PLANIVA

The Agentic S for Event Management

A Technical Deep-Dive

The "Analog Tax"

For Event Planners

Spend **80% of their time on manual coordination**, lacking real-time visibility and systematic tracking.

For Customers/Clients

Spend **250 hours planning an event**, with **83% feeling stressed** due to poor communication and transparency.

For Vendors

Struggle with **limited exposure**, manual inventory, and **justifying payments** amidst constant changes.

The Knot Report

Wedding Wire Report

Core Problems leading to this TAX Event Planning is a Massive System Integration Problem

Fragmented Data

Vendor info, client needs, and timelines live in separate, unstructured formats.

Manual Overhead

Planners act as human APIs, spending 80% of their time on manual coordination.

No Central State

Real-time visibility is non-existent, leading to costly errors and stress.

The One Stop Solution for Every Event

Proprietary AI Engine & "Event Blueprints"

Unified Command Center

Specialized AI Agents

The Vision

The client provides their idea, budget, and style.

The AI Blueprint

Planiva AI finds vendors, creates the timeline, and assigns every micro-task.

Real-Time Execution

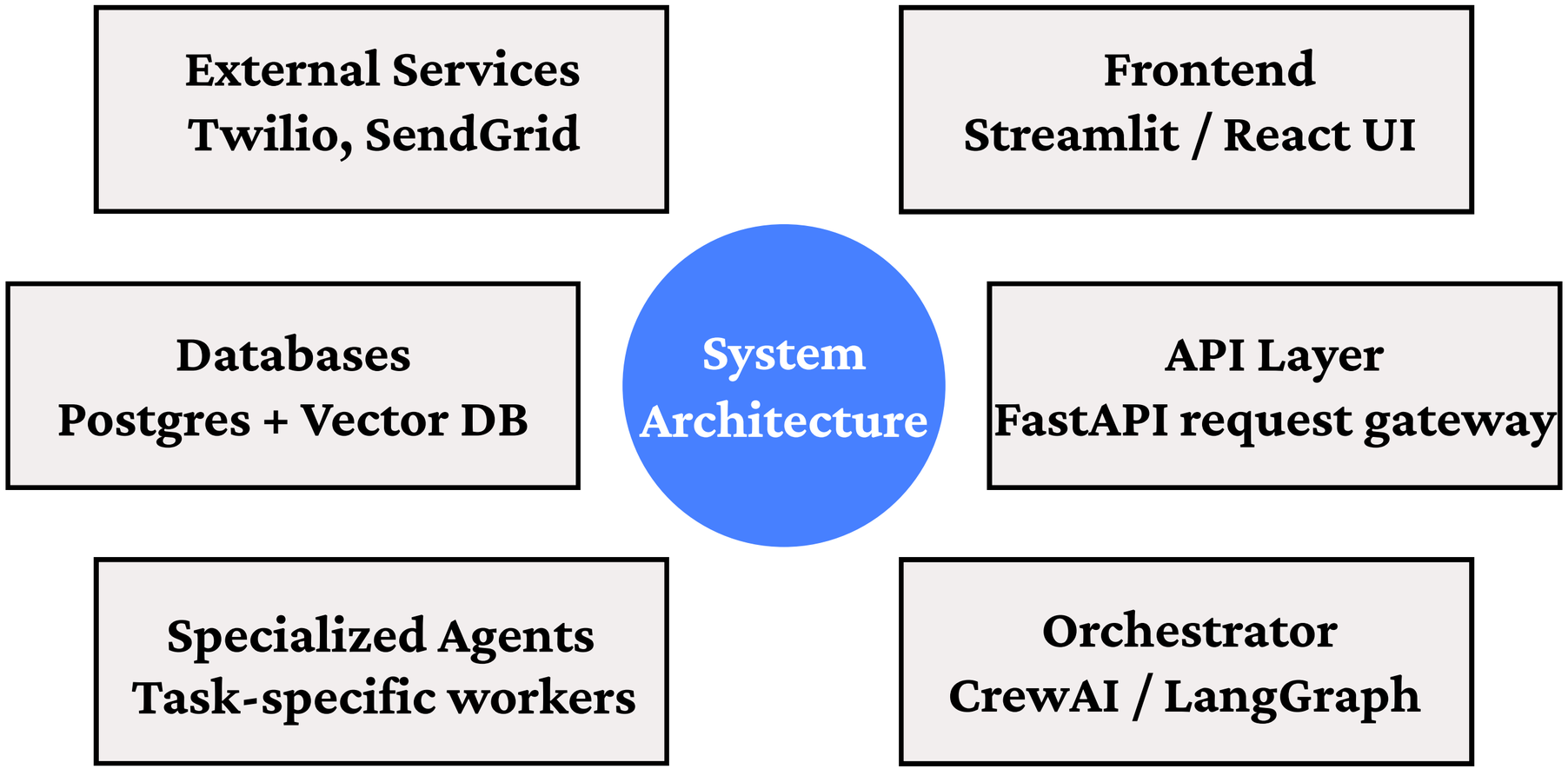
Everyone collaborates on one platform. The AI monitors progress and makes real-time adjustments.

Seamless Wrap-Up

Final financial closures & Event Reports

System Architecture: Built for Scalable Intelligence

A modern, decoupled architecture designed for complex AI workflows.



A Coordinated Team of Specialized AI Agents is Our Core IP

Event Planning Agent
Creates the optimal event blueprint.

Task Management Agent
Converts blueprint into actionable tasks.

CRM Agent
Automates all stakeholder communication.

The Event Planning Agent Crafts the Optimal Blueprint

This agent is a cluster of sub-agents responsible for the core planning logic.

Sourcing Agent

Finds and qualifies the best vendors.

Budgeting Agent

Optimizes vendor combinations for cost and value.

Timeline Agent

Creates a detailed, feasible event schedule.

Blueprint Agent

Compiles all data into a final document.

FLOW CHART TO UNDERSTAND THE WORKING OF THIS AGENT IN DETAIL

Orchestrator Agent

- Beam Search Tool
- Client Communication Tool
- State Management Tool

Sourcing Agent

- Hybrid Filter Tool
- Vendor Database Tool
- Vendor Ranking Tool

Budgeting Agent

- Budget Allocation Tool
- Fitness Calculation Tool

Timeline Agent

- Timeline Generation Tool
- Conflict Detection Tool

Blueprint Agent

- Blueprint Generation Tool
- Document Formatting Tool

The Task Management Agent Turns the Blueprint into Action

This agent bridges the gap between planning and execution.

Granularity Agent

Responsible for breakdown of blueprint into sub-tasks.

Resource & Dependency Agent

Validates the feasibility of the tasks, assigns ownership.

Prioritization Agent

Determines the urgency and required completion metrics for each task.

FLOW CHART TO UNDERSTAND THE WORKING OF THIS AGENT IN DETAIL

Orchestrator Agent

Blueprint Ingestion Tool

State Management Tool

Granularity Agent

Vendor Task Tool

Resource & Dependency Agent

Vendor Lookup Tool

Logistics Check Tool

Conflict Check Tool

Prioritization Agent

Timeline Calculation Tool

KPI/SLA Tool

The CRM Agent Automates All Stakeholder Communication

This agent eliminates the most time-consuming part of event planning: follow-ups.

Email Agent

Handles all formal, detailed, and document-heavy communication.

Messaging Agent

Handles quick, urgent, and informal real-time communication

AI Calling Agent

Leverages a text-to-speech AI service for proactive outreach, automated confirmations, and simple data collection.

FLOW CHART TO UNDERSTAND THE WORKING OF THIS AGENT IN DETAIL

Orchestrator Agent

Communication Strategy Tool

AI Calling Agent

Twilio Voice Service/AI Services

Response Parser Tool

Email Agent

Email- Templating Tool

Attachment Handler Tool

Messaging Agent

Twilio WhatsApp API

Concise Text Generator Tool

INPUT DATA

client_data = {
"clientName": "Priya & Rohit",
"guestCount": {"Reception": 150, "Ceremony": 100},
"clientVision": "We want an intimate, cozy wedding celebration in Bangalore with close family and friends. Focus on quality over quantity with excellent food and beautiful photography.",
"venuePreferences": ["Banquet Hall", "Restaurant"],
"essentialVenueAmenities": ["Air Conditioning", "Sound System"],
"decorationAndAmbiance": {
"desiredTheme": "traditional elegant",
"colorScheme": ["red", "gold", "maroon"]
},
"foodAndCatering": {
"cuisinePreferences": ["South Indian", "North Indian"],
"dietaryOptions": ["Vegetarian"],
"beverages": {"allowed": False}
},
"additionalRequirements": {
"photography": "Traditional photography with some candid shots",
"makeup": "Classic bridal makeup"
}
}

OUTPUT DATA

📋 Complete Wedding Plan

🎊 PRIYA & ROHIT'S WEDDING PLAN

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🏆 VENUE: Nandana Magnolious - South Bangalore, Bangalore

📍 Location: Bangalore

⭐ Rating Score: 0.6999

🏆 CATERER: TechFork

📍 Location: Bangalore

⭐ Rating Score: 0.5998

🏆 PHOTOGRAPHER: Thaha Rayan Photography

📍 Location: Bangalore

⭐ Rating Score: 0.3143

🏆 MAKEUP_ARTIST: Mala Beauty Parlour

📍 Location: Bangalore

⭐ Rating Score: 0.375

💰 BUDGET SUMMARY

Total Estimated Cost: ₹47,000

Original Budget: ₹800,000

Budget Remaining: ₹753,000

✅ Plan is within budget!

📋 Wedding Timeline & Checklist

📅 PRE-WEDDING TIMELINE (8 weeks before)

🔸 8 weeks: Finalize venue booking

🔸 7 weeks: Confirm catering menu and guest count

🔸 6 weeks: Book photographer and schedule engagement shoot

🔸 5 weeks: Book makeup artist and schedule trial

🔸 4 weeks: Send invitations

🔸 3 weeks: Finalize decorations and theme details

🔸 2 weeks: Confirm all vendor details and timeline

🔸 1 week: Final guest count and seating arrangements

📅 WEDDING DAY TIMELINE

🔸 8:00 AM - Makeup artist arrives

🔸 10:00 AM - Photographer arrives for getting ready shots

🔸 12:00 PM - Bridal preparations complete

🔸 2:00 PM - Groom's preparations

🔸 4:00 PM - Ceremony begins

🔸 6:00 PM - Reception starts

🔸 7:00 PM - Dinner service

🔸 9:00 PM - Cake cutting and celebrations

🔸 11:00 PM - Event concludes

✓ Created timeline and checklist

🎊 Demo completed successfully!

💡 This demonstrates the Event Planning Agent's AI capabilities

Future Works

- Connection of all 3 orchestrators together through a main orchestrator that will be the final chatbot based agent.
- LangSmith for LLM call tracing and debugging
- Guardrails AI for robust LLM output validation
- Enhanced monitoring with distributed tracing with rate limiting and circuit breakers for external API calls
- Testing and Documentation of Results, Work on making it deployment ready using Docker.

Core Challenges

- Data Scraping using Selenium and Beautiful Soup and parsing it into JSON output
- Converting JSON into Postgre SQL Database with JSONB and PGvector for LLamaIndex semantic search
- Making the communication between three MCP servers those are : Calculator server, vendor server, monitoring server
- Configuring State Management in Postgre SQL for managing the user input about confirmations
- Optimizing the Full Engine to run, can be done by hosting the full program on cloud services like AWS/Azure using Docker containers and images.

PLANIVA

Open to questions!