

AI-Powered Call Analytics Dashboard for Voice Agents

watch case study on youtube: https://youtu.be/bf_fGRgP9sA

Executive Summary

Businesses using AI voice agents often struggle to track call performance, customer sentiment, agent effectiveness, and operational insights across multiple AI assistants.

To solve this challenge, we built an AI-powered Call Analytics Dashboard that automatically collects call data from Retell AI voice agents, stores it in Supabase, and provides real-time analytics through a centralized dashboard.

The platform enables businesses to monitor call volume, call duration, customer sentiment, costs, transcripts, recordings, and agent performance from a single interface.

Client Challenge

The client was operating multiple AI voice agents for different businesses and needed a way to monitor performance across all agents.

The major challenges included:

- No centralized view of call activity
- Difficult to track total calls and call durations
- Hard to review call recordings and transcripts
- Manual effort required to analyze agent performance
- No real-time operational insights

The client wanted a dashboard that could automatically collect and display all important call metrics in one place.

Solution Overview

We designed and developed a complete AI Call Analytics Platform that integrates:

- Retell AI Voice Agents
- Webhooks
- Supabase Database
- Custom Analytics Dashboard
- Real-Time Reporting

When a call ends, Retell automatically sends call data to Supabase through webhooks.

The dashboard then processes and visualizes the information for business users.

System Architecture

Components include Retell AI Voice Agents, Automated Call Data Collection, Supabase, Database, and an Agent Management System. The platform stores call IDs, durations, statuses, costs, transcripts, summaries, sentiments, recordings, and timestamps.

Dashboard Features

- Total Calls Tracking
- Call Duration Analytics
- Customer Sentiment Analysis
- Call Cost Monitoring
- Recording Playback
- Transcript Search
- Real-Time Reporting



Real-Time Insights

The dashboard updates automatically whenever new call data is received.

Businesses can monitor:

- Active Agent Performance
- Customer Trends
- Call Outcomes
- Sentiment Changes
- Operational Metrics

In real time.

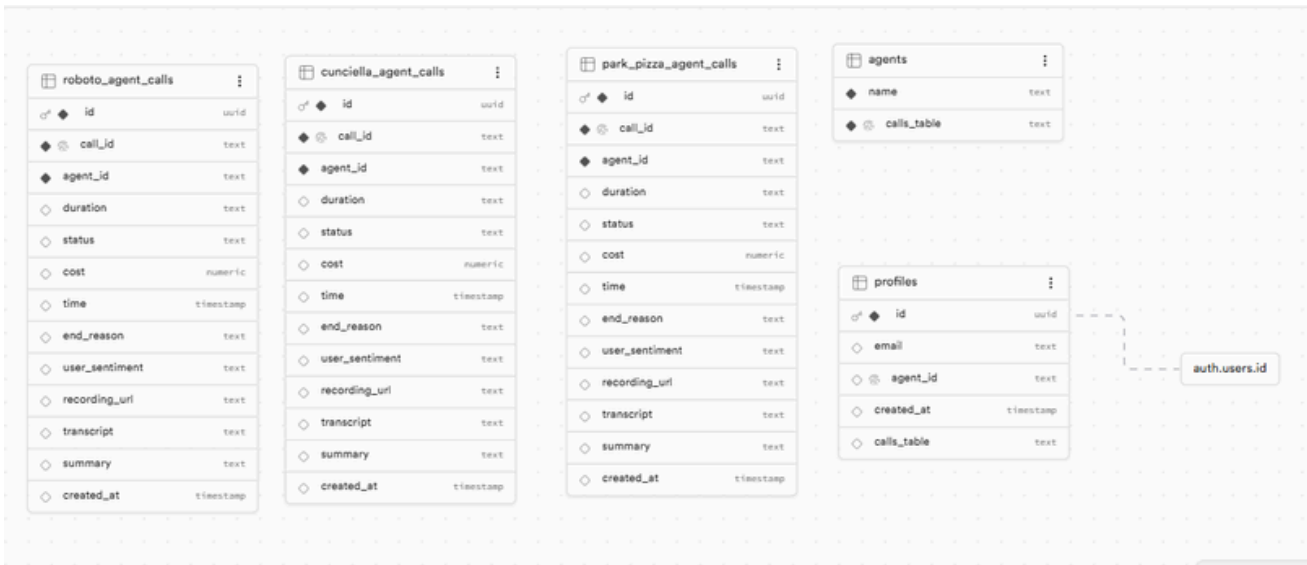
The screenshot shows a 'Call Details' modal window with the following information:

- CALL ID: call_306f9635d3cb5e06f1f4715cf1
- AGENT ID: agent_3e3134a993ede8da54d8a97dc4
- DURATION: 0m 49s
- STATUS: ended
- COST: \$0.14
- TIME: 6/22/2026, 11:59:56 AM
- END REASON: agent_hangup
- SENTIMENT: Neutral
- RECORDING: <https://dxc03zgdty9.cloudfront.net/306725837da530c325c3e235fb85432504f93aad98e126acf5955992fb53d3a7/recording.wav>
- SUMMARY: The user requested the menu link for Roboto Tokyo Grill, and after confirming their preference, the agent sent the menu link to the user's phone via text message. The call ended with a polite farewell.
- TRANSCRIPT: Agent: Hi—thanks for calling Roboto Tokyo Grill, what can I get started for you?

The screenshot displays the 'CX Voice Dashboard' with the following components:

- Navigation:** Voice Agent, CX Voice Dashboard, Dashboard, Call History.
- Dashboard Overview:** Monitor call activity, costs, and performance across your voice agents.
 - Total Calls: 1 (All calls)
 - Success Rate: 100% (Sentiment score)
 - Call Volume: 1 min (Total minutes)
- Call Activity:** A line chart showing activity over the last 7 days (Jun 17 to Jun 23).
- Recent Calls:** A table with columns for CALL ID, DURATION, COST, SENTIMENT, and DETAILS.

CALL ID	DURATION	COST	SENTIMENT	DETAILS
call_306f9635d3cb5e06f1f4715cf1	0m 49s	0.14	Neutral	View Details



Business Impact

- **Improved Visibility**
Business owners gain complete insight into AI agent performance.
- **Faster Decision Making**
Key metrics are available instantly without manual analysis.
- **Better Customer Understanding**
Sentiment tracking helps identify customer satisfaction patterns.
- **Reduced Manual Work**
Automatic collection of transcripts, recordings, summaries, and analytics eliminates manual reporting.
- **Scalable Architecture**
New AI agents can be added easily without redesigning the platform.

Technologies Used

- Retell AI
- Supabase
- Webhooks
- JavaScript / TypeScript
- React Dashboard
- Real-Time Analytics
- REST APIs

Conclusion

The AI Call Analytics Dashboard transformed raw call data into actionable business intelligence. By integrating Retell AI with Supabase and a custom analytics dashboard, businesses can monitor call performance, customer sentiment, costs, recordings, and transcripts from a single platform. The solution provides a scalable foundation for managing multiple AI voice agents while delivering real-time operational insights that help businesses improve customer experience and optimize performance.