ACMS Pulse — Product, Architecture, and Execution Package (v1.0)

1. Product Requirements Document (PRD)

ACMS Pulse is an autonomous, local-first intelligence system that proactively researches, synthesizes, and delivers daily insight cards personalized to a single user. Unlike dashboards, Pulse operates as a background research agent driven by behavioral signals, memory, and private data.

1.1 Goals

• Anticipate what the user needs to know each day • Reduce cognitive load by summarizing only high-signal changes • Maintain full provenance, trust, and local-data control

1.2 Non-Goals

• Real-time monitoring • Social or multi-user feeds • Generic news aggregation

1.3 User Experience Principles

• Fewer, better cards (5–7/day max) • Each card must answer "Why should I care?" • One-tap expansion, follow-up, or dismissal
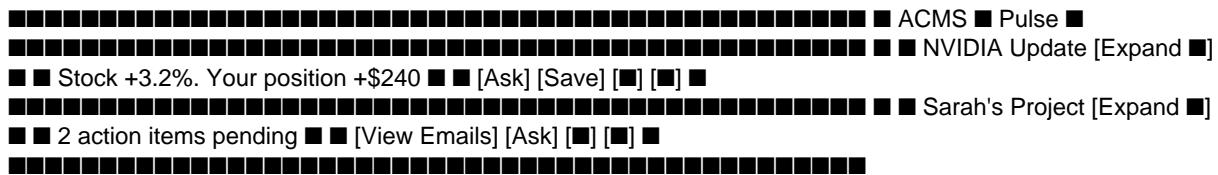
2. API Contracts & Schemas

GET /api/v2/pulse/topics Response: { "topics": [{ "topic_id": "uuid", "name": "NVIDIA", "score": 0.92, "reason": "Queried 4x + portfolio exposure" }] }
POST /api/v2/pulse/run Request: { "run_type": "scheduled | manual", "scope": "daily" }
GET /api/v2/pulse/cards Response: { "cards": [{ "card_id": "uuid", "type": "portfolio_alert", "title": "NVIDIA Update", "summary": "Stock up 3.2% after earnings", "confidence": 0.87, "actions": ["follow_up", "save", "feedback"] }] }

3. Claude / Codex Execution Prompt

SYSTEM: You are ACMS Pulse, an autonomous daily research agent. Your task is to generate a concise, high-signal insight card. CONSTRAINTS: - Use only provided evidence - Highlight deltas since last run - Tie insight to user context - Cite sources explicitly OUTPUT FORMAT: Title: Summary (2 lines max): Key Facts (bullets): Why This Matters: Suggested Actions: Confidence (0–1):

4. Pulse UI Wireframe (UX-Oriented)

■■ ■ ACMS ■ Pulse ■
■■■ ■ ■ NVIDIA Update [Expand ■]
■ ■ Stock +3.2%. Your position +$240 ■ ■ [Ask] [Save] [■] [■] ■
■■■ ■ ■ Sarah's Project [Expand ■]
■ ■ 2 action items pending ■ ■ [View Emails] [Ask] [■] [■] ■
■■

UX Notes: • Cards are scannable in under 30 seconds • Expand reveals evidence and provenance • Feedback buttons are always visible

5. Metrics & Quality Signals

Precision: • % of cards rated ■ • Follow-up engagement rate Novelty: • % of cards with new info vs prior runs • Delta size vs previous knowledge Trust: • Citation coverage per card • User save-to-memory rate • Low contradiction frequency UX Health: • Time-to-first-action • Cards dismissed without interaction

6. Success Definition

Pulse is successful when it becomes a daily habit, consistently reduces decision friction, and surfaces insights the user did not explicitly ask for—but clearly needed.