Case Study

techwave

CUSTOMER STORY

From Data Disconnect to Unified Intelligence

How a Global Fortune 500 Food Distributor connected 25 entities, 300+ disparate systems and 15+ downstream applications through one real-time enterprise data backbone

25+	300+	15+	800+
OPERATING ENTITIES	DISPARATE SYSTEMS	DOWNSTREAM APPLICATIONS	CUSTOMERS & SUPPLIERS

Order-to-cash processing moved from hours or days to minutes—accelerating cash flow, revenue recognition and customer responsiveness.

About Client

The client is a global Fortune 500 food distribution enterprise operating through more than 25 entities. Its ecosystem supports over 730 customers and suppliers and connects a wide range of upstream business units with downstream customer portals, delivery, inventory and transaction applications.

At this scale, customer, supplier, Accounts Payable, Accounts Receivable and transaction data must move accurately and quickly across the enterprise. However, the organization's growth produced a highly distributed operating model supported by hundreds of entity-level systems, databases and integration patterns.

Executive Summary

The enterprise needed to replace a fragmented, batch-dependent data environment with a connected foundation capable of supporting finance, order-to-cash and customer operations in real time.

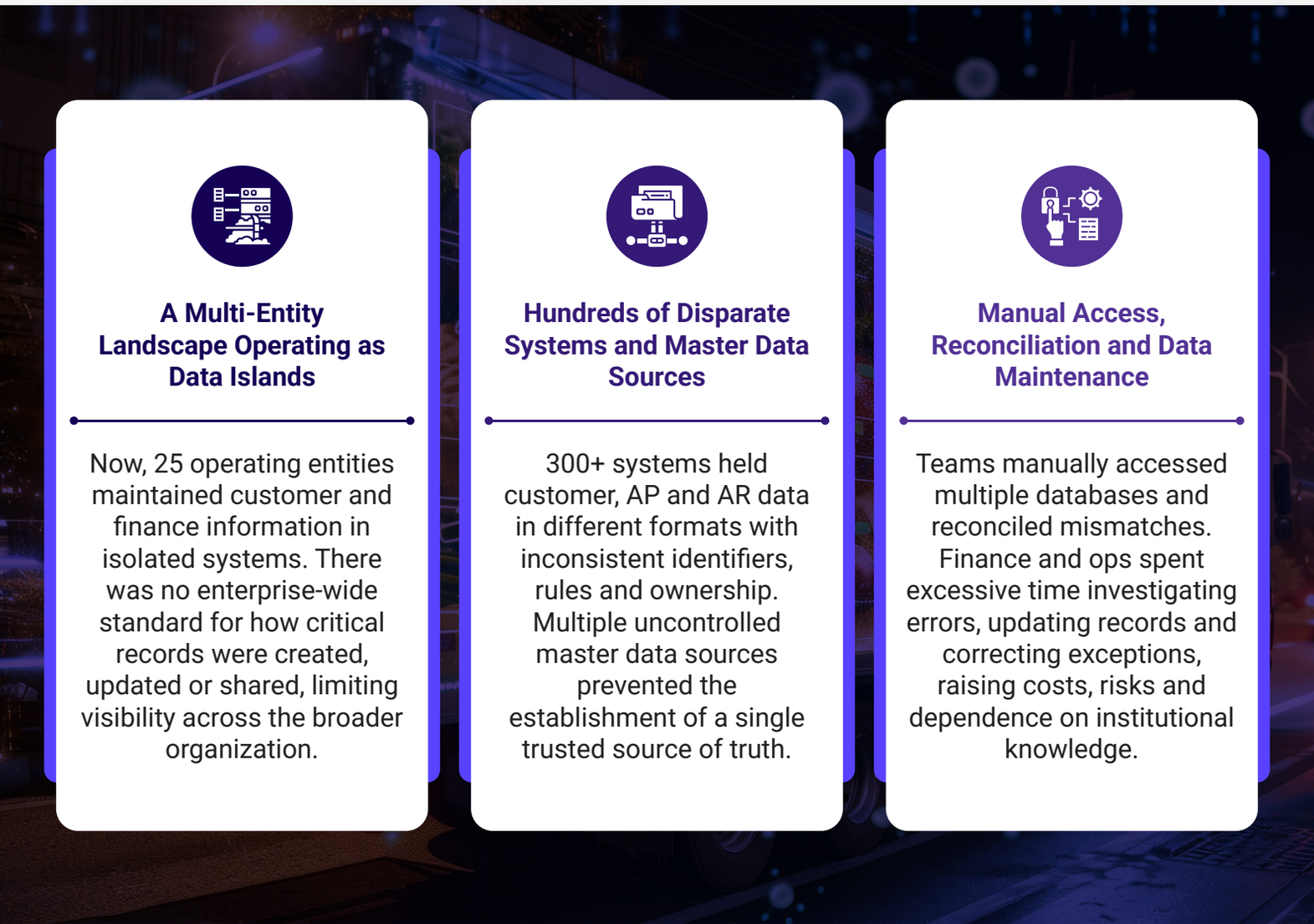
Each operating entity maintained isolated customer and finance data, often with its own master data definitions and reporting logic. Teams manually accessed multiple databases for routine queries and reconciliations. Customer onboarding and payment-term updates were slow and error-prone, while batch exchanges meant that critical changes could take hours—or even days—to reach downstream applications.

Techwave designed and implemented a unified integration architecture centered on a Customer Data Hub integrated with Workday. AWS, MuleSoft, Kafka, and Springboot enabled real-time synchronization across the enterprise, while Datadog and ServiceNow provided the monitoring, incident management and operational visibility required to run the platform reliably - at scale.

The result was a single intelligent data backbone connecting 25 entities and 15+ downstream applications. Workday became the enterprise source of truth for governed customer and finance data; manual reconciliation reduced; customer and payment updates became available in real time; and order-to-cash processing moved from hours or days to minutes.

Business Challenges

The core issue was not simply the number of systems. It was the operational friction created when multiple entities could not share trusted data in real time.



A Multi-Entity Landscape Operating as Data Islands

Now, 25 operating entities maintained customer and finance information in isolated systems. There was no enterprise-wide standard for how critical records were created, updated or shared, limiting visibility across the broader organization.

Hundreds of Disparate Systems and Master Data Sources

300+ systems held customer, AP and AR data in different formats with inconsistent identifiers, rules and ownership. Multiple uncontrolled master data sources prevented the establishment of a single trusted source of truth.

Manual Access, Reconciliation and Data Maintenance

Teams manually accessed multiple databases and reconciled mismatches. Finance and ops spent excessive time investigating errors, updating records and correcting exceptions, raising costs, risks and dependence on institutional knowledge.

Business Challenges

Batch Processing Slowed Revenue-Critical Workflows

Customer onboarding, payment-term updates, transaction synchronization and other order-to-cash activities ran on batch cycles. Updates took hours or days, delaying orders, payments and revenue recognition.

Limited Customer and Operational Visibility

Customers and internal teams lacked real-time views of accounts, orders, and transactions. Monitoring and reporting were fragmented, making it difficult to identify issues early, understand their business impact or respond consistently across multiple entities.

Business Impact

Together, these constraints created higher operational costs, slower revenue cycles and less responsive customer experience. They also restricted leadership's ability to trust enterprise reporting and make timely decisions across a complex operating network.

Techwave's Strategy and Solutions

Techwave created a governed, real-time integration backbone that connected entity-level systems to a common enterprise data foundation without disrupting the downstream applications that supported day-to-day operations.

1 Unified Customer and Finance Data Through a Central Hub

Techwave implemented a centralized Customer Data Hub integrated with Workday to consolidate customer, Accounts Payable and Accounts Receivable data across more than 25 entities. The hub standardized how critical records were created, governed and distributed, while Workday served as the enterprise source of truth.

- **Common enterprise data model** Customer and finance records were aligned to consistent structures and rules across entities.
- **Governed master data** Duplicate and inconsistent records were reduced through centralized ownership and validation.
- **One trusted enterprise view** Upstream entities and downstream applications consumed the same governed information.

Techwave's Strategy and Solutions

2 Real-Time Integration with a Microservices Architecture

A scalable microservices-based architecture using AWS, MuleSoft and Amazon Kafka replaced slow batch dependencies with real-time, event-driven data exchange. Automated services synchronized customer profiles, payment updates and transactions as business events occurred.

- **AWS provided the scalable cloud foundation** for running integration services and supporting enterprise transaction volumes.
- **MuleSoft orchestrated APIs and service interactions,** providing a reusable integration layer between Workday, entity systems and downstream applications.
- **Amazon Kafka enabled real-time streaming,** allowing updates to move through the ecosystem without waiting for the next batch window.

3 A Connected Downstream Application Ecosystem

The integration backbone connected more than 15 downstream applications spanning customer portals, delivery, inventory and transaction processing. Instead of separate point-to-point exchanges, applications received consistent data through a shared, scalable pattern.

This created a continuous flow from upstream entity systems through the enterprise source of truth and into the applications used by employees, customers and suppliers—reducing duplication and improving the timeliness of every connected process.

4 Automation and Process Standardization

Techwave automated the workflows surrounding customer onboarding, reconciliation, payment updates and transaction synchronization. Standardized processing replaced manual hand-offs and reduced the need for teams to compare data across multiple systems.

- **Real-time customer profile creation** supported faster onboarding and immediate availability across connected applications.
- **Automated payment and transaction synchronization** accelerated order-to-cash activity and reduced downstream exceptions.
- **Standardized reconciliation flows** improved consistency and reduced repetitive effort in finance and operations.

Techwave's Strategy and Solutions

5 Intelligent Monitoring and Customer-Experience Visibility

Datadog and ServiceNow were embedded into the operating model to provide real-time monitoring, unified dashboards and structured incident management. Teams gained a clearer view of platform health and the customer-facing processes dependent on it.

- **Proactive issue detection** helped teams identify integration failures and performance concerns before they became widespread.
- **End-to-end operational visibility** made it easier to trace incidents across entities, services and downstream applications.
- **Integrated incident management** supported faster resolution, clearer accountability and more reliable customer operations.

6 A Scalable Foundation for Enterprise Intelligence

The solution established a reusable integration and governance pattern that could support new entities, services and downstream applications without recreating the fragmentation of the previous environment. Consistent, real-time data also created a stronger foundation for enterprise reporting, analytics and future decision intelligence.

Business Outcomes

Order-to-cash reduced from hours or days to minutes

Real-time synchronization accelerated processing, supporting faster cash flow and customer responsiveness.

Customer onboarding and payment updates moved to real time

Profiles, terms and transaction changes became available across connected applications as they occurred.

Faster transaction processing and revenue recognition

Removing batch delays shortened the time between customer activity, financial processing and enterprise visibility.

Enterprise-wide operational visibility across 25 entities

Unified monitoring and dashboards enabled more proactive, data-driven decisions.

Lower manual effort in finance and operations

Automated reconciliation and standardized data flows reduced repetitive intervention and exception handling.

Stronger data consistency and governance

A centralized foundation improved the reliability, accuracy and ownership of customer and finance data.

Strategic Impact

The transformation changed how the enterprise operated across its multi-entity ecosystem. Trusted data no longer depended on employees navigating hundreds of isolated databases or waiting for overnight batches. Customer and finance information could move through a governed, observable and real-time architecture built for enterprise scale.

The initiative delivered more than integration modernization. It connected finance, order-to-cash and customer operations around a shared source of truth. Workday became the trusted enterprise anchor; the Customer Data Hub standardized critical records; and reusable services connected every entity and downstream system through a common integration pattern.

For leadership, this created a more dependable view of enterprise activity. For finance and operations teams, it reduced reconciliation and manual intervention. For customers and suppliers, it enabled faster onboarding, more current account information and more responsive experience.

Today, the unified data backbone provides the scalable foundation for continued automation, analytics and enterprise intelligence, enabling the organization to grow without reproducing the data silos and operational bottlenecks of the past.

One governed data foundation now connects every operating entity to the applications, people and decisions that depend on it.

Featured Tools & Technologies

Workday | Amazon Web Services | MuleSoft | Amazon Kafka | Springboot | Datadog | ServiceNow

About Techwave

Headquartered in Houston, TX, Techwave delivers global technology and engineering services to 600+ clients across five continents. With expertise in Data & Analytics, Software Engineering, AI/ML, Cloud Engineering and Strategic Sourcing, we provide end-to-end digital capabilities that maximize value from digital investments. Our CMMI Level 5 and ISO 9001:2015 certifications reflect our commitment to delivery excellence.