

# RetainIQ™ ARO – Clean Orchestration

## Deliverable #2 – Problem & Solution Statement

**Built With:** IBM Watsonx Orchestrate + AskOrchestrate  
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### **Problem: Fragmented Retention Workflows and Data Chaos**

In subscription-based and SaaS businesses, customer retention is mission-critical—yet the underlying data is messy, siloed, and inconsistent. Marketing, billing, and CRM systems each generate disconnected records containing customer IDs, risk scores, lifetime value, and engagement metrics.

Because of this fragmentation, teams spend hours manually cleaning data, cross-referencing spreadsheets, and segmenting users before they can even plan a single reactivation campaign. Small errors—duplicate emails, outdated activity logs, missing LTV fields—lead to poor segmentation, mistargeted campaigns, and ultimately silent churn.

Traditional automation only handles predefined triggers (“if payment fails, send email”), but does not think across steps. Companies need systems that can reason about data quality, plan actions dynamically, and produce ready-to-execute retention strategies without human intervention.

The challenge RetainIQ™ set out to solve: how to turn unstructured, noisy retention data into a fully actionable playbook using autonomous AI agents that collaborate end-to-end.

### **Solution: RetainIQ™ ARO – Clean Orchestration**

The RetainIQ™ ARO (Clean) workflow demonstrates how agentic AI within IBM Watsonx Orchestrate can replace fragmented manual processes with intelligent orchestration. Built as a 3-agent system, each agent specializes in a critical retention function:

#### **1. Data Mapper Agent – Clean & Normalize**

Receives raw JSON data from multiple sources. Cleans malformed entries, standardizes fields (id, email, ltv, risk\_score, status), and outputs a verified mapped dataset.

#### **2. Planner Agent – Segment & Strategize**

Analyzes LTV, risk score, and activity recency to create 3–5 meaningful segments. Applies retention logic to each segment (e.g., High-Value Low-Risk, At-Risk High-Value, Low-Value High-Risk). Outputs a structured plan.json with criteria, metrics, and recommended strategies.

#### **3. Playbook Agent – Generate Action Plan**

Transforms strategies into a final playbook defining message themes, CTAs, channels, cadence, and KPIs. Outputs a machine-readable playbook.json validated by AskOrchestrate.

These agents operate sequentially within Watsonx Orchestrate, sharing JSON outputs through auto-mapped data objects. The entire flow executes in seconds, producing fully cleaned and segmented data ready for real-world marketing automation.

### **Creativity & Impact**

RetainIQ™ ARO – Clean is innovative because it demonstrates true agentic coordination—each agent performs its own reasoning task while passing context to the next, mimicking a human team’s workflow in machine form. The system is schema-free, scalable, and easily adaptable to any business dataset or vertical. By automating data cleanup, segmentation, and strategy generation in one continuous loop, companies can reduce manual analysis time by over 80% and accelerate time-to-action for customer retention initiatives.

Creativity also lies in its presentation: the workflow is fully visual and traceable in Watsonx Orchestrate, with AskOrchestrate used for validation and auditability. Each run produces three JSON artifacts—mapped.json, plan.json, and playbook.json—proving transparent data flow and agentic reasoning.

### **Conclusion**

RetainIQ™ ARO – Clean Orchestration shows how IBM Watsonx can be used to create autonomous, explainable AI systems for business workflow automation. It bridges the gap between data engineering and marketing execution through modular, intelligent agent collaboration. The result is a solution that is simple, smart, and scalable—a true demonstration of how agentic AI can redefine customer retention in the enterprise era.