execute queries against source tables or views to pull data into the OneStream Stage engine for mapping and transformation. Connectors can also be configured to call exposed Web Services from source systems using SOAP or REST APIs. Once data has been loaded into the OneStream Stage, data can be mapped, transformed and summarized for loading to the financial model. The data in Stage remains, providing drill-back capabilities from the user interface to review the mapping and transformation that was applied to the sourced data.

These same Connector Business Rules may also be configured to provide drill-through to source capabilities. Drill-through paths combine the user's current point of view – such as account, entity, product or other potential attributes known about the data point – to request detailed data from the data source. This data could be transactional events that made the period end balance, an invoice image or other data in the source that was not loaded into the CPM solution.

Drill-Back, and Drill-Through to Source

The drill-back and drill-through end user process is not delivered in a clunky third-party tool, portal or interface. Instead, the OneStream drill-back and drill-through (figure 2) all happens in the comfort of the OneStream XF standard user interface, so the end user never has to exit OneStream to see the transactional details of the ERP. Why does this matter? Ease of use is paramount to ease of adoption and acceptance by end users who demand simplicity.

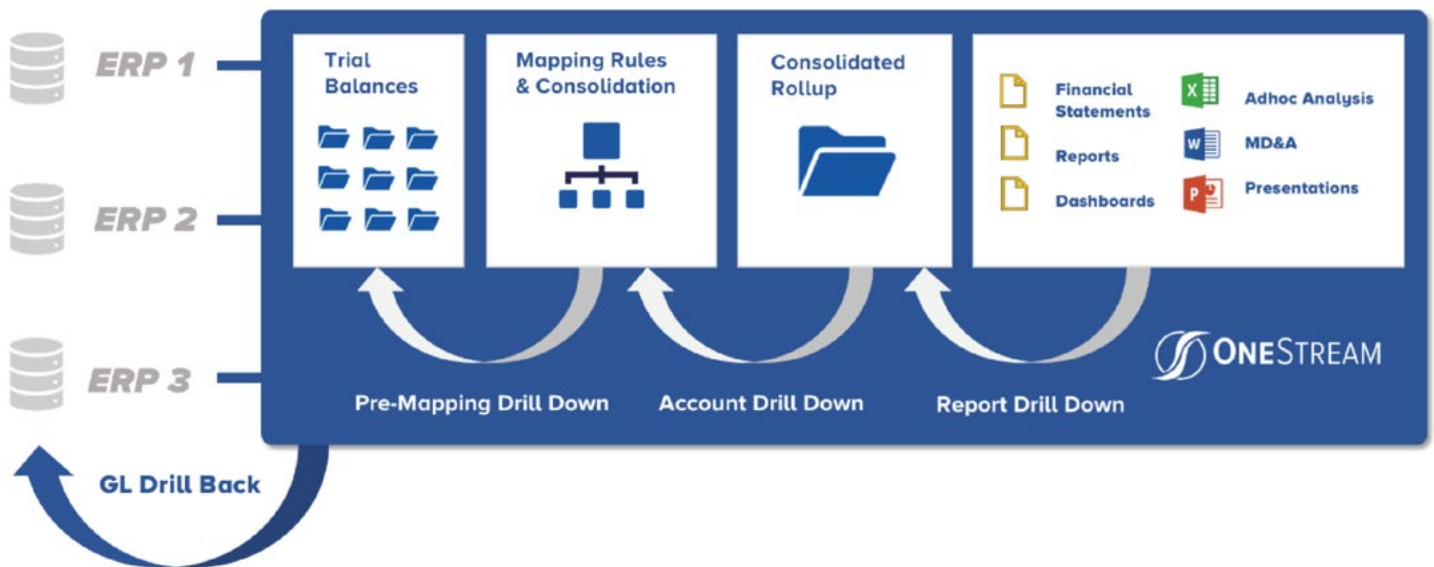


Figure 2: OneStream XF Drill-Back and Drill-Through

The OneStream Integration Connector can move from any table to any other table. Thus, the series of clicks that would normally be necessary for drilling through to a specific transaction in an ERP system can be augmented with a one-click process in OneStream to immediately get the most relevant details. One customer needed to go from OneStream data directly to cancelled checks, which would have been

20-plus clicks in the ERP. OneStream simplified that process and gave the client a menu of choices on the drill-through that quickly took the end user directly to the cancelled checks.

OneStream Drill-options don't stop at just displaying data in data grids, either. Other options include displaying a web page via a passed URL, displaying files, text messages and more.

Complete Transparency and Auditability

OneStream XF reduces internal control risk with better audit trails, drill-down and drill-back to data sources, along with complete process and change visibility. Notably, OneStream XF provides 50-plus standard audit reports on changes to data, metadata, rules, maps, etc. It also always knows who does what, when and how. In addition, as part of the workflow, OneStream XF offers the opportunity to capture process control questionnaires to confirm the process and certify the results at every level of collection and consolidation.

The OneStream Stage Database (figure 3) is the first stop for GL trial balances, supplemental data and other detail, such as Sales data. Mapping and pre- and post-load data validation checks are performed to ensure accuracy and completeness before the data is loaded into the appropriate financial model or cube. Guided Workflows ensure end-to-end process visibility. When source data is updated, or when users make a change in the consolidation cube, Workflow status detects the change and alerts users to the proper state of data quality.

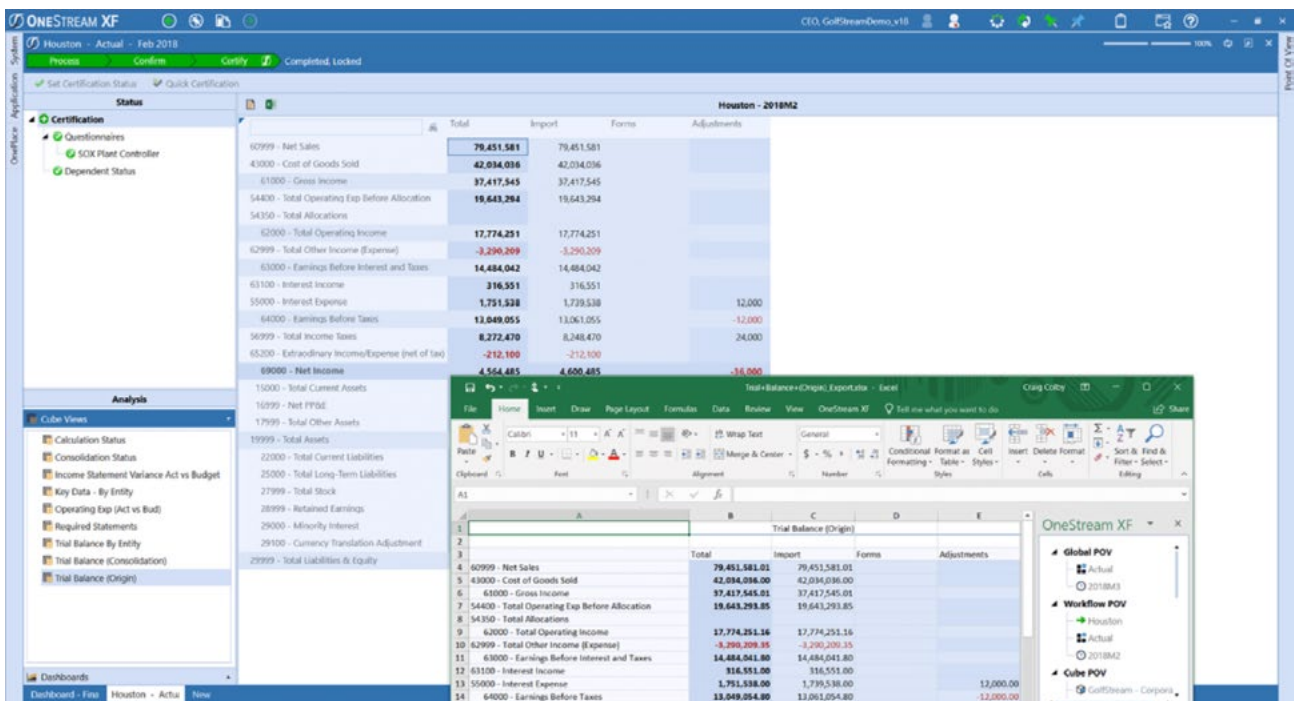


Figure 3: OneStream XF Stage Database

The OneStream XF solution supports Sarbanes-Oxley (SOX) requirements with strict process controls, complete transparency and certification questionnaires.

Below are some examples of the built-in process controls:

- Data and process certification and sign off
- Audit trails from 10K/10Q to GL source account and GL trial balance report or file
- Automatic archival of all supporting files and documents
- Document attachments and textual notations by cell, data unit or multiple data units are archived for material disclosures
- Supports SOX 302 and 404 certification questionnaires to identify financial process weaknesses prior to the OneStream XF consolidation process

Guided Workflows

Overarching Guided Workflows (figure 4) protect business users from complexity by guiding them uniquely through all data management, verification, analysis, certification and locking processes.

Below are some of the advantages built into OneStream XF's Guided Workflows:

- Delivery of intelligent analytics within each workflow step
- Separate input channels for data protection and transparency
- Phased workflow process for all data collections, if desired
- User and process aware
- Unified workflow engine that delivers a 100% reliable process status

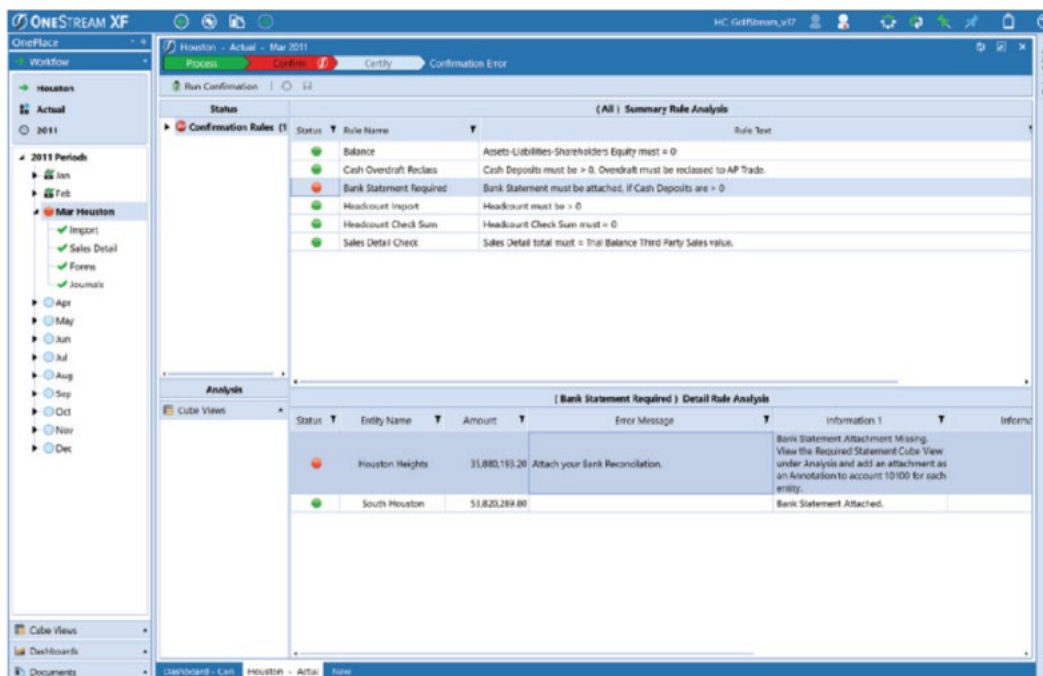


Figure 4: OneStream Guided Workflows with Confirmation Rules

SAP Integration

OneStream XF provides direct integration with multiple SAP data sources – including SAP R/3, ECC, BW and S/4 HANA – with drill-through capabilities to transactional details. Most of OneStream’s SAP clients say OneStream integrates with SAP ERP better and easier than SAP’s CPM solutions integrate with SAP.

Over 100 SAP ERP customers use OneStream’s SmartCPM™ platform, and it can provide a powerful bridge platform for customers considering a conversion from R/3 or ECC to S/4 HANA. Because OneStream can integrate with and map disparate data sources and charts of accounts, it provides a consistent platform for financial consolidation, reporting, planning and analysis – before, during and after a multi-year migration to S/4 HANA. It also addresses the ongoing challenge that many organizations face in integrating data from non-SAP systems that will inevitably exist at subsidiaries or acquired companies. Some of the key capabilities of OneStream’s SAP integration include the following:

- Easily invoke BAPIs and function modules
- Send and receive IDocs
- Support RFC and SOAP, which allows integration with any modern SAP NetWeaver architecture
- Read BW objects (BEx queries) with own API
- Read SAP tables directly via RFC
- Generate and execute ABAP code on the fly
- Control transactions via batch input

OneStream’s Data Integration in Action

Hundreds of OneStream customers are already reaping the benefits of full data integration, enabling their CPM processes to work seamlessly with their GL/ERP systems and processes. Here’s some examples of the benefits they’re achieving.



“By automating SAP feeds using OneStream connectors, users can now have the visibility and drill-back capabilities to detailed transactions within SAP, something we simply could not accomplish in our previous environment.

OneStream XF delivers more detailed reporting and analytics in one unified product and application,” says Rahul Nanvati, Director of Financial Systems, Evoqua.



“We could not be happier with the unified OneStream XF solution and the powerful integration capabilities. The system is fast, powerful and lets us get to any transaction in seconds,” says Tim Foley, Controller at AAA Insurance. “We now have one system that is giving us significantly improved access to our data with flexibility in reporting and analysis. We also have more transparency, visibility and control over our business.”

THE CARLYLE GROUP

GLOBAL ALTERNATIVE ASSET MANAGEMENT

With OneStream, Carlyle leverages the direct connect with PeopleSoft GL to load project-level actuals, and is now able to budget and reforecast at both the legal entity and project level. Leveraging the People Planning solution from the OneStream XF MarketPlace, along with a direct connect to Workday, Carlyle now has detailed modeling capabilities for new positions, promotions, transfers, and other adjustments.



Victaulic shortened its close process by providing the consolidation team a workflow that runs confirmation rules on trial balance data, override data and roll-forward data to ensure the quality of company-wide results. OneStream XF provided direct mapping to several source systems, thus streamlining data integration and providing a speedy consolidation process, saving time and effort, and creating faster and more user-friendly reports.

Conclusion

Effective data integration is a critical component of any successful CPM implementation – ensuring the timeliness and accuracy of financial and operational data being used for financial reporting, planning and forecasting. OneStream provides a market-leading CPM platform with powerful, integrated financial data quality and integration capabilities. Ultimately, through advanced data integration, drill-through, mapping and process controls functionality, OneStream delivers the most complete financial data quality solution ever developed. As a result, financial data quality, consolidations and budgeting work as a team to ensure that all the data is timely and accurate. OneStream XF takes data integration to a new level thanks to the benefits below:

- Simplifies data collection, consolidation and certification
- Reduces costs of compliance, internal controls and audit requirements
- Improves confidence in the quality of financial results
- Provides consistency and accuracy with complete transparency

To learn more, visit our website at www.onestreamsoftware.com or contact your local OneStream Software account representative.

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