

Whitepaper: Next-Best-Action Retention Engine - w4

Singularity IO Sovereign Agentic AI Platform Zurich, Switzerland | www.singularityio.ch

NEXT-BEST-ACTION RETENTION ENGINE

Proactive Client Retention and Relationship Management Agent
Whitepaper for Banking & Wealth Management
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Executive Summary

In Switzerland's competitive private banking and wealth management sector, client retention is the ultimate competitive advantage. Traditional CRM systems are passive — they record history but fail to act proactively.

The **Next-Best-Action Retention Engine** is a sovereign, autonomous agent that continuously monitors client behavior, predicts churn risk, and executes personalized, timely retention actions — all while maintaining full DSG/GDPR and EU AI Act compliance.

Deployed on the **Singularity Agentic Platform** (Exoscale SKS, Swiss data centers), this Standard Agent delivers:

- **15–25% reduction in client churn**
 - **30–50% faster relationship management cycles**
 - **171–192% average ROI** with payback in 3–9 months
 - Full data sovereignty — nothing leaves Switzerland
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1. The Challenge: Silent Client Attrition in Wealth Management

High-net-worth clients are demanding, mobile, and increasingly approached by competitors. Key pain points include:

- Delayed detection of dissatisfaction (portfolio underperformance, life events, competitor offers)
- Generic, non-personalized communications that feel robotic
- Overloaded relationship managers handling hundreds of clients
- Compliance and documentation burden for every client interaction
- Fragmented data across CRM, portfolio systems, email, and external sources

Result: Average annual churn in Swiss private banking ranges from **8–18%**, with each lost client costing CHF 250k–2M+ in lifetime value.

2. The Solution: Autonomous Next-Best-Action Retention Agent

The Singularity **Retention Engine** is a stateful, multi-tool Standard Agent built with **LangGraph + Dify + n8n + OpenClaw** running inside your dedicated Swiss tenant.

It operates as your tireless digital relationship manager — always on, always compliant.

Core Capabilities

- Real-time client health scoring (behavioral, financial, sentiment, life-event signals)
 - Predictive churn modeling using sovereign LLMs (Ollama)
 - Autonomous orchestration of next-best-actions across channels (email, WhatsApp, Teams, secure client portal, phone briefing)
 - Human-in-the-loop escalation for high-value or sensitive cases
 - Full audit trail in LangSmith for regulatory compliance
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3. How the Agent Works (Technical Blueprint)

Architecture (Standard Agent on Singularity Platform)

1. Data Ingestion Layer (n8n + Qdrant)

- Continuous sync from core banking, CRM (Salesforce, Microsoft Dynamics, etc.), portfolio systems, external market data, and client communications.
- Vector memory for long-term relationship context.

1. Reasoning & Planning Layer (LangGraph)

- Stateful workflow: Observe → Analyze → Predict → Plan → Act → Learn.
- Parallel sub-agents: Risk Analyst, Personalization Engine, Compliance Guardian.

1. Action Execution Layer (OpenClaw + n8n)

- Drafts and sends personalized messages.
- Schedules meetings or portfolio reviews.
- Triggers internal alerts or automated rebalancing proposals.

1. Governance Layer (LangSmith + Kyverno)

- Every decision is traceable.
- EU AI Act high-risk safeguards and human oversight configurable.

Example LangGraph Workflow Snippet (production-ready pattern):

Python

```
from langgraph.graph import StateGraph

class RetentionState(TypedDict):
    client_id: str
    risk_score: float
    context: str
    next_action: str
    approval_needed: bool
```

Nodes: monitor, analyze, personalize, execute, review

4. Real-World Next-Best-Actions

The agent autonomously selects and executes from a rich playbook:

	Trigger	Next-Best-Action	Expected Impact
1	Portfolio underperformance >8%	Personalized market commentary + rebalancing proposal	Restore confidence within 48h
2	Large cash inflow detected	Proactive investment opportunity meeting	Increase AUM by 5–15%
3	Negative sentiment in communications	Empathetic outreach + relationship manager briefing	Prevent churn
4	Life event (marriage, inheritance)	Tailored advisory package	Deepen relationship
5	Competitor outreach detected	Loyalty incentive + exclusive event invitation	Win back mindshare

5. Proven Business Outcomes

Typical Results from Singularity Deployments

- **Churn reduction:** 15–25% within first 6 months
- **Relationship manager productivity:** +40–66% (more time for high-touch clients)
- **Client satisfaction (CSAT/NPS):** +18–35 points
- **AUM growth from existing clients:** +7–14% annually
- **Compliance & audit efficiency:** 60–80% reduction in manual documentation time

ROI Calculator Example (for a CHF 5bn AUM bank):

- Monthly tenant cost (Standard): CHF 2,990
- 12 agents: included
- Projected annual value: CHF 1.8M+ → **ROI 171–192%**

6. Why Deploy on the Singularity Agentic Platform

- **100% Swiss Sovereign:** Exoscale SKS in Swiss data centers
- **Dedicated Tenant:** Full isolation, guaranteed GPU slice, your own LangSmith instance
- **Rapid Deployment:** Start with Dify low-code, move to LangGraph for production
- **Compliance by Design:** DSG/GDPR + EU AI Act ready
- **No Vendor Lock-in:** Open-source-first stack (Ollama, LangGraph, n8n, Qdrant)
- **Scalable:** From pilot (Basic tier) to enterprise fleet (Enterprise tier)

Pricing Reference (Standard Tier – recommended)

- Monthly base: CHF 2,990 (12 agents included)
 - Extra agent: CHF 299/month
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7. Implementation Roadmap (4–8 Weeks)

Phase 1 (Week 1–2): Discovery, data integration, baseline churn model (Dify)

Phase 2 (Week 3–5): LangGraph orchestration + first live actions

Phase 3 (Week 6–8): Pilot with 50–200 clients, human oversight tuning, full rollout
Singularity IO offers

Professional Services to build and hand over the agent (one-time CHF 12,900 for Standard Agent).

8. Compliance & Security

- All inference and data processing in Switzerland
 - NetworkPolicy, ResourceQuota, RBAC, Kyverno policies enforced
 - Full audit trail for every agent decision
 - Configurable human-in-the-loop for high-risk interactions
 - Ready for FINMA/EU AI Act audits
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Conclusion

The **Next-Best-Action Retention Engine** transforms reactive relationship management into proactive, intelligent client stewardship — the new standard for Swiss wealth managers who want to protect and grow their most valuable asset: client trust.

Ready to reduce churn and deepen relationships with sovereign agentic AI?

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