



# Freight Invoice Automation with AI: A Logistics Success Story



# Company Background

A mid-sized logistics company that offers freight audit and payment solutions was responsible for processing thousands of freight invoices daily, ensuring accurate billing and cost optimization for its clients. The company's reputation depended on its ability to quickly validate, process, and pay carrier invoices while identifying discrepancies that could lead to cost savings. As they scaled, it became far more costly to do so.

## The Challenge

As the company expanded its client base, its manual invoice processing systems struggled to keep pace with growing demand. Their operations team wanted assistance handling the following challenges:

### High-Volume Processing Bottlenecks

The company was processing over **60,000 freight invoices daily**, with **each invoice containing an average of 42 line items**. The manual data entry required for this volume created significant bottlenecks, **with processing times extending to 3-5 days per invoice** - far too slow for their service level agreements.

### Data Extraction Accuracy Issues

Freight invoices arrived in **various formats from hundreds of different carriers**, each with **unique layouts and data structures**. The manual extraction process **resulted in a 12% error rate**, leading to **payment discrepancies, client disputes, and strained carrier relationships**.

### Inefficient Invoice Classification

The operations team struggled to **efficiently sort and route invoices based on carrier, service type, and client specifications**. This classification challenge created workflow inefficiencies and **prevented the company from prioritizing critical invoices** that required immediate attention.

# The Solution

ITech Data (ITD) implemented a comprehensive AI-driven solution designed specifically for the logistics industry's unique invoice processing requirements. The multi-faceted approach addressed each challenge with careful planning and technical execution:

## Phase 1: Tech and Feature Planning

The implementation began with selecting and customizing AI technologies and features necessary for the company's specific needs:

- Custom OCR models were trained on the company's historical invoice dataset, enabling the recognition of diverse freight invoice formats
- Machine learning algorithms were fine-tuned to identify industry-specific data fields, including accessorial charges, fuel surcharges, and dimensional weight calculations
- Validation rules were established to flag potential errors based on historical pricing agreements and service parameters

## Phase 2: Integration & Workflow Automation

The solution was seamlessly integrated with the company's existing systems:

- API connections were established with the company's transportation management system (TMS) for automated data validation against contracted rates
- Intelligent workflow automation routed invoices based on predefined business rules, prioritizing urgent payments and exceptions requiring human review
- Real-time dashboards were implemented to provide visibility into processing status and performance metrics

## Phase 3: Employee Training & Change Management

A comprehensive training program ensured smooth adoption:

- Operations staff received hands-on training in managing the new AI-assisted workflows
- Exception-handling procedures were established for cases requiring human intervention
- Knowledge transfer sessions equipped the internal IT team to handle routine maintenance and system monitoring

## Phase 4: Performance Optimization & Scaling

The solution was designed to continuously improve:

- Machine learning models were regularly retrained using new invoice data to enhance recognition accuracy
- Performance analytics identified additional automation opportunities
- Capacity planning ensured the system could scale with the company's growing client base



# Results: From Bottleneck to Breakthrough

The implementation of ITD's AI-driven solution delivered the following transformative results:

## 75% Increase in Data Processing

Data extraction precision improved, particularly for complex charges and special handling fees, **with error rates dropping from 12% to less than 3%.**

## 60% Reduction in Manual Data Entry

Staff time dedicated to invoice processing **decreased from 120 hours to 48 hours weekly**, and the company handled a **30% increase in invoice volume**

## 50% Boost in Overall

Average invoice processing time **decreased from 3-5 days to less than 24 hours**. Payment cycle times improved, and **cost recovery from billing discrepancies increased by 22%.**

## Enhanced Client Satisfaction

**Faster processing and higher accuracy** led to **improved client retention rates.**

## Competitive Advantage

The company now highlights its **AI-powered processing as a key differentiator in client proposals.**

## Cost Savings & Scalability

The company **achieved ROI within 7 months** through **reduced labor costs and improved cash flow management.** The business can now onboard new clients without proportional increases in processing staff.



## Conclusion

By implementing ITD's AI-automated invoice processing solution, this logistics company transformed an operational challenge into a competitive advantage. The technology solved immediate pain points and positioned the company for continued growth and innovation in the freight audit and payment industry.

The success of this implementation demonstrates how strategically applied AI can revolutionize back-office operations in the logistics sector, delivering measurable improvements in accuracy, efficiency, and overall business performance.

