How Wizz Air Achieved Operational Agility and Automated 1,000+ Daily Flight Checks with DecisionRules

Wizz Air centralized fragmented operational logic into DecisionRules and gave its Operations Control Center direct ownership of the rules that govern roughly 1,000 flights a day. Business users now create and update rules themselves, without complex release processes or vendor change requests.

wizzair.com

ABOUT THE CLIENT

Wizz Air is a European low-cost carrier known for its modern, fuel-efficient fleet anchored by the Airbus A321neo. Operational efficiency sits at the heart of how the airline runs.
The Operations Control Center (OCC) handles operations for roughly 1,000 flights a day and is responsible for monitoring flight legality, delays, and aircraft status across the schedule.

REGION	COMPANY SIZE	SECTOR	REVENUE
Europe	Enterprise	Aviation	~€1.5 billion

CONTINUOUS FLIGHT VALIDATION

~1,000 Flights Every 3–5 Minutes

Replaced manual operational checks with automated validation across the entire schedule, running continuously on a rolling multi-day horizon.

OPERATIONAL INDEPENDENCE

Business-Owned Rule Updates

Removed the reliance on core system vendors to implement new regulatory or operational constraints. OCC users now create and update rules themselves.

SINGLE SOURCE OF TRUTH

Centralized Operational Logic

Consolidated rules that previously lived in legacy systems, scattered documentation, and duty managers' knowledge into one transparent platform.

DecisionRules

The Challenge and Why

The Challenge: Fragmented Logic and Vendor-Dependent Change

Before implementing DecisionRules, Wizz Air's operational rules were spread across systems, documents, and people. Three problems compounded each other:

- **Fragmented logic:** Rules were defined in different applications. Some were documented, some were not, and some existed only in the memory of individual duty managers.
- **Manual scanning at scale:** Duty managers were manually scanning the line of flights to identify issues. The approach was error-prone and became impossible to sustain as the airline grew.
- **Vendor-dependent change:** Regulatory or operational updates required software release processes or vendor change requests before the business could act.

The result was an operation with limited clarity on why specific alerts were being raised, and no simple way to push a regulatory or operational update without going through a software release.

What Wasn't Working

- **Logic scattered across systems and people:** Rules existed in different applications, in documentation, and in human memory.
- **Manual flight-by-flight review:** Manual scanning of the line of flights was error-prone and unscalable.
- **No single source of truth:** The team lacked clarity on why specific alerts were being generated.

Why Wizz Air Chose DecisionRules

Wizz Air evaluated multiple tools by writing real airline use cases and trying to implement them in each, to see which platform was most capable. DecisionRules was selected on three criteria:

- **Scalability:** The engine could handle repeated processing of large flight batches across the schedule.
- **Integration fit:** DecisionRules could integrate with the internal data lake and event bus via REST API and JSON.
- **Business user independence:** OCC users could create and maintain rules themselves, without heavy IT intervention.

A proof of concept was run on representative use cases to confirm that the tool could handle the complexity of airline operations logic before the team committed.

DecisionRules

Implementation and Architecture

Wizz Air's solution architecture treats DecisionRules as the validation layer of a continuous flight-monitoring loop:

1. Data Ingestion

Wizz Air collects data from various source systems into a database and event bus. The data is converted to JSON and sent to DecisionRules via API.

2. Rule Evaluation

DecisionRules processes operational data in batches and returns alerts. Checks currently run every 3 to 5 minutes for activities scheduled within a rolling multi-day horizon.

3. Alert Delivery

Alerts are stored in cache. They are then displayed on the UI for the duty managers, who manage by exception rather than manual oversight.

4. Authoring and Testing

OCC users build and maintain rules directly in the DecisionRules UI. The team makes extensive use of the Playground and Test environments to simulate rule updates before pushing them live.

The DecisionRules platform integration itself was straightforward. The Wizz Air team and DecisionRules collaborated closely throughout the implementation process, with DecisionRules providing guidance on optimization.

DecisionRules

Key Use Cases

1. Aircraft Registration Workflow

The system alerts the OCC if an aircraft is assigned to a flight it cannot legally operate, for example because of short-runway restrictions or because the aircraft is in inactive status.

2. Operational Constraint Updates

When a specific airport changes its requirements, such as turnaround times for airports including Prague, business users update the rule template directly without a code release.

3. Other Operational Alerts

The platform raises alerts for issues such as expiring radio licenses and runway restrictions tied to specific aircraft types, which the OCC can act on before the day of operations.

DecisionRules

Results and Impact

CONTINUOUS FLIGHT VALIDATION

Around 1,000 Flights Checked Every 3 to 5 Minutes

DecisionRules automated operational checks across Wizz Air's flight schedule, replacing manual flight-by-flight scanning with continuous validation over a rolling multi-day horizon.

IMPROVED OPERATIONAL VISIBILITY

Alerts Generated Before Issues Disrupt Operations

The Operations Control Center now receives alerts for issues such as aircraft registration mismatches, inactive aircraft status, expiring radio licenses, and runway restrictions tied to specific aircraft types.

BUSINESS-OWNED RULE MANAGEMENT

OCC Teams Update Rules Without Complex Release Processes

Operational teams can create, test, and update rules directly in DecisionRules, giving them control over the logic that governs daily flight operations without depending on core system vendors.

FASTER OPERATIONAL UPDATES

Rule Templates Changed Without Vendor Change Requests

When airport-specific or regulatory constraints change, such as turnaround time requirements, Wizz Air can update the relevant rule templates directly instead of waiting for software releases.

SINGLE SOURCE OF TRUTH

Operational Logic Centralized in One Transparent Platform

Rules that were previously scattered across legacy systems, documentation, and individual duty managers are now managed in one place, making it clearer why specific alerts are raised and how operational decisions are made.

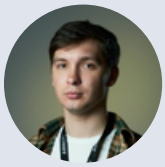
DecisionRules

Conclusion

By implementing DecisionRules, Wizz Air consolidated operational logic that previously lived across legacy systems, scattered documentation, and individual duty managers into a single, transparent platform owned by the operations team. The OCC now monitors every flight in the schedule continuously, updates rules without waiting on vendor cycles, and is building redundancy into one of the most safety-critical parts of the airline.

For Wizz Air, DecisionRules has become a critical component of the airline's digital transformation, bridging the gap between rigid legacy aviation systems and the need for agile, modern operations.

> “One of the main reasons we chose DecisionRules was that the business wanted to have full control of the rules. Previously, some logic was documented, but some existed only in the brain of the duty managers. We needed a specific place where we have control of all these items. Now, we can create the rules ourselves, keep them up to date, and make changes without complex release processes”



Daniil Romanov
Operations Control Center Team, Wizz Air