

Considerations in Building a Unified Financial Backend System

As your company grows, you inevitably need to evaluate building or buying a unified financial backend system. This document will help you evaluate some of the key components and considerations to ensure the project is future-proof and successful.

Some warning signs that you may need to start evaluating your financial backend system strategy:



Your executive wants to grow faster, expand to new geographies, and launch new products. However, the current systems will take months to modify in order to support these key initiatives.



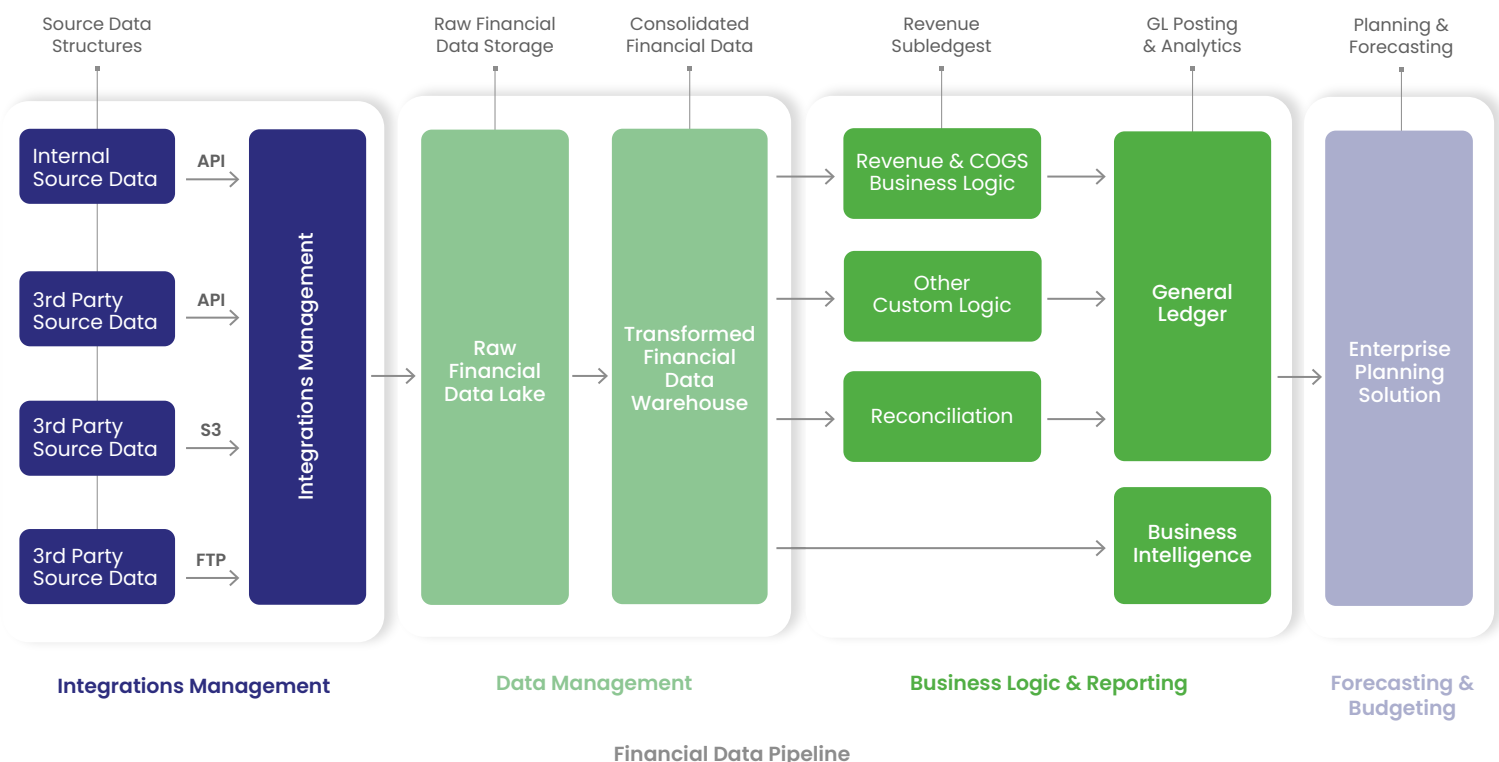
You are evaluating IPO readiness and SOX has become a top concern due to lack of systematic controls and data availability.



Auditors are highly concerned with manual spreadsheet processes as they pose a high risk of material misstatement.

Key Components of a Unified Financial Backend System

There are four major technology layers to consider when building a unified financial backend system: (1) Integrations Management, (2) Data Management, (3) Business Logic & Reporting, and (4) Forecasting & Budgeting. Some components should be built in-house, while other components should be outsourced to a SaaS specialist. We will evaluate considerations for each of them.



1 Integrations Management Layer

Component	Consideration	Potential Cost
Data Connectors	Net New: High growth businesses frequently add new payment processors as the business expands into new geographies or business models.	One-time Engineering Man Hours
	Maintenance: API versions are updated frequently and require ongoing maintenance.	Ongoing Engineering Man Hours
	Performance: Ingesting large amounts of data takes a significant amount of time. Optimizing data ingestion is critical to minimize downstream impacts.	Ongoing Engineering Man Hours
Scheduling	Race Conditions: Data dependencies should be considered to prevent race conditions and/or data integrity issues.	One-time Product & Engineering Design
	Backfill: Data providers may delay publishing data, which would require active monitoring and ad-hoc data backfills.	Ad-Hoc Engineering Man Hours

2 Data Management Layer

Component	Consideration	Potential Cost
Raw Financial Data Lake	Storage: Storage capacity and costs depend on how much historical data Finance needs to reference and the level of detail.	Ongoing Storage and Database Costs
	Auditability: Raw data must be able to be traced back to its source.	SOX and auditors would need to trace data to the source
Consolidated Financial Data Warehouse	Data Model Design: Each data source will have its own data schema; normalizing them into a single data schema is critical before the data can be processed.	One-time Product & Engineering Design
	Auditability: Transformed data must be able to be traced back to its source.	SOX and auditors would need to trace data to the source
	Scalability: Selecting the right database is important to scale with anticipated growth of financial data volumes.	Ongoing Storage and Database Costs
	Storage: Storage capacity and costs depend on how much historical data. Finance needs to reference and the level of detail.	Ongoing Storage and Database Costs
	Security: Security compliance and controls is critical given the sensitivity of financial data.	SOX and auditors would need to review security controls

3 Business Logic & Reporting Layer

Component	Consideration	Potential Cost
Subledger	<p>Accuracy: Subledger posts summarized journal entries into the General Ledger. Accounting must be able to trust the accuracy of reports.</p>	If any issues is uncovered after the fact; financial restatement is very costly
	<p>Timeliness: Reports must be generated on the first day of each month in order for accounting to meet month-end close deadlines.</p>	Delays will impact key decisions to be made by Executives and Board
	<p>Event Sequence: The order of data processing and journal entry creation is critical; however, data received from source systems may be out of order.</p>	One-time Product & Engineering Design
	<p>Change Requirements: New product launches and other business changes require working with accounting to update business logic and journal entry automation.</p>	Ad-Hoc Engineering Man Hours
	<p>Compliance: Changing accounting standards (e.g. ASC 605-606) will require reporting redesign.</p>	Ad-Hoc Engineering Man Hours
	<p>Matching Principle: GAAP requires COGS to be recognized in the same period as related revenues.</p>	One-time Engineering Man Hours
	<p>Differential Update: Source data may only store the latest state of data. For instance, if a transaction was \$10 last month, but it became \$5 this month, you will need to capture this differential in order to properly capture the accounting impact.</p>	One-time Product & Engineering Design
	<p>System Reconciliations: Accounting will need to understand and explain any deltas between different systems.</p>	One-time Engineering Man Hours
	<p>UI & Reporting: Common reports your accounting team may need:</p> <ul style="list-style-type: none"> ■ Deferred Revenue Waterfall ■ A/R Aging ■ Matching & Recon Reports 	One-time Engineering Man Hours
	<p>User Access Control: Users should have either admin or viewer access to data within the subledger.</p>	SOX and auditors would need to review security controls
<p>Controls: Controls must be in place to ensure the data is reliable and is in compliance with SOX, GAAP, etc.</p>	SOX and auditors would need to review security controls	
<p>Auditability: All journal entries and data must be auditable and traceable.</p>	SOX and auditors would need to review security controls	

Component	Consideration	Potential Cost
General Ledger Posting	Locking Periods: Accounting needs the ability to close or “lock” a period. Any programmatic changes that may impact historical periods need to be properly captured in the current period. Closed or “locked” periods cannot be altered.	One-time Product & Engineering Design
	Traceability: Journal entries posted to the General Ledger must be supported by transactions within the subledger and are easily traced.	SOX and auditors would need to trace data to the source
BI Integration	Data Format: Ensure proper formatting of data to pipe back to your BI solution.	One-time Engineering Man Hours
	Data Relationships: Make sure proper relationships are set up so management reports can be created.	Ad Hoc Data Analyst Man Hour
	Metadata: Metadata contains important information required for management reporting.	One-time Product & Engineering Design

Leapfin note: Highlighted considerations are very important to address for Finance & Accounting

