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FDIC Resolution & Regulatory Submissions: Traceable, Reconciled Data Pipelines for Large Financial Institutions

Ravi Kumar Vallemoni^{1*}

¹PhD ¹Enterprise Information Architect, Finance/Banking, Bank of America, Charlotte, North Carolina, USA

²Master of Computer Application (MCA), Finance/Banking, Bank of America, Charlotte, North Carolina, USA

*Email: vallemoni.ravikumar@gmail.com

Abstract

Introduction: The post 2008 regulatory environment demands that Global Systemically Important Banks (G-SIBs) and Large Financial Institutions (LFIs) submit data intensive "living wills" under the Dodd Frank Act. Regulators like the FDIC now require not just numerical accuracy but full traceability, reconcilability, and audit ready lineage across complex enterprise data environments. Traditional reporting architectures fragmented, manual, and opaque frequently result in reconciliation breaks, delayed submissions, and extensive regulator follow up. This paper addresses that gap by presenting a unified, governance aligned pipeline architecture purpose built for FDIC regulatory demands.

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Methodology: The proposed architecture is structured as a multi-layered pipeline comprising five core components: a standardized ingestion layer that normalizes data from source systems; a controlled reference data hub for legal entity hierarchies, product taxonomies, and counterparty classifications; a transformation and aggregation layer using deterministic, parameterized business rules; a reconciliation and control layer performing dual-control checks (source to ingestion, ingestion to transformation, aggregation to output); and a regulatory output layer that generates submission ready files in regulator mandated formats. A governance aligned control framework enforces segregation of duties, formal change management, and submission certification accountability. A multi-dimensional testing matrix spans unit, integration, regression, scenario, and parallel run testing to ensure technical correctness and regulatory alignment throughout the pipeline lifecycle.

Results & Discussion: Enterprise scale implementation of the proposed architecture produced three key measurable improvements

65% reduction in manual adjustments - Controlled ingestion, deterministic aggregation logic, and multi-layer reconciliations eliminated the need for ad hoc spreadsheet interventions, improving upstream data quality and operational consistency.

53% reduction in submission cycle time - Submission timelines decreased from approximately 15 days to 7 days per reporting interval. Embedded reconciliations enabled earlier error detection, faster root cause analysis through end to end lineage, and streamlined governance workflows.

50% reduction in regulator queries - Improved data lineage, version controlled logic, and comprehensive documentation enabled faster and more accurate responses to supervisory questions, reducing follow up inquiries significantly.

From an audit perspective, both internal and external controls confirmed the completeness of end to end data lineage, traceable back unambiguously to source

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systems. Supervisors reported enhanced transparency and defensibility during examination reviews. Operational efficiency improved by reducing key person dependencies, enabling subject matter experts to shift focus from daily reconciliation tasks to higher value analytical activities.

Conclusion: This paper demonstrates that reconciled, traceable data pipelines are foundational to sustainable FDIC regulatory compliance, particularly as submission frequencies and supervisory expectations continue to rise. The proposed architecture combining centralized reference data, dual-control reconciliations, deterministic aggregation, and formal testing enables institutions to produce audit ready, reproducible regulatory outputs at scale. Looking ahead, the framework can be extended to support real time supervisory reporting, cross jurisdictional resolution planning, and integration with emerging RegTech capabilities including AI-driven anomaly detection and distributed ledger provenance tools. Institutions adopting this model will be better positioned to meet increasing regulatory demands while reducing operational risk and strengthening regulator trust.

Keywords: FDIC resolution planning, Regulatory reporting, Data lineage, Reconciliation controls, Audit ready pipelines, Financial data governance, Traceable data pipelines, Deterministic aggregation logic, RegTech, Dodd-Frank compliance, Large Financial Institutions (LFIs), Global Systemically Important Banks (G-SIBs), BCBS 239, Data quality management, End to end lineage, Reference data management, Submission cycle optimization, Supervisory auditability, Regulatory data engineering, Living wills

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