SentientIQ™ Whitepaper
The Architecture of Emotionally Intelligent Marketing Systems
Version 1.0

Published: May 2025

Executive Summary

Sentient IQ^{TM} is the first marketing intelligence platform designed to think and act at the speed of human emotion. Traditional attribution and automation tools focus on clicks, sequences, and behavior. Sentient IQ^{TM} goes deeper, measuring emotional readiness, volatility, and lift across the entire marketing journey.

At the heart of the platform lies a 7-layer multi-agent architecture built for explainability, autonomy, and live optimization. This whitepaper details the technical framework, agent structure, decision orchestration logic, and trust infrastructure that make SentientIQTM not just another tool — but the foundation of emotionally synchronized marketing.

1. Introduction: Beyond Behavior

Clickstream data is no longer enough. Consumers don't move linearly, and they don't buy because they clicked — they buy because they were ready. Emotional readiness, not just behavioral pathing, is the true indicator of conversion potential.

SentientIQ™ was built to capture that readiness.

2. Multi-Agent System Architecture

SentientIQ[™] operates through a 7-layer multi-agent framework:

Layer Overview:

- 1. Data Collection Agents Aggregate and normalize incoming signals across platforms
- 2. Sentiment Detection Agents Detect emotional readiness, volatility, and intent
- 3. **Decision Intelligence Agents** Propose and evaluate campaign actions
- **4.** Activation Agents Trigger asset updates, media shifts, or pausing actions
- **5.** Attribution Agents Assign credit based on emotional lift, not just behavior
- **6.** Orchestration Agent Coordinates agent output into consensus-driven action

7. Ecosystem Awareness Agents — Monitor industry, competitive, and compliance changes

Each layer communicates asynchronously with the Orchestration Agent for real-time campaign adaptation and agent consensus.

3. Agent Interface & Consensus

All agents implement a shared interface, ensuring:

- Standardized input/output formats
- Embedded health and error monitoring
- Optional proposal evaluation functions

Decision-Making Model:

Agents pass structured proposals through a consensus engine with:

- Confidence scores
- Rationales
- Confidence intervals
- Action approvals or escalations

A 92% multi-agent prediction agreement rate was observed during validation testing.

4. TV Sentiment Intelligence

TV and OTT advertising present unique challenges in attribution. SentientIQ[™] addresses this with a dedicated **TV Sentiment Agent** capable of measuring emotional lift across 3-, 5-, and 10-minute exposure windows.

Emotional Volatility Index™ (EVI) Outputs:

- Lift scoring by spot and segment
- Volatility mapping by network/time/creative
- Cross-agent handoffs to budget and attribution agents

TV sentiment is now measurable. And actionable.

5. Sentiment-Weighted Attribution™

Traditional attribution models reward visibility — not influence. Sentient IQ^{TM} assigns credit to the touchpoints that actually moved the customer emotionally.

Attribution Inputs:

- Time decay, position, and pathing data
- Sentiment delta per interaction
- Engagement lift vs. baseline cohort

Outputs:

- Sentiment-weighted attribution scores
- Multi-touch emotional impact maps

6. Explainable AI (XAI) System

Trust is earned through transparency. All agent decisions in SentientIQ™ are accompanied by:

- Audit trails
- Natural-language rationales
- Alternatives considered
- Confidence intervals and supporting metrics

SentientIQ™ decisions are never hidden. They are fully visible and justified at every step.

7. Fault Isolation & System Integrity

Each agent includes:

- Local error boundaries
- Isolated fallback protocols

• Agent health scoring and status auditing

System-wide fault tolerance is ensured through:

- Graceful degradation protocols
- Redundant pathing
- Orchestrator-controlled fallback selection

8. Data Security & Privacy

SentientIQ[™] is built on a zero-synthetic-data principle:

- All emotional data is real, anonymized, and consent-based
- Differential privacy applied to aggregate signals
- Federated learning for on-device sentiment calculation
- Strict cross-agent data access control

9. Deployment Readiness & Testing Results

SentientIQ[™] has undergone comprehensive testing across:

- Agent consensus simulation (92% agreement across scenarios)
- Attribution model variance testing
- EVI prediction accuracy (91%)
- Pipeline performance benchmarks under degraded state

This system is now validated for enterprise-grade deployment.

10. Conclusion

SentientIQ[™] was built not to automate campaigns, but to orchestrate them emotionally.

We detect what matters. We explain what happens. We act when timing is right.

This is marketing's next intelligence layer. This is Sentient $IQ^{\mbox{\tiny TM}}$.