

Financial Risk Reimagined: Revolutionizing Netting Schedule Reporting with Intelligent Automation

The Client

The Client, established as part of the Federal Home Loan Bank System by the US Federal government, is a wholesale bank created to meet community credit needs. As a key player in economic stability and housing finance, the Client provides reliable funding and liquidity solutions to its member financial institutions. The Client plays a vital role in supporting community financial institutions and fostering affordable housing initiatives. The Client members include commercial banks, credit unions, savings institutions, industrial loan companies, insurance companies, and community development financial institutions across the US West Coast.

The Challenge

The Bank's Treasury and Risk Management team faced significant operational challenges in their critical Netting Schedule Report process - a fundamental component of their counterparty risk management and collateral optimization framework. This report, essential for regulatory compliance and internal risk assessment, was hindered by a complex, multi-step manual workflow:

Data Collection Complexity

- Manual extraction of Master Balance Sheet data from Workday ERP
- Time-consuming collection of external financial data from disparate sources
 - LCH Files containing counterparty details, product classifications, trade IDs, and notional values received via email
 - HACS Files with interest receivables/payables, funding metrics, and hedging positions retrieved from SQL databases

Resource-Intensive Compilation Process

- Laborious compilation of net exposure details across multiple counterparties
- Complex reconciliation of derivative settlements and securities financing transactions (SFTs)
- Manual application of sophisticated financial models, including VLOOKUP functions, pivot table analysis, and liability calculations

Risk Calculation Inefficiencies

- Time-consuming determination of notional exposure, margin call requirements, and collateral positions
- Manual risk-adjusted reconciliation processes including:
 - Net liability calculations for both secured and unsecured financing arrangements
 - Interest rate adjustment computations and cash collateral management
 - Derivative and margin balance reconciliation across counterparties

Operational Impact

- Extended processing timelines delaying critical decision-making
- Increased potential for human error in calculations and data entry
- Inefficient resource allocation with skilled financial professionals spending excessive time on manual tasks
- Delayed report distribution affecting downstream compliance workflows
- Elevated operational risk due to potential miscalculations of financial risk exposure

These challenges not only affected operational efficiency but also potentially impacted the Bank's ability to optimize collateral utilization and accurately assess counterparty risk exposure in a timely manner.

The Solution

The Bank implemented a holistic automation solution leveraging UiPath's Robotic Process Automation (RPA) technology, transforming their manual Netting Schedule Report process into a streamlined, efficient workflow. The solution implemented included:

The assessment phase included:

Automated Data Acquisition & Authentication

- Developed a secure bot with enterprise-grade credentials management to:
 - Authenticate and navigate within the Workday ERP environment to extract the Master Balance Sheet with complete accuracy
 - Access and retrieve LCH files from designated email repositories using automated inbox scanning and attachment identification
 - Execute optimized SQL queries to extract HACS financial data with enhanced data integrity controls

Intelligent Financial Data Processing

- Implemented advanced data transformation algorithms to:
 - Dynamically populate the standardized Netting Schedule Report template with validated financial metrics
 - Apply complex financial calculations with increased precision:
 - Multi-counterparty net exposure computations with real-time validation
 - Accurate interest accrual calculations and margin adjustment processing
 - Comprehensive notional derivative settlement determinations
 - Rules-based collateral call validation aligned with specific ISDA agreement parameters

Integrated Risk Assessment Framework

- Created seamless database integration capabilities to:
 - Extract and consolidate investment positions across multiple asset classes
 - Synchronize margin balances with collateral positions for comprehensive risk evaluation
 - Generate detailed securities lending summaries with transaction-level traceability
 - Produce automated trade clearing reports with exception highlighting

Automated Compliance & Reporting

- Established an end-to-end reporting solution including:
 - Intelligent net liability adjustment calculations with built-in validation controls
 - Automated cross-asset risk analytics with configurable risk thresholds
 - Secure distribution of the finalized Netting Schedule Report to authorized stakeholders
 - Comprehensive audit trail creation for regulatory compliance verification

This robust automation solution transformed a manual, error-prone process into a reliable, efficient workflow system that significantly enhanced the Bank's treasury operations and risk management capabilities.

Value Delivered

The automation solution delivered transformative results for the Bank's Treasury and Risk Management operations, creating significant operational efficiencies while enhancing risk management capabilities across the organization:

- **95% Reduction in Report Processing Time** – Automated reconciliation reduced report preparation time from 4-5 hours to just 15 minutes, enabling same-day decision-making for treasury operations.
- **Enhanced Accuracy & Compliance** – Eliminated human data entry errors and calculation inconsistencies, ensuring strict regulatory compliance with Basel III requirements and ISDA netting rules while maintaining comprehensive audit trails.
- **Optimized Counterparty Risk Management** – Provided real-time visibility into net payable/receivable positions across all counterparties, enabling proactive risk mitigation and more strategic collateral allocation decisions.
- **Improved Financial Control & Reporting** – Established systematic validation of margin calls, collateral adjustments, and risk-adjusted trade settlements, enhancing financial governance and reducing operational risk exposure.
- **Scalability & Reliability** – Implemented a robust automation framework capable of handling large-scale financial data processing without manual intervention, ensuring consistent, timely risk assessment even during peak trading periods.

About Optteamix

Optteamix is an AI-powered technology services company specializing in AI, Application Development, Robotic Process Automation (RPA), DevOps, Enterprise Mobility, Test Automation, and Global Capability Center (GCC) operations. Guided by our higher purpose—"Simplifying Success"—we deliver transformative solutions that help organizations scale efficiently and thrive. Headquartered in Denver, Colorado, we operate a wholly owned delivery center in Bengaluru, India.