

Transforming Telecom Operations with DecisionRules at O2 Czech Republic

How O2 Czech Republic used DecisionRules to decouple business rules from a monolithic CRM, empower business teams with no-code rule management, and deliver real-time decisions across its mobile app and web e-shop.



ABOUT THE CLIENT

O2 Czech Republic is a leading telecommunications provider with over 22 years on the market, delivering voice, internet, and data services to more than 6 million customers, including residential users, SMEs, corporations, and government. O2 TV is a major player in internet TV broadcasting. With annual revenue of approximately €1.7 billion and a reputation for innovation, O2 constantly evolves its operations to deliver seamless customer experiences and stay ahead in the competitive telecom industry.

REGION	COMPANY SIZE	SECTOR	REVENUE
Europe	Enterprise	Telecommunications	~€1.7 billion

RULE EXECUTION SPEED

Under 100ms

All rules execute within 100 milliseconds, enabling real-time pricing and responsive UX

RULE CHANGE TIME

Seconds, Not Days

Updates that previously took hours or days were reduced to seconds.

ACCURACY

Error Elimination

Structured rules engine eliminated manual errors from groovy scripts.

The Challenge and Why

The Challenge: Hard-Coded Logic Slowing Down a Telecom Giant

As a dominant telecommunications provider, O2 faced the challenge of managing intricate and dynamic business rules embedded within its operations. All critical business logic—delivery pricing, discount calculations, customer segmentation—was tightly integrated and hard-coded within a custom-built CRM system. This rigid setup meant that any updates or modifications required significant IT intervention, leading to inefficiencies and operational bottlenecks.

This traditional approach posed several challenges:

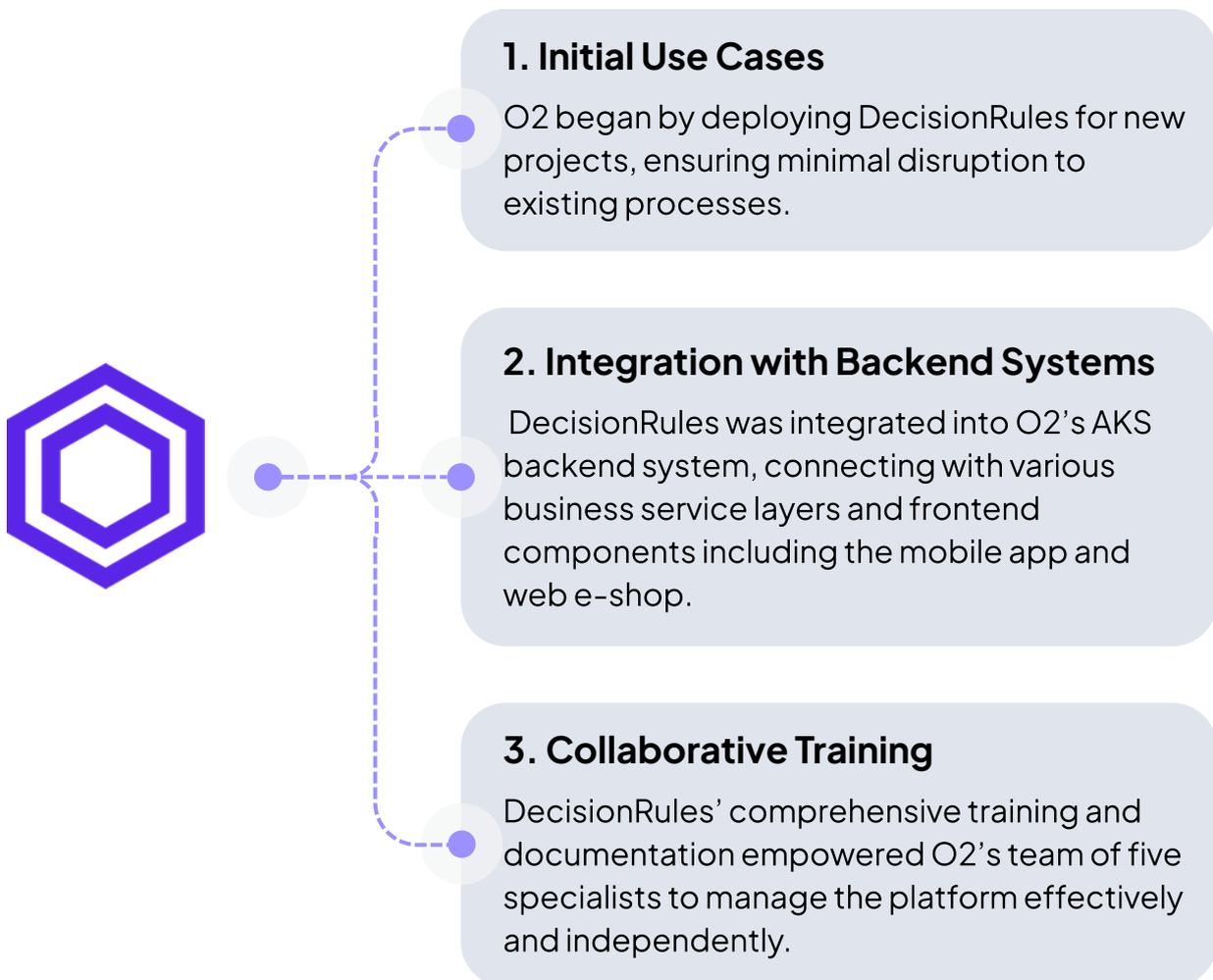
- **Decentralization Needs:** O2 sought to decouple its CRM and externalize its business logic, creating a more modular and resilient system capable of operating effectively even during downtimes.
- **Complexity of Processes:** Managing tightly coupled, hard-coded rules in an ever-evolving telecom landscape made handling decision-making processes overly cumbersome and prone to errors.
- **Reliance on IT Teams:** Any updates—from minor tweaks to substantial logic changes—were time-intensive and heavily reliant on IT resources, diverting attention from strategic initiatives and creating delays.
- **Need for Scalability:** With a growing customer base and expanding service offerings, O2 needed a solution that could seamlessly scale to accommodate increasingly complex use cases.

Why O2 Chose DecisionRules

- **Simplicity:** The straightforward configuration and clear structure of DecisionRules appealed to O2's teams, enabling faster implementation.
- **Scalability and Flexibility:** DecisionRules could adapt to O2's growing needs, providing a centralized repository for all decision-making logic.
- **Performance:** The platform's ability to execute rules in under 100 milliseconds was pivotal. When a customer selects a product, they must receive an accurate price almost instantly. Since DecisionRules is part of a broader quoting system, its sub-100ms execution time was essential to ensure the entire process remained under one second—an absolute requirement for modern, high-performance customer-facing systems.

Implementation and Architecture

The implementation of DecisionRules at O2 followed a phased approach:



From an architectural perspective, DecisionRules operates as a centralized decision layer connected to O2's AKS backend, interacting with business service layers and delivering outputs to frontend applications such as the mobile app and web e-shop. By separating business logic from the CRM core and gradually introducing the platform through new use cases, O2 established a modular and scalable foundation for managing decision-making processes across its operations.

Key Use Cases

1. Delivery Pricing

DecisionRules automates the calculation of delivery costs for online purchases, dynamically adjusting based on parameters such as customer location, product type, and logistics requirements. When a customer uses the O2 mobile app or web e-shop, the platform determines the delivery price based on selected products and the potential need for technician assistance. For example, if the customer opts for an internet service requiring on-site installation, the delivery cost may be waived as the technician brings the ordered items during the setup appointment. For smaller items like SIM cards, the system calculates the delivery cost dynamically based on logistics and customer preferences. The system also handles legal compliance—for new customers, it includes an identity verification step by courier, seamlessly integrated into the delivery price calculation.

2. Discount Management

The platform identifies and applies discounts based on purchase patterns, order volumes, and promotional campaigns. Customers buying multiple devices or high-value hardware automatically qualify for bulk purchase discounts, with DecisionRules dynamically determining the best applicable discount. During seasonal promotions like Black Friday, personalized discounts are applied instantly in the customer's cart. Discounts are also adapted based on regional sales trends or logistical cost factors.

3. Tariff Pricing

DecisionRules personalizes tariff pricing by analyzing customer history, current services, usage patterns, and eligibility for bundled offers. Long-time customers with broadband internet are offered discounted mobile data plans when combining services into a bundle. Customers with a 10+ year history qualify for exclusive loyalty pricing. Families with multiple lines receive shared data plans at reduced cost, tailored to their profile.

Key Use Cases

4. Logistics Optimization

DecisionRules enhances logistical efficiency by automating decisions around delivery methods. For fiber-optic installations, it ensures technicians are assigned based on proximity and service complexity. For smaller items, the system bypasses manual intervention, optimizing postal services and reducing operational costs. In disaster recovery scenarios, DecisionRules syncs with offline applications to ensure uninterrupted delivery planning via a robust management API.

5. Campaign Management and Batch Processing

DecisionRules supports batch processing for campaign management, targeting specific customer segments with tailored offers. It scans customer portfolios to suggest upselling opportunities, calculates optimal migration routes for customers transitioning from legacy plans, and generates personalized retention offers for high-value customers nearing contract expiration.

6. Dynamic Forms for Digital Health Scoring

DecisionRules serves as the backend for a dynamic form embedded within O2's mobile app for digital health assessments. Based on user responses, the platform calculates a personalized health score. The form adapts dynamically with follow-up questions based on answers provided, and can suggest partnered services or exclusive discounts for customers scoring within certain ranges. This use case highlights DecisionRules' flexibility beyond traditional telecom scenarios.

Results and Impact

FASTER RULE CHANGES

Rule Changes Reduced from Hours to Seconds

Decision-making processes that previously took hours or days were reduced to seconds, enabling real-time updates

IMPROVED ACCURACY

Error-Free Decisions with a Structured Rules Engine

Transitioning from groovy scripts to a structured rules engine eliminated errors, enhancing reliability.

ENHANCED TEAM PRODUCTIVITY

Business Teams Operate Independently from IT

By simplifying rule modifications, O2 reduced its reliance on IT, allowing teams to focus on strategic initiatives.

SCALABILITY

Modular CRM Architecture Ready for Future Growth

DecisionRules supported O2's modular approach to CRM redevelopment, preparing it for future growth.

REAL-TIME PERFORMANCE

All Decisions Executed Within 100 Milliseconds

All rules execute within 100 milliseconds, enabling instant delivery cost updates and responsive experiences across self-service platforms.

Future Plans

O2 plans to expand DecisionRules' role in its operations:

- **Broader Integration:** Migrating all custom business logic into DecisionRules to centralize and standardize processes.
- **Batch Processing:** Implementing batch recalculations for portfolio migrations and customer targeting campaigns.
- **Disaster Recovery:** Leveraging DecisionRules to support offline systems during disaster scenarios, ensuring business continuity.

By partnering with DecisionRules, O2 Czech Republic has significantly changed its approach to business rule management. The platform's agility, scalability, and ease of use have empowered O2 to modernize its operations, ensuring better customer experiences and operational excellence.

“DecisionRules has become a critical part of our infrastructure, streamlining processes and delivering results at incredible speed. We are excited to expand its usage across more business areas.”



Jan Černý

Head of CRM Analytics, O2 Czech Republic