

# License (Royalty) Management System



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# About the Client

The client is a German retail company and a world leader in the retail, e-commerce, financing, logistics and mail order sectors with over 40,000 employees and sales of over €15 billion in 2023.

The client, faced challenges in managing complex royalty structures and large-scale transactional data

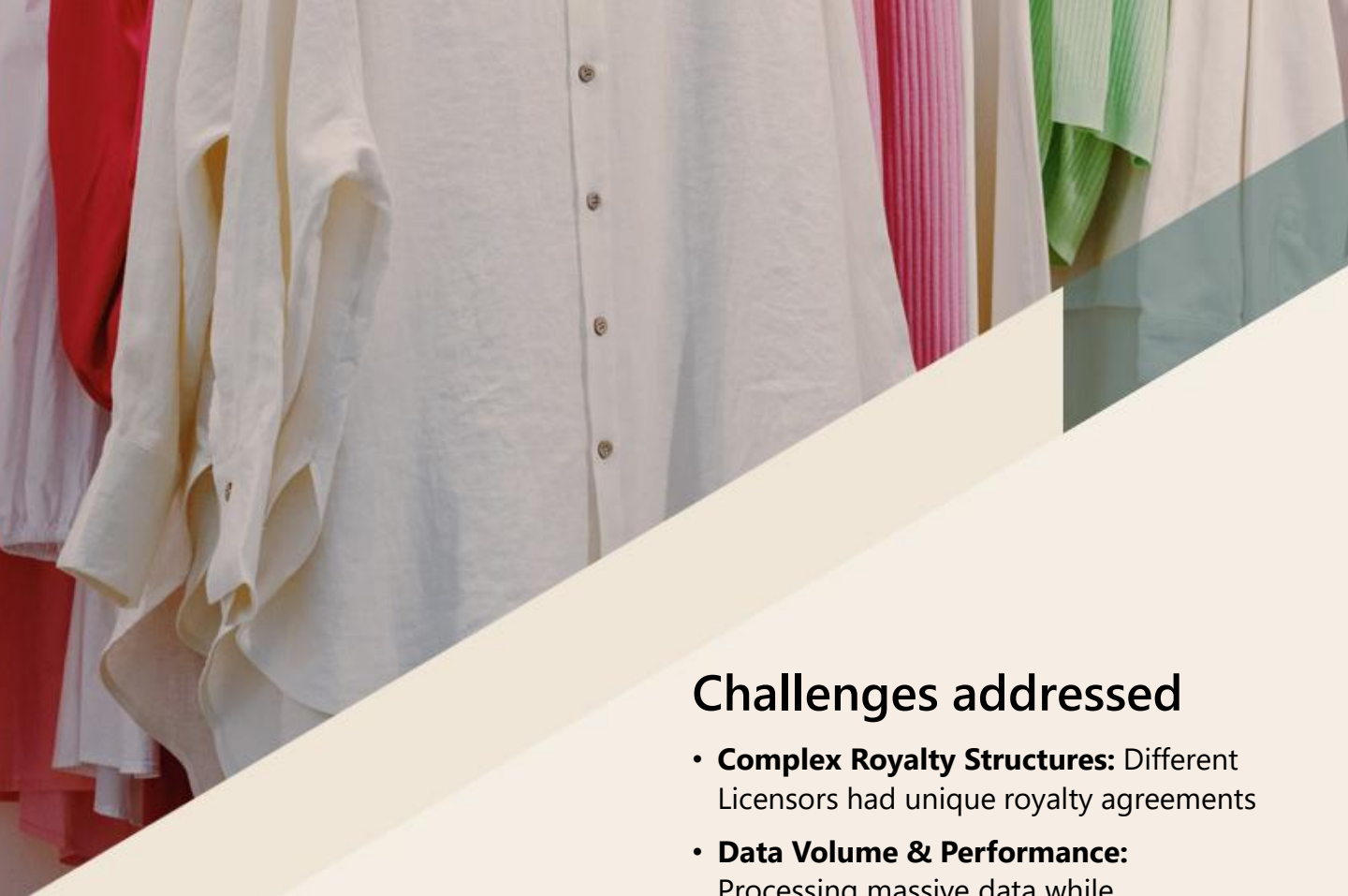


## Overview

A License (Royalty) Management System (LAS) was implemented to automate and streamline royalty calculations, reporting, and pay-outs based on item and sales data for suppliers and vendors in a B2B e-commerce ecosystem.

The system was designed to ensure accurate royalty disbursements based on predefined contracts, sales performance, and pricing structures while integrating seamlessly with existing e-commerce platforms and financial systems.





## Challenges addressed

- **Complex Royalty Structures:** Different Licensors had unique royalty agreements
- **Data Volume & Performance:** Processing massive data while maintaining efficiency
- **Data Consistency & Integration:** Ensuring seamless data exchange with multiple e-commerce and financial systems
- **Security & Compliance:** Protecting sensitive financial data while ensuring regulatory compliance.

## Key requirements

- Automated Royalty Calculations
- Item-Based Royalty Tracking
- Licensor, Brand and Contract Management
- Integration with E-Commerce Platforms
- Batch Processing for Large-Scale Data
- Reporting & Audit Trail
- File-Based Data Exchange

**Other Requirements:** Maintenance and Upgrade of application





# System Architecture & Technology Stack

- **Backend:** Java, Spring Boot
- **Frontend:** Jmix (UI Framework for Business Applications)
- **Batch Processing:** Spring Batch for handling bulk computations
- **Scheduler & Workflow Automation:** Control-M for managing file-based data exchanges with remote servers
- **Database:** Oracle (for transactional and analytical data)
- **Messaging & Integration:** Apache Kafka (for real-time updates, if needed)
- **Security & Compliance:** Role-based access control (RBAC) using LDAP, and logging mechanisms

# Solution Offered

## Data Ingestion & Pre-processing:

- Sales and item-level transaction data were retrieved via batch file processing
- Control-M scheduled and monitored file transfers for batch data exchange with remote servers

## Royalty Calculation:

- The system applied contract-specific billing rules and calculated royalties per item and transaction
- Spring Batch processed bulk data efficiently, ensuring scalability

## Validation & Adjustment:

- Business billing rules validated computed royalties
- Manual adjustments (if necessary) were made via Jmix UI

## Payment Processing & Reporting:

- Approved payments were scheduled for disbursement
- Reports and audit logs were generated for compliance and financial reconciliation





## Benefits

The implementation resulted in improved operational efficiency, cost savings, and better vendor relationships.

- Eliminated manual errors in royalty calculations
- Handled large datasets with batch processing and optimized database queries
- Reduced manual intervention with Control-M automation for file-based data exchange
- Maintained detailed logs for audits and financial transparency
- Worked with various e-commerce and financial (SAP) platforms
- Ensured precise royalty calculations at the Article / Item / SKU level
- Provided transparency in royalty payments, strengthening licensor trust
- Item Sales and accounting details reports based on the billing period and various other criteria

With Java, Jmix, Spring Boot, Spring Batch, and Control-M, the system is robust, scalable, and efficient, catering to complex contractual, transactional, and item-based royalty requirements.

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With our expertise, personalized approach, and commitment to excellence, we ensure a seamless upgrade experience that unlocks the full potential of Business Central.

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