

# Business Rule Extraction System

## Use Case Proposal for Michelin of North America

### Summary

This document outlines the proposed use cases for Michelin of North America's Generative AI Business Rule Extraction System. The system aims to facilitate the migration from a legacy COBOL-based enterprise system to a cloud-based Oracle E-Business Suite by providing an intelligent interface for accessing and interpreting business rules. This proposal identifies key stakeholders and their anticipated interactions with the system.

### Project Context

Michelin is undertaking a strategic migration from its legacy COBOL-based enterprise system to an Oracle E-Business Suites cloud-based system. To ensure business continuity and knowledge preservation, a generative AI interface is being developed to extract and interpret business rules from the legacy system. This interface will serve as a crucial tool during and after the migration process.

### System Overview

The proposed generative AI interface will:

- Extract business rules from legacy COBOL code
- Interpret and explain these rules in natural language
- Provide context-specific responses to user queries
- Support cross-departmental rule analysis
- Facilitate the migration to Oracle E-Business Suites

### Stakeholder Analysis

The following stakeholders have been identified as primary users of the system:

1. IT Department Staff

The following stakeholders are defined as secondary users (i.e., potential future users) of the system:

1. HR Department Staff
2. Accounts Payable Staff
3. Accounts Receivable Staff
4. Sales Department Staff
5. Marketing Staff
6. Shipping/Logistics Staff
7. Management/Executive Staff

## Primary Use Cases

The following is a list of use cases applicable to all primary actors.

Actor	Use Case Type	Use Case Description
IT Dept. Staff	Rule Discovery and Understanding	IT staff submit query to learn about existing business rules, e.g., "Explain the business logic for determining payment terms for new customers"
IT Dept. Staff	Rule Dependencies and Relationships	IT staff submit query to determine relationships between business rules, e.g., "What rules need to be considered when processing a large corporate customer's discount"
IT Dept. Staff	Rule Validation and Troubleshooting	IT staff submit query to validate business rules, e.g., "Show me where this specific discount rule is implemented in the COBOL code"
IT Dept. Staff	System Maintenance and Updates	IT staff submit query to determine scope of proposed system updates, e.g., "What business rules need to be modified if we change the maximum discount percentage?"
IT Dept. Staff	Documentation and Knowledge Transfer	IT staff submit query to create documentation, e.g., "Generate documentation for all rules related to seasonal discounts"
IT Dept. Staff	Integration Support	IT staff submit query to aid with system migration, e.g., "List rules that depend on specific database fields"
IT Dept. Staff	Compliance and Audit	IT staff submit query for regulatory/audit purposes, e.g., "List rules that implement regulatory requirements"
IT Dept. Staff	Edge Case Analysis	IT staff submit query to review business logic for uncommon scenarios, e.g., "What special rules apply to international customers?"
IT Dept. Staff	Performance and Optimization	IT staff submit query to determine system impact of business rules, e.g., "Show me rules that require multiple database queries"
IT Dept. Staff	Training and Onboarding	IT staff submit query to aid in training new IT staff members, e.g., "Explain the basic workflow of payment term rules"
IT Dept. Staff	System Access and Security	IT Staff submit query to determine user privileges associated with business rules, e.g., "Show user permission requirements for discount approvals"

## Secondary Use Cases

The following is a select list of potential use cases that may apply should Michelin decide to expand accessibility to secondary actors. Due to privacy requirements, user privileges would need to be evaluated for each submitted query.

Actor	Use Case Type	Use Case Description
HR Department Staff	Payroll Calculation Rules	HR staff submit a query to review rules specific to payroll, e.g., "Show me all the rules for calculating overtime pay in the legacy system"
HR Department Staff	Benefits Deduction Rules	HR staff submit a query regarding employee benefits, e.g., "What rules determine 401(k) contribution calculations?"
HR Department Staff	Leave Accrual Rules	HR staff submit a query to determine accrual of Paid Time Off (PTO), e.g., "Show all vacation time accrual calculations by employee type"
HR Department Staff	Employee Status Change Rules	HR staff submit a query to determine effects of staff promotions, e.g., "Explain how employee class changes affect benefit calculations"
HR Department Staff	Time and Attendance Rules	HR staff submit a query to review rules for employee time calculations, e.g., "Show rules for calculating regular hours vs. overtime"
Accounts Receivable Staff	Customer Payment Terms Rules	A/R staff submit a query to determine rules related to payment terms, e.g., "What payment terms are available for different customer categories?"
Accounts Receivable Staff	Invoice Generation Rules	A/R staff submit a query to determine rules regarding customer billing, e.g., "What determines shipping charges on invoices?"
Accounts Receivable Staff	Collections Management Rules	A/R staff submit a query to review rules regarding collections, e.g., "Show aging bucket calculation rules"
Accounts Receivable Staff	Customer Credit Rules	A/R staff submit a query regarding customer credit, e.g., "Show rules for credit risk assessment"
Accounts Receivable Staff	Payment Application Rules	A/R staff submit a query about application of customer payments, e.g., "List rules for payment matching to invoices"
Accounts Payable Staff	Payment Processing Rules	A/P staff submit a query to determine rules regarding processing outgoing payments, e.g., "Show how the legacy system calculates payment due dates"
Accounts Payable Staff	Discount Calculation Rules	A/P staff submit a query to review rules for calculating discounts on outgoing payments, e.g., "What conditions must be met in the system for discount eligibility?"

Actor	Use Case Type	Use Case Description
Accounts Payable Staff	Payment Authorization Rules	A/P staff submit a query to determine rules regarding approval procedures, e.g., "What conditions trigger additional approval requirements?"
Sales Department Staff	Pricing Calculation Rules	Sales staff submit a query regarding merchandise pricing, e.g., "What conditions trigger special pricing tiers?"
Sales Department Staff	Customer Discount Rules	Sales staff submit a query to review discount rules, e.g., "What combinations of discounts are allowed in the system?"
Sales Department Staff	Order Processing Rules	Sales staff submit a query to determine rules specific to customer orders, e.g., "Explain how backorder prioritization works"
Sales Department Staff	Customer Classification Rules	Sales staff submit a query with respect to customer tiers, e.g., "What sales thresholds trigger tier changes?"
Sales Department Staff	Commission Calculation Rules	Sales staff submit a query regarding sales commissions, e.g., "What conditions affect commission percentages?"
Marketing Staff	Promotion Eligibility Rules	Marketing staff submit a query with regard to sales promotions, e.g., "Show how the system determines customer eligibility for promotions"
Marketing Staff	Customer Segmentation Rules	Marketing staff submit a query to review rules regarding customer demographics, e.g., "Explain the logic for VIP customer classification"
Marketing Staff	Pricing Program Rules	Marketing staff submit a query to determine promotional pricing, e.g., "Show how seasonal pricing adjustments are calculated"
Shipping/Logistics Staff	Freight Cost Calculation Rules	Shipping staff submit a query to determine freight cost calculation, e.g., "What rules determine dimensional weight calculations?"
Shipping/Logistics Staff	Transportation Rules	Shipping staff submit a query to review rules regarding freight transportation, e.g., "List rules for delivery time window calculations"
Shipping/Logistics Staff	Carrier Selection Rules	Shipping staff submit a query to review carrier selection criteria, e.g., "Explain the logic for LTL vs FTL decisions"
Shipping/Logistics Staff	Delivery Schedule Rules	Shipping staff submit a query to determine rules for freight delivery schedules, e.g., "What rules determine cut-off times for same-day shipping?"

Actor	Use Case Type	Use Case Description
Management/ Executive Staff	Profit Margin Calculation Rules	Executive staff submit a query regarding profit margins, e.g., "Show how the system calculates margins across different product lines"
Management/ Executive Staff	Performance Metric Rules	Executive staff submit a query to evaluate performance metrics, e.g., "List rules for customer retention rate computation"
Management/ Executive Staff	Customer Segmentation Rules	Executive staff submit a query regarding customer demographics, e.g., "Explain the logic for customer profitability analysis"
Management/ Executive Staff	Budget Allocation Rules	Executive staff submit a query to determine rules regarding departmental budget calculations, e.g., "Show how the system calculates department budget thresholds"