

AI-Powered Customer Churn Intervention System

Catching at-risk customers before they cancel — with AI reasoning, tiered response logic, and a human-approval gate on every customer-facing action.

- n8n
- HubSpot CRM
- AI / LLM Reasoning
- Slack
- Workflow Automation

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DATA SOURCES MERGED	RISK TIERS	AUTO-SENT CUSTOMER EMAILS	HUMAN-APPROVED OUTREACH

1 The Challenge

Customer churn rarely happens without warning — but the warning signs are almost always scattered across disconnected tools. A drop in product usage lives in one system. An unresolved, frustrated support ticket lives in another. Renewal and account status live in the CRM.

No single person has time to manually cross-reference all three, for every account, every week. By the time churn is visible in the CRM, the customer has usually already decided to leave.

The real problem: the data to predict churn already exists — it's just never unified, scored, or acted on in time.

2 The Approach

Rather than building a simple alert system, the workflow was designed around one core principle: **the AI reasons and drafts, but a human always makes the final call before a customer is contacted.**

AGGREGATE	REASON	ROUTE
Merge account status (HubSpot), product usage signals, and support ticket sentiment into one record per customer.	An AI model scores churn risk with a written, auditable rationale — not just a number a team has to trust blindly.	Risk tier determines the response: log quietly, draft for approval, or escalate — never auto-contact a customer directly.

3 The Solution

An n8n workflow that pulls, merges, scores, and routes customer risk automatically — with a built-in idempotency check so accounts aren't re-flagged on every run.



- **Low risk** — logged silently. No alert fatigue for healthy accounts.
- **Medium risk** — AI drafts a personalized check-in email, held in Slack for human approval before anything sends.
- **High risk** — escalated directly to the account owner with full AI reasoning attached. No automated customer contact.
- **Idempotency check** — Airtable tracks flagged accounts so re-running the workflow doesn't spam duplicate alerts.

4 The Outcome

A system that surfaces at-risk accounts days or weeks earlier than manual review would catch them — while keeping every customer-facing decision in human hands.

Why it matters: for any business considering AI automation, the question isn't just "can it do the task" — it's "where does it stop, and who decides next." This workflow was built to answer that question by design, not as an afterthought.