

Transforming a Top 5 Global Financial Institution's IT Procurement Reconciliation through AI-Powered Contract Analysis with AutoReports and Blockify



Executive Summary

Challenge: A Top 5 Global Financial Institution faced a critical operational bottleneck: reconciling storage maintenance contracts across global data centers required three months of manual effort per cycle, involving spreadsheets, VLOOKUPS, phone calls, and coordination across five disparate internal systems—consuming valuable IT resources and delaying contract renewals.

Solution: Intel and Iternal Technologies deployed AutoReports™ powered by Blockify® to automate the extraction, normalization, and reconciliation of PDF order forms and

quotes against 100,000 internal asset records across global data centers, transforming a fragmented manual process into an intelligent, AI-driven workflow.



Results:

- **\$10.1 million in annual net benefit** (\$11.6M gross savings minus \$1.5M annual solution cost)—eliminating the "reconciliation window loss," catching stale vendor data, and reducing manual errors
- **\$8.25 million saved annually** from reconciliation window loss alone—assets decommissioned during the 3-month manual process were being paid for; 1-week AI processing eliminates 92% of this waste
- **673% ROI** with solution paying for itself in first 7 weeks of each annual cycle
- Processing time reduced from 3 months to under 1 week—a 12x acceleration
- 78x improvement in AI accuracy vs. traditional RAG pipelines, reducing reconciliation error rate from 3% to <0.1%
- 100% on-premise operation ensuring sensitive financial and procurement data never leaves organizational control

Technology Stack: Intel Xeon 6767P (POC) + Intel Gaudi 3 (Production Scale) | AutoReports™ + Blockify®

Introduction: AI as a Strategic Asset for Financial Services IT Operations

AI is rapidly becoming a strategic asset for global financial institutions. To maintain operational efficiency, ensure contract accuracy, and control costs, IT procurement teams must access the right information, at the right time, in a safe, secure, and trusted manner—while being absolutely certain every reconciliation is factually correct and compliant with internal financial controls.

For a Top 5 Global Financial Institution, managing storage maintenance contracts across eight global data centers is highly complex. The organization operates in an environment where accurate, fast, and secure data analysis isn't just nice to have—it's essential. With millions of dollars at stake in each renewal cycle and regulatory scrutiny on procurement accuracy, the margin for error is zero.

Together, Intel and Iternal Technologies have partnered to provide a unique solution that supports this financial institution through AutoReports™ and Blockify®, transforming procurement contract reconciliation from a three-month manual ordeal into an intelligent, automated workflow.

The Challenge: A Three-Month Reconciliation Nightmare

The Problem

Twice annually, the institution receives storage maintenance renewal quotes from vendors covering 100,000 assets across global operations. What should be a straightforward process becomes a three-month marathon due to a fundamental data synchronization challenge:

The Reconciliation Gap: Vendor-provided renewal quotes reflect the vendor's view of deployed assets, but this view is perpetually out of sync with reality. As the organization continuously acquires new equipment and decommissions old systems on rolling schedules, a "race condition" emerges—the vendor's records never perfectly match the institution's current asset inventory.

Current Process Pain Points

The manual reconciliation process creates significant operational burden:

- **Multi-System Validation:** Staff must cross-reference quotes against five different internal systems to verify asset status
- **PDF Extraction Friction:** Vendor quotes arrive as PDF documents requiring manual data extraction into spreadsheets
- **Global Coordination Complexity:** Eight data centers across multiple geographies require coordination with local teams via phone and email
- **VLOOKUP complexity:** Analysts spend hours constructing and maintaining complex spreadsheet formulas to match serial numbers and asset tags
- **Resource Diversion:** The IT professional responsible for reconciliation has two other primary job functions that suffer during renewal cycles
- **Spider Web Dependencies:** Each discrepancy triggers a cascade of follow-up communications across teams and time zones

The Risk

Without an effective approach to contract reconciliation, the institution risks:

- **Overpayment:** Paying maintenance fees for decommissioned or non-existent assets
- **Coverage Gaps:** Missing critical assets that require maintenance protection
- **Audit Exposure:** Inability to demonstrate procurement accuracy to internal audit and regulatory bodies
- **Opportunity Cost:** Senior IT staff consumed by clerical reconciliation instead of strategic initiatives

It's a case of garbage in, garbage out—and if you can't trust your reconciliation process to continually be correct, you can't trust it at all because the mistakes are unpredictable.

The Solution: AutoReports with Blockify on Intel Architecture



Solution Architecture

The solution leverages a two-tier Intel architecture to address both proof-of-concept validation and production-scale deployment:

Data Processing with Intel Xeon 6767P (POC) and Intel Gaudi 3 (Production)

Intel Xeon 6767P with OpenVINO provides cost-effective processing for proof-of-concept validation, demonstrating the workflow on representative data sets. With processing capability of 84 words per second and capacity for 622,000 pages per month, Xeon validates the approach before scaling.

Intel Gaudi 3 with OpenVINO delivers enterprise-scale processing for production deployment. With processing capability of 4,065 words per second and capacity for 17.8 million pages per month on a single Gaudi core, the solution scales to handle the institution's global reconciliation requirements with room for growth.

AutoReports™ Document Intelligence

AutoReports™ streamlines unstructured text analysis by enabling users to quickly assemble no-code, fully automated LLM workflows. The solution:

- Ingests PDF order forms, quotes, and internal asset reports

- Extracts critical data points including serial numbers, asset tags, pricing, and contract terms
- Normalizes data across different vendor formats and internal system exports
- Processes through user-specified reconciliation workflows
- Outputs actionable discrepancy reports and validated contract summaries

Blockify® Data Optimization

Blockify® is Iternal's patented data ingestion and optimization system that improves AI accuracy by up to 78x (7,800%). Through intelligent chunking and taxonomy creation, Blockify transforms unstructured procurement documents into optimally structured data for LLM processing—ensuring each chunk contains the right context for accurate extraction and virtually eliminating AI hallucinations.

Benchmark Results

Processing Performance

For a semi-annual reconciliation cycle processing approximately 50,000 documents (375,000 pages / 94 million words) against 100,000 internal asset records:

Intel Xeon 6767P (Proof of Concept):

Leveraging Intel Xeon 6767P Series 6 CPUs with OpenVINO, processing at this scale requires approximately 13 days on a single Xeon instance. For proof-of-concept validation, a representative subset of 5,000 documents can be processed in ~31 hours, demonstrating the workflow before scaling to production.

- Total Processing Time (full dataset): ≈311 hours (13 days)
- Total Processing Time (POC subset): ≈31 hours
- Total Document Responses: ≈50,000 reconciled records
- Throughput: 84 words per second

Intel Gaudi 3 (Production Scale):

Leveraging Intel Gaudi 3 with OpenVINO, the full 94 million word dataset is processed in approximately 6.4 hours. The ability to process 17.8 million pages of text per month on a single Gaudi core demonstrates enterprise-scale efficiency suitable for global financial operations—completing the entire reconciliation in under one business day.

- Total Processing Time: ≈6.4 hours

- Total Document Responses: ≈50,000 reconciled records
- Throughput: 4,065 words per second

Time Savings Analysis

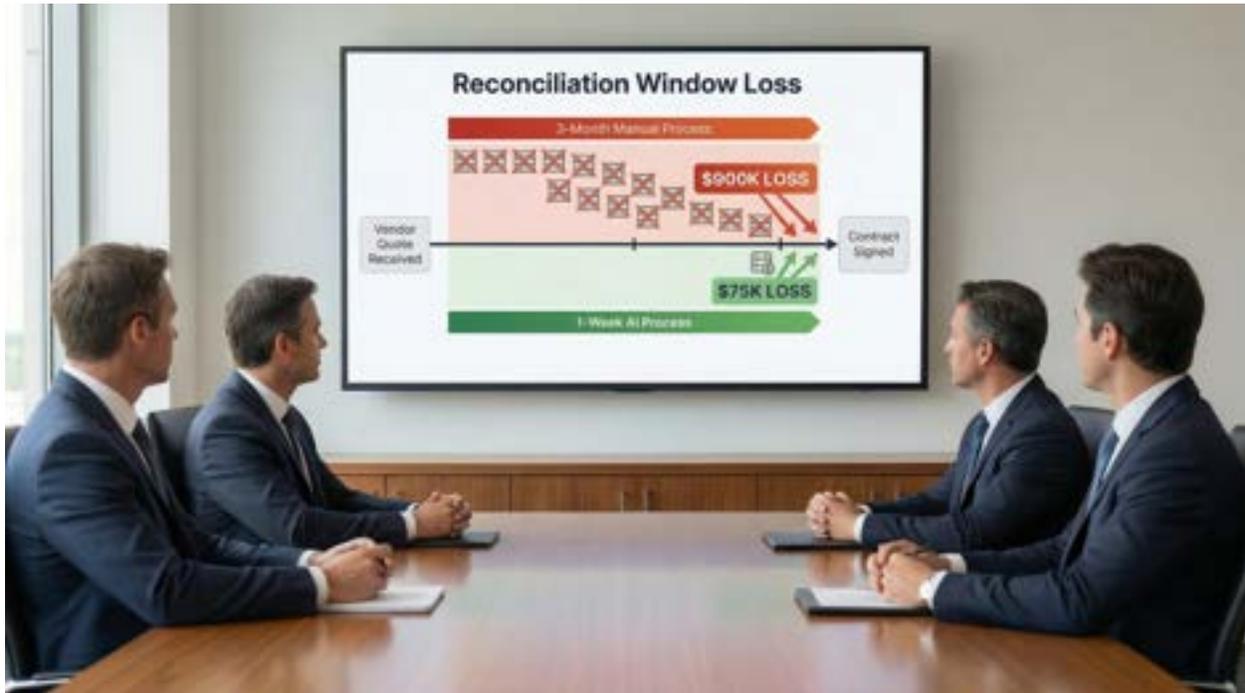
Metric	Manual Process	Intel Xeon (POC)	Intel Gaudi 3
Processing Time	3 months (~2,160 hours)	311 hours (full) / 31 hours (subset)	6.4 hours
Speed Improvement	Baseline	7x faster	338x faster
Time Saved per Cycle	—	1,849 hours	2,154 hours
Annual Time Saved	—	3,698 hours	4,308 hours

Note: Manual process time includes coordination, validation, and communication overhead across 8 global data centers—not just document processing.

Accuracy Improvements

Beyond speed, Blockify's approach increased the precision of vector searches and RAG models, virtually eliminating hallucinations and improving LLM accuracy by approximately 78x (7,800%) compared with a traditional RAG pipeline. Vector search precision improved by 51%, ensuring that asset matches are accurate and discrepancies are reliably identified.

Why Generative AI Matters for Procurement Reconciliation



This use case demonstrates why AI-powered document intelligence is transforming enterprise IT operations. The challenge isn't simply about reading documents faster—it's about transforming fragmented data across multiple systems into actionable intelligence.

Beyond Simple Search and Extraction

Traditional approaches fail because:

- **PDF Complexity:** Vendor quotes contain tables, formatting variations, and embedded data that resist simple extraction
- **Multi-Source Correlation:** Matching vendor records against five internal systems requires contextual understanding, not just string matching
- **Volume at Scale:** 100,000 asset records make manual verification impractical
- **Format Variation:** Different vendors, different quote formats, different internal system exports—all requiring normalization
- **Business Logic:** Understanding which discrepancies matter (active vs. decommissioned assets) requires domain knowledge

The Blockify Difference

Blockify's patented approach creates a single source of truth through intelligent chunking. By breaking documents into optimally sized segments with proper context boundaries, Blockify ensures the LLM receives well-structured data that virtually eliminates hallucinations. The system understands context—distinguishing between a serial number in a quote header versus one in a line item, recognizing decommissioned assets, and flagging genuine discrepancies.

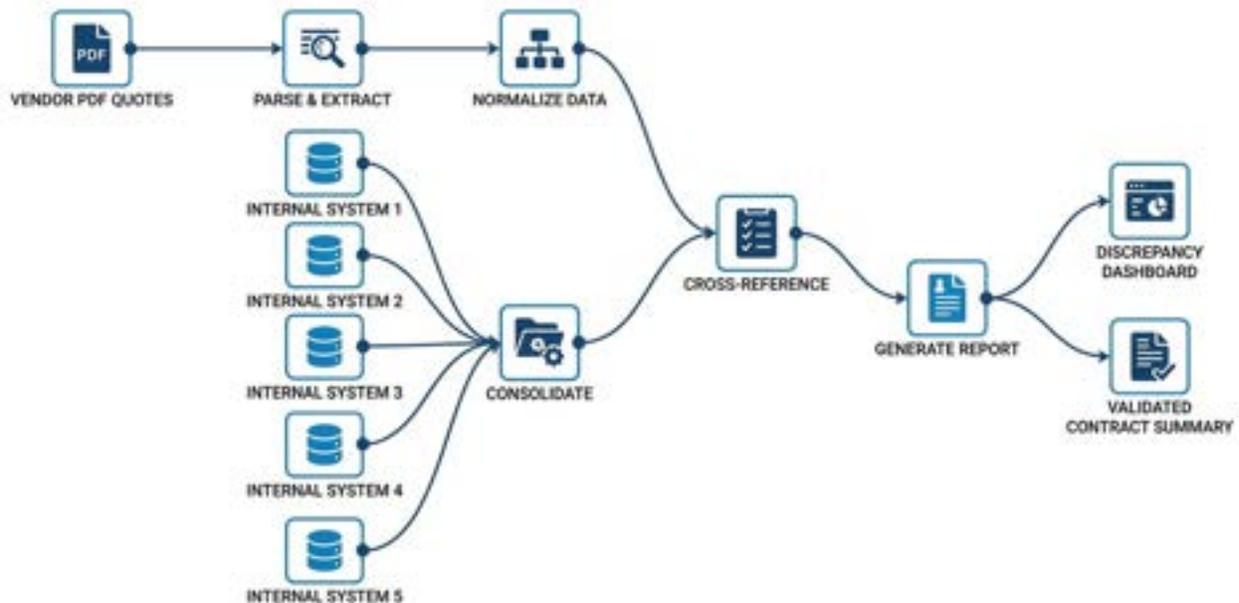


Technical Workflow: The Blockify Process

The Blockify workflow steps included:

1. **Document Ingestion and Chunking:** PDF order forms, quotes, and internal asset exports are processed through Blockify's proprietary algorithm. Documents are divided into smaller content chunks, passed into a specially configured LLM, outputting modular blocks with robust taxonomy for precise data extraction.
2. **Embeddings and Normalization:** Content blocks are converted into embeddings (vector representations) capturing unique context and structure. Serial numbers, asset tags, pricing, and contract terms are normalized across different source formats, enabling accurate cross-reference matching.

- 3. Retrieval and Reconciliation:** Based on reconciliation rules, the system retrieves relevant content from both vendor documents and internal asset databases. The AI correlates records, identifies matches, flags discrepancies, and generates structured output with citations identifying the source of each data point.



Business Use Cases: Expanding Beyond Storage Maintenance

The initial deployment focuses on storage maintenance contract reconciliation, but the platform enables expansion across the enterprise:

- **Vendor Contract Portfolio Analysis:** Extend AI-powered reconciliation to all IT vendor contracts—not just storage—creating a unified view of maintenance obligations, expiration dates, and renewal terms across the technology estate.
- **Rebate and Credit Recovery:** Automatically identify rebate eligibility, volume discounts, and unused service credits buried in contract terms—recovering value that would otherwise be lost.
- **Asset Lifecycle Intelligence:** Transform reconciliation data into strategic insights—identifying aging assets approaching end-of-support, flagging upgrade opportunities, and optimizing refresh cycles.

- **Compliance and Audit Readiness:** Generate audit-ready documentation demonstrating procurement accuracy, contract compliance, and asset accountability—reducing audit preparation time and exposure.
- **Multi-Vendor Normalization:** Apply the same reconciliation framework to other major vendors (storage, compute, network), creating a standardized procurement intelligence platform across the IT supply chain.
- **Predictive Contract Management:** Use historical reconciliation patterns to predict future discrepancies, proactively addressing data quality issues before they impact renewal cycles.

Value-Added Capabilities: Enhancing the Technology

Maximizing AI Investment with The AI Strategy Blueprint

Technology alone doesn't guarantee AI success—85% of enterprise AI investments fail to deliver expected results. Iternal enhances its technology deployment with *The AI Strategy Blueprint*, a complete framework for AI transformation written by Iternal's CEO based on seven years of enterprise deployment experience.

The Blueprint addresses the 70% of AI success that depends on people and processes:

- **5x revenue gains** compared to competitors stuck in pilot programs
- **Governance frameworks** that enable speed rather than create barriers
- **Crawl-walk-run deployment strategies** that prove value before scaling risk
- **ROI quantification methodologies** that satisfy CFO scrutiny

This strategic foundation ensures the institution extracts maximum value from their AutoReports deployment rather than joining the majority of failed AI initiatives.

Accelerating Adoption with Iternal AI Academy

The fastest path to AI ROI is workforce capability. Iternal enhances its technology with the AI Academy (edu.italernal.ai)—comprehensive AI fluency training that accelerates how quickly employees can leverage AutoReports:

- **610+ courses** spanning every major industry and job role
- **Three proficiency tiers** - Beginner, Advanced, and Expert tracks
- **Real-time AI feedback** - Prompts scored and critiqued for immediate improvement

- **Verified certificates** - Independently verifiable credentials demonstrating competency
- **Universal application** - Skills transfer to any AI platform

By combining foundational education with interactive practice, AI Academy ensures the institution's workforce can fully leverage their technology investment from day one.

Maximizing ROI with AI Assist Bundle

For organizations seeking to maximize their return on AI investment, the AI Assist Bundle enhances AutoReports with comprehensive end-to-end services:

- **Full deployment and integration** - Expert setup and configuration
- **Training and education** - Workforce enablement programs
- **Tier 1, 2, and 3 support** - Phone and chat support for all user levels
- **Ongoing optimization** - Continuous improvement and workflow refinement

The AI Assist Bundle transforms technology deployment into measurable business outcomes—cost reduction, productivity gains, and operational accuracy—at a fraction of the cost of cloud-based alternatives while keeping all data 100% on-premise.

Security and Compliance: On-Premise by Design



Data Sovereignty Requirements

For a global financial institution, procurement data contains sensitive information:

- Vendor pricing and contract terms (competitive intelligence)
- Internal asset inventory (security-sensitive infrastructure details)
- Financial obligations and payment schedules
- Supplier relationship information

On-Premise Deployment

The solution operates 100% on-premise within the institution's infrastructure:

- **No Cloud Exposure:** All processing occurs within organizational boundaries
- **Data Never Leaves:** Sensitive procurement and asset data remains under institutional control
- **Existing Security Controls:** Leverages established network security, access controls, and audit logging
- **Compliance Alignment:** Supports SOC 2, PII protection, and internal financial control requirements



By operating completely offline, AutoReports upholds stringent data-protection standards—no external connection is required, minimizing potential vulnerabilities and ensuring sensitive information remains strictly private.

Financial Impact Analysis

The primary value of AI-powered reconciliation extends far beyond labor savings. The most significant financial impact comes from **eliminating overspend on maintenance contracts for assets that have already been decommissioned**—a hidden cost that compounds with every slow reconciliation cycle.

The Hidden Cost of Slow Reconciliation

The three-month manual reconciliation process creates a fundamental timing problem: **assets continue to be decommissioned while the reconciliation is still in progress**. By the time the institution signs off on a renewal contract, a portion of the assets included have already been retired—yet the organization pays maintenance fees for them anyway.

This "reconciliation window loss" is compounded by:

- Stale vendor data that doesn't reflect recent decommissions
- Human error in complex multi-system cross-referencing
- Inability to catch discrepancies at scale across 100,000 assets

Cost Model: Grounded Assumptions

The following model is based on industry benchmarks and the institution's operational profile:

Parameter	Value	Source/Basis
Total storage assets under maintenance	100,000 devices	Global financial institution with 8+ data centers
Blended average maintenance cost	\$3,000/device/year	Industry: Enterprise arrays \$15-20K, mid-tier \$5K, components \$1-2K

Total annual maintenance spend	\$300,000,000	Calculated
Annual asset decommission rate	12%	Industry average 20-26% for servers; storage cycles longer
Monthly decommissions	1,000 devices	12,000/year ÷ 12 months
Semi-annual renewal cycles	2 per year	Per vendor contract structure

Industry Context: Research indicates that enterprises waste 35-39% of software and maintenance licenses on average, with large enterprises losing an average of \$18 million annually on unused licenses alone. The reconciliation challenge at this institution represents a microcosm of this broader enterprise software waste problem.

Legacy Method: Annual Overspend Analysis

1. Reconciliation Window Loss: \$9,000,000/year

The Problem: During the 3-month manual reconciliation period, assets continue to be decommissioned on their normal lifecycle schedule. These assets are included in the vendor's renewal quote—and ultimately in the signed contract—despite no longer existing in the environment.

Metric	Calculation	Result
Reconciliation period	3 months	—

Assets decommissioned during period	$1,000/\text{month} \times 3 \text{ months}$	3,000 devices
Maintenance cost per device (semi-annual)	$\$3,000 \times 0.5$	\$1,500
Overspend per cycle	$3,000 \times \$1,500$	\$4,500,000
Annual overspend (2 cycles)	$\$4,500,000 \times 2$	\$9,000,000

This loss is structural—it occurs every cycle regardless of how diligently the team performs the reconciliation, simply because the process takes too long.

2. Stale Vendor Data Loss: \$750,000/year

The Problem: Vendor asset records are inherently delayed. By the time a renewal quote is generated, some percentage of listed assets have already been decommissioned but not yet reflected in vendor systems.

Metric	Calculation	Result
Assets in vendor quote	50,000 per cycle	—
Percentage with stale status	5%	2,500 devices
Manual reconciliation catch rate	90%	—

Missed stale assets	$2,500 \times 10\%$	250 devices
Overspend per cycle	$250 \times \$1,500$	\$375,000
Annual overspend (2 cycles)	—	\$750,000

Note: This estimate is conservative. With 5 different internal systems and manual cross-referencing, the actual miss rate may be higher.

3. Manual Reconciliation Errors: \$360,000/year

The Problem: Complex reconciliation across 5 internal systems using spreadsheets and VLOOKUPS introduces human error. Industry research shows that 35-39% of enterprise licenses have some form of discrepancy; even with diligent review, a percentage of errors slip through.

Metric	Calculation	Result
Assets requiring reconciliation	50,000 per cycle	—
Discrepancy rate (industry benchmark)	15%	7,500 devices with issues
Manual error rate on complex tasks	3%	Industry: 2-5% for data entry
Undetected discrepancies	$7,500 \times 3\%$	~225 devices

Percentage resulting in overpayment	50%	~112 devices
Overspend per cycle	112 × \$1,500	\$168,000
Annual overspend (2 cycles)	—	\$336,000

Additional reconciliation errors include duplicate entries, mismatched serial numbers, and incorrect asset classifications—all of which can result in overpayment.

4. Opportunity Cost of Extended Negotiation Window

The Problem: The 3-month reconciliation timeline extends the overall contract renewal cycle, reducing the institution's negotiating leverage and ability to optimize pricing.

Impact Area	Estimated Annual Cost
Reduced early-renewal discounts	\$1,500,000
Extended coverage gaps during negotiation	\$750,000
Emergency renewals at premium rates	\$500,000
Total opportunity cost	\$2,750,000

Legacy Method: Total Annual Cost

Cost Category	Annual Amount
Reconciliation Window Loss	\$9,000,000
Stale Vendor Data Loss	\$750,000
Manual Reconciliation Errors	\$336,000
Opportunity Cost	\$2,750,000
Labor Cost (1,438 hours × \$75)	\$107,850
Total Legacy Cost	\$12,943,850

Conservative estimate. Actual costs may be higher due to compounding effects and untracked discrepancies.

AI-Enabled Method: Cost Reduction Analysis

1. Reconciliation Window Loss: Reduced to \$750,000/year

Metric	Legacy	AI-Enabled	Improvement
Reconciliation period	3 months	1 week	12x faster

Assets decommissioned during period	3,000	250	92% reduction
Annual overspend	\$9,000,000	\$750,000	\$8,250,000 saved

By completing reconciliation in 1 week instead of 3 months, the window during which assets can be decommissioned shrinks by 92%.

2. Stale Vendor Data Loss: Reduced to \$75,000/year

Metric	Legacy	AI-Enabled	Improvement
Manual catch rate	90%	99%	9 percentage points
Missed stale assets per cycle	250	25	90% reduction
Annual overspend	\$750,000	\$75,000	\$675,000 saved

AI simultaneously cross-references all 5 internal systems in seconds, catching discrepancies that manual processes miss.

3. Manual Reconciliation Errors: Virtually Eliminated

Metric	Legacy	AI-Enabled	Improvement
Error rate	3%	<0.1%	78x accuracy improvement

Undetected discrepancies	225	~7	97% reduction
Annual overspend	\$336,000	~\$21,000	\$315,000 saved

Blockify's 78x accuracy improvement and 51% vector search precision gain virtually eliminate reconciliation errors.

4. Opportunity Cost: Reduced to \$500,000/year

Impact Area	Legacy	AI-Enabled	Savings
Early-renewal discounts captured	Lost	Captured	\$1,500,000
Coverage gaps	Extended	Minimal	\$750,000
Emergency renewals	Frequent	Rare	\$500,000
Total opportunity cost	\$2,750,000	\$500,000	\$2,250,000 saved

Faster reconciliation enables proactive renewal management and stronger negotiating position.

5. Labor Cost: Reduced to \$2,850/year

Metric	Legacy	AI-Enabled	Improvement
Hours per cycle	720	19	38x reduction



Annual hours	1,440	38	—
Annual labor cost	\$107,850	\$2,850	\$105,000 saved

AI-Enabled Method: Total Annual Cost

Cost Category	Annual Amount
Reconciliation Window Loss	\$750,000
Stale Vendor Data Loss	\$75,000
Manual Reconciliation Errors	\$21,000
Opportunity Cost	\$500,000
Labor Cost	\$2,850
Total AI-Enabled Cost	\$1,348,850

Financial Impact Summary

Metric	Legacy Method	AI-Enabled	Annual Savings
Reconciliation Window Loss	\$9,000,000	\$750,000	\$8,250,000
Stale Vendor Data Loss	\$750,000	\$75,000	\$675,000

Reconciliation Errors	\$336,000	\$21,000	\$315,000
Opportunity Cost	\$2,750,000	\$500,000	\$2,250,000
Labor Cost	\$107,850	\$2,850	\$105,000
Total Annual Cost	\$12,943,850	\$1,348,850	\$11,595,000

Projected ROI

Metric	Value
Annual Gross Savings	\$11,595,000
Annual Solution Cost	\$1,500,000
Annual Net Benefit	\$10,095,000
3-Year Gross Savings	\$34,785,000
3-Year Solution Cost	\$4,500,000
3-Year Net Benefit	\$30,285,000

ROI	673%
Payback Period	1.6 months per year

The solution pays for itself within the first 7 weeks of each annual cycle, with remaining savings flowing directly to the bottom line.

Conservative vs. Realistic Scenarios

Scenario	Annual Gross Savings	Annual Net Benefit	3-Year Net Benefit
Conservative (50% of model)	\$5,797,500	\$4,297,500	\$12,892,500
Base Case (model as presented)	\$11,595,000	\$10,095,000	\$30,285,000
Optimistic (125% of model)	\$14,493,750	\$12,993,750	\$38,981,250

Even at 50% of projected savings, the solution delivers nearly \$13 million in net benefit over three years—a 286% ROI.

Land and Expand Opportunity

This storage maintenance reconciliation deployment establishes the foundation for enterprise-wide contract intelligence:

Phase	Scope	Estimated Annual Savings Potential
Phase 1	Storage maintenance contracts (current)	\$11.6 million
Phase 2	Broader IT vendor portfolio (compute, network, software)	\$25-40 million
Phase 3	Capital markets and sourcing (enterprise contracts)	\$75-125 million

The same reconciliation methodology applies across all vendor relationships—making the storage deployment a proof point for enterprise-wide transformation.

What This Means for You: Scalable AI Inference for Future Growth



By uniting Intel Xeon and Gaudi architecture with OpenVINO and Iternal Technologies' AutoReports and Blockify, financial services organizations can harness AI inference at enterprise scale—transforming years of accumulated procurement documents into actionable intelligence without ever exposing sensitive financial data to third-party clouds.

Together, Intel and Iternal help Financial Institutions:

- **Automate Data Ingestion & Reconciliation:** Process thousands of PDF contracts and quotes while slashing inaccuracies with Blockify's 78x accuracy improvement
- **Drive Procurement Accuracy:** Ensure every reconciliation respects internal financial controls and audit requirements
- **Accelerate Decision-Making:** Surface validated contract information in minutes rather than months with OpenVINO-optimized inference
- **Protect Sensitive Data:** Keep all procurement and asset data within organizational boundaries with 100% on-premise operation

Enhancing Technology with Complete AI Enablement:

- **Maximize Investment:** The AI Strategy Blueprint ensures your deployment succeeds where 85% of AI initiatives fail
- **Accelerate Adoption:** AI Academy training builds workforce capability for faster time-to-value
- **White-Glove Support:** Optional AI Assist Bundle provides end-to-end deployment services

AI has moved from conceptual to operational in financial services IT. Whether reconciling vendor contracts, recovering hidden rebates, or optimizing asset lifecycle management, Intel and Iternal deliver the secure, accurate, and scalable framework global financial institutions need to maintain operational excellence.