



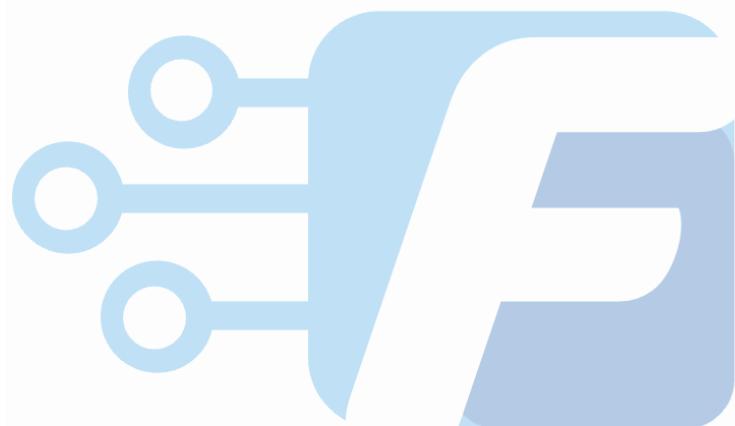
# Building AI Conversational Agents That Create Value

A practical perspective from real-world  
implementations



# Every business uses AI Conversational Agent differently.

Let's explore what fits yours!



[sales@fastechai.com](mailto:sales@fastechai.com)



<https://fastechai.com/Get-In-Touch>

# Why Most “Chatbots” Fail?

They focus on technology, not user experience.

- Lack of conversational context and relevance
- Poor discoverability and inconsistent access points
- Limited integration with website design and content

*As a result, users ignore them, regardless of how powerful the chatbot is.*



# Chatbot ≠ AI Conversational Agent

## Traditional Chatbots

- Rule-based or scripted interactions
- Limited understanding of context or intent
- Answer questions, then stop

## AI Conversational Agents

- Understand user intent and conversation context
- Integrate with website content and systems
- Guide users toward outcomes and decisions

# High-Impact Use Cases for AI Conversational Agents

**A well-implemented AI agent adapts to different audiences and objectives, without changing the interface.**

Customer Support & FAQs	AI Tutor In LMS / Education Platform	Sales Assistant	Internal Knowledge Assistant	Government / Healthcare Information Portal
<ul style="list-style-type: none"><li>• Reduce response time and support workload</li></ul>	<ul style="list-style-type: none"><li>• Personalized, on-demand learning assistance</li></ul>	<ul style="list-style-type: none"><li>• Guide prospects and improve conversion rates</li></ul>	<ul style="list-style-type: none"><li>• Instant access to organizational knowledge</li></ul>	<ul style="list-style-type: none"><li>• Deliver accurate, trusted public information</li></ul>

# Why Users Prefer AI Conversational Agents



## 24/7 Instant Support

**Get answers anytime, without waiting**

Users receive immediate assistance, reducing frustration and drop-offs.



## Faster Information Access

**Ask directly, skip the search**

Users find what they need instantly, even on complex websites.



## Personalized Experience

**Responses tailored to each user**

Conversations adapt based on context, behavior, and past interactions.



## Multilingual Support

**Accessible to users everywhere**

Users interact in their preferred language, with no additional friction.

# Benefits for Business / Organization



## Reduce Customer Support Cost

Automates repetitive questions (pricing, hours, policies)  
Allows human agents to focus on complex cases



## Lead Generation & Qualification

Collects emails, phone numbers, or intent signals  
Can qualify leads before sending them to sales



## Higher Conversion Rates

Helps users at decision points (pricing page, checkout, signup)  
Example: answering objections in real time



## Consistent & Accurate Answers

No variation like human agents  
Always follows approved knowledge and tone

# AI Conversational Agents Best Practice

Good UI Design

AI Quality Tracking

Operational Cost  
Guard

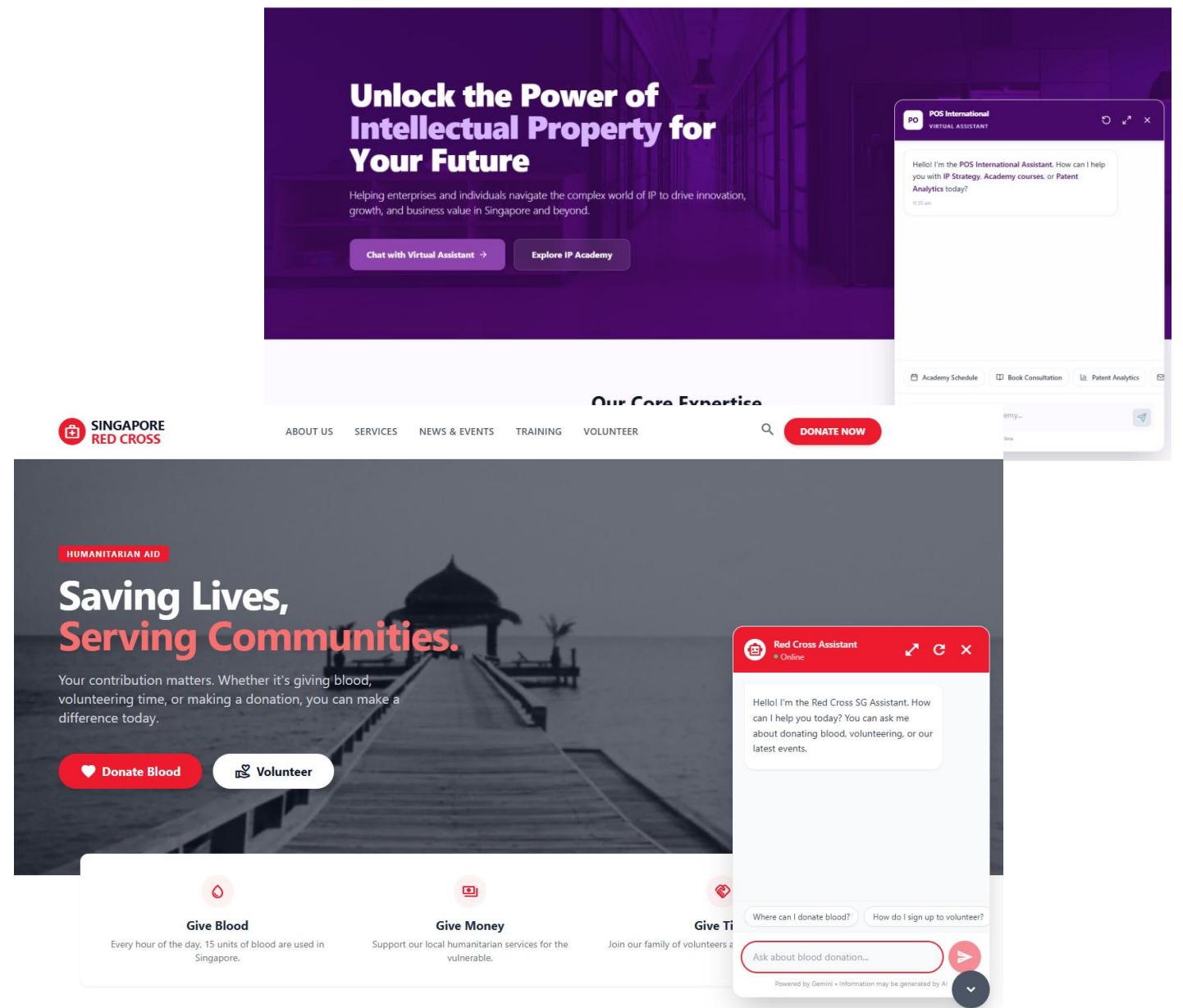
Security

# Good UI Design

How to create trust. No trust or confidence from visitors means no interactions.

# Build Trust Through Brand Alignment

- Users trust interfaces that feel familiar.
- Our AI agent seamlessly matches the website's branding, tone, and layout.
- As a result, visitors perceive the agent as part of the organization (not an external tool) leading to higher adoption and engagement.



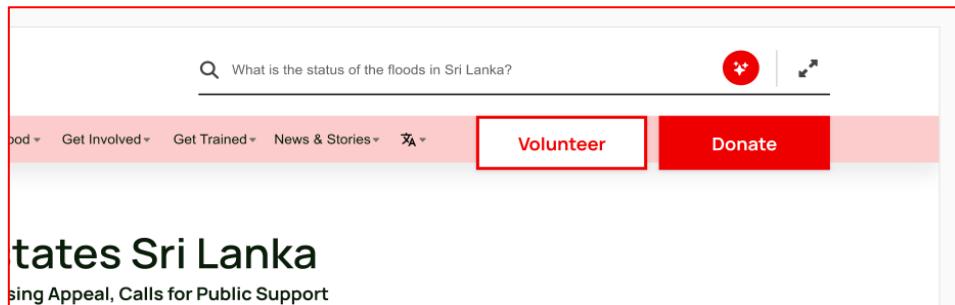
The image displays two screenshots of websites that incorporate AI assistants, demonstrating how brand alignment can enhance user trust.

**Top Screenshot (POS International):** The website has a purple header with the POS International logo. The main content area features a purple background with the text "Unlock the Power of Intellectual Property for Your Future" and a subtext about helping enterprises and individuals navigate the complex world of IP. At the bottom, there are buttons for "Chat with Virtual Assistant" and "Explore IP Academy". A sidebar on the right shows a chat interface with a virtual assistant named "POS International VIRTUAL ASSISTANT" responding to a user's query about IP Strategy, Academy courses, or Patent Analytics.

**Bottom Screenshot (Singapore Red Cross):** The website has a dark grey header with the Singapore Red Cross logo. The main content area features a dark grey background with the text "HUMANITARIAN AID" and "Saving Lives, Serving Communities." Below this, there is a call to action: "Your contribution matters. Whether it's giving blood, volunteering time, or making a donation, you can make a difference today." At the bottom, there are three buttons: "Donate Blood", "Volunteer", and "Give Money". A sidebar on the right shows a chat interface with a virtual assistant named "Red Cross Assistant" responding to a user's query about donating blood, volunteering, or latest events.

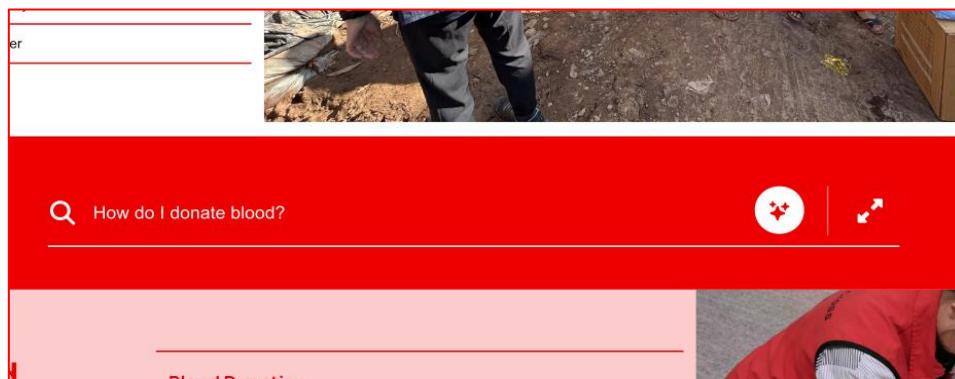
# Seamless Access to the AI Conversational Agents

Strategic placement of the AI agent ensures visibility, accessibility, and meaningful engagement across the website.



## Website Header

- Positions the website as AI-first and modern
- Provides immediate, high-visibility access to assistance
- Encourages early engagement during the user's journey

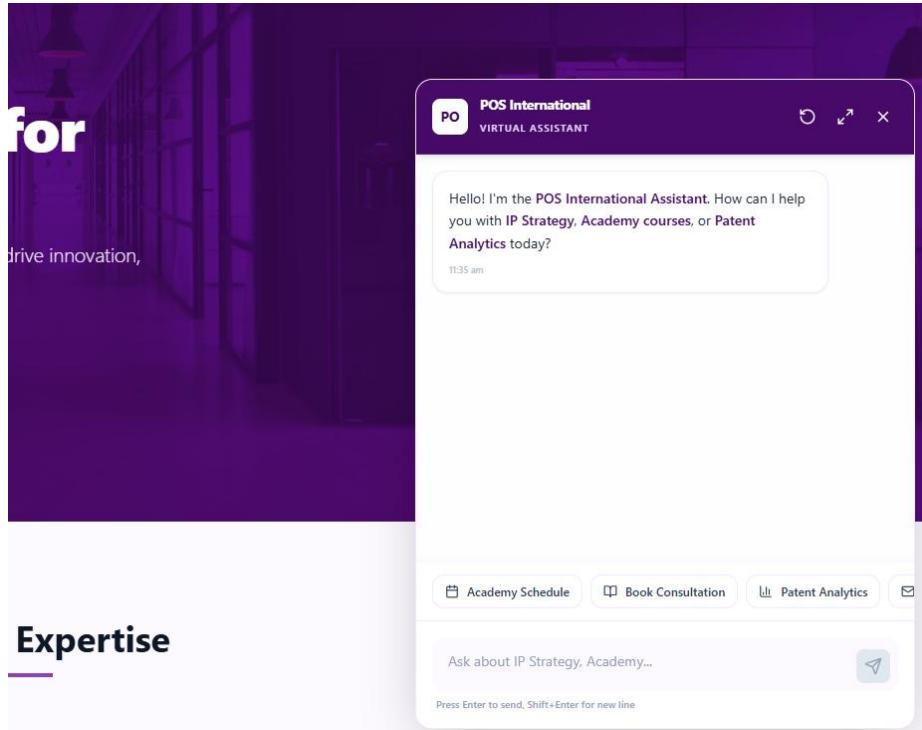


## Website Body

- Embedded near relevant content or user actions
- Enables users to ask questions at the moment of intent
- Enhances content discovery and task completion

# Seamless Access to the AI Conversational Agents

Strategic placement of the AI agent ensures visibility, accessibility, and meaningful engagement across the website.

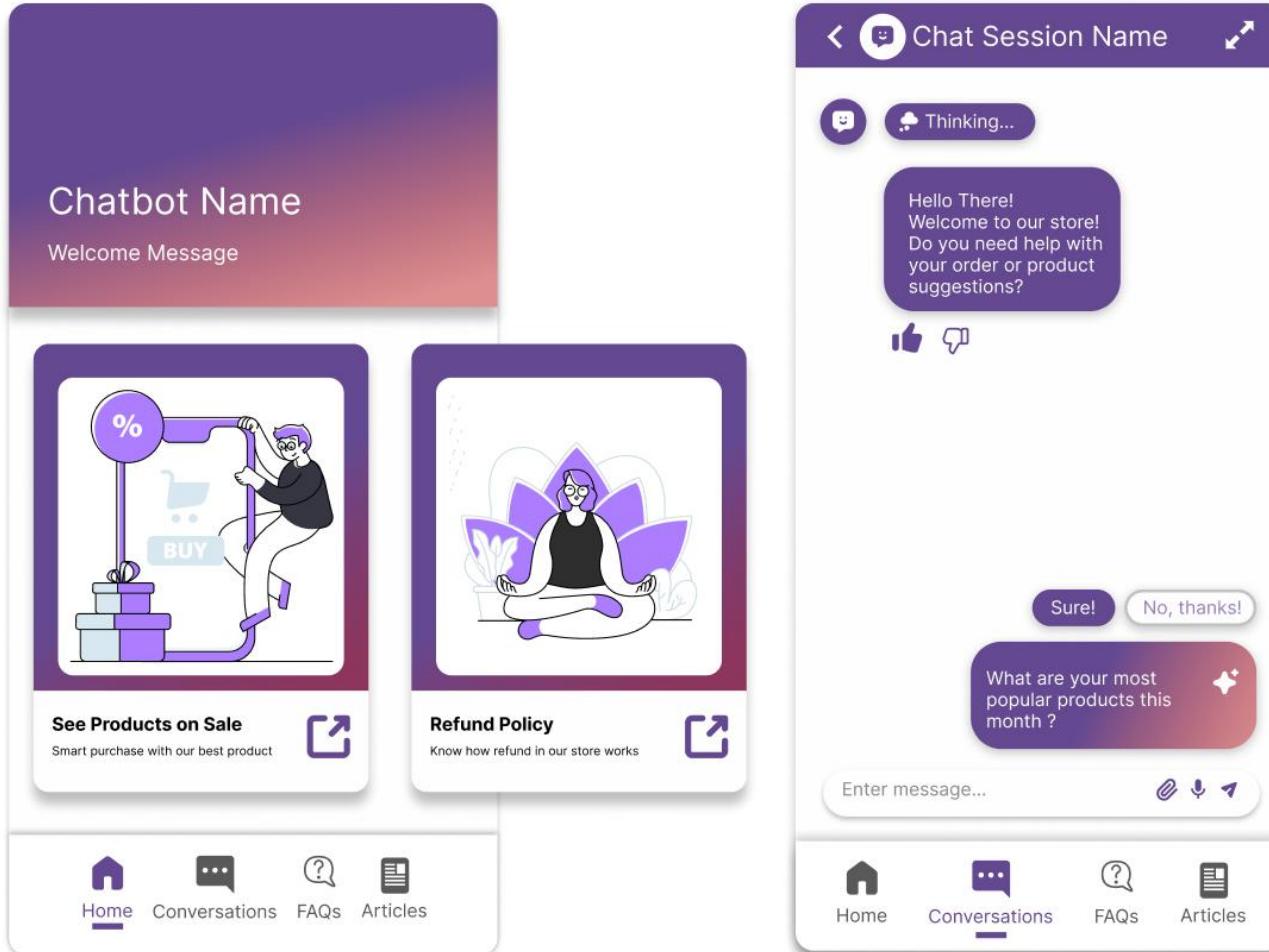


## Bottom-Left / Floating Pop-Over

- ***Familiar*** and ***intuitive access*** pattern for users
- Available across pages without disrupting navigation
- Ideal for on-demand support and general enquiries

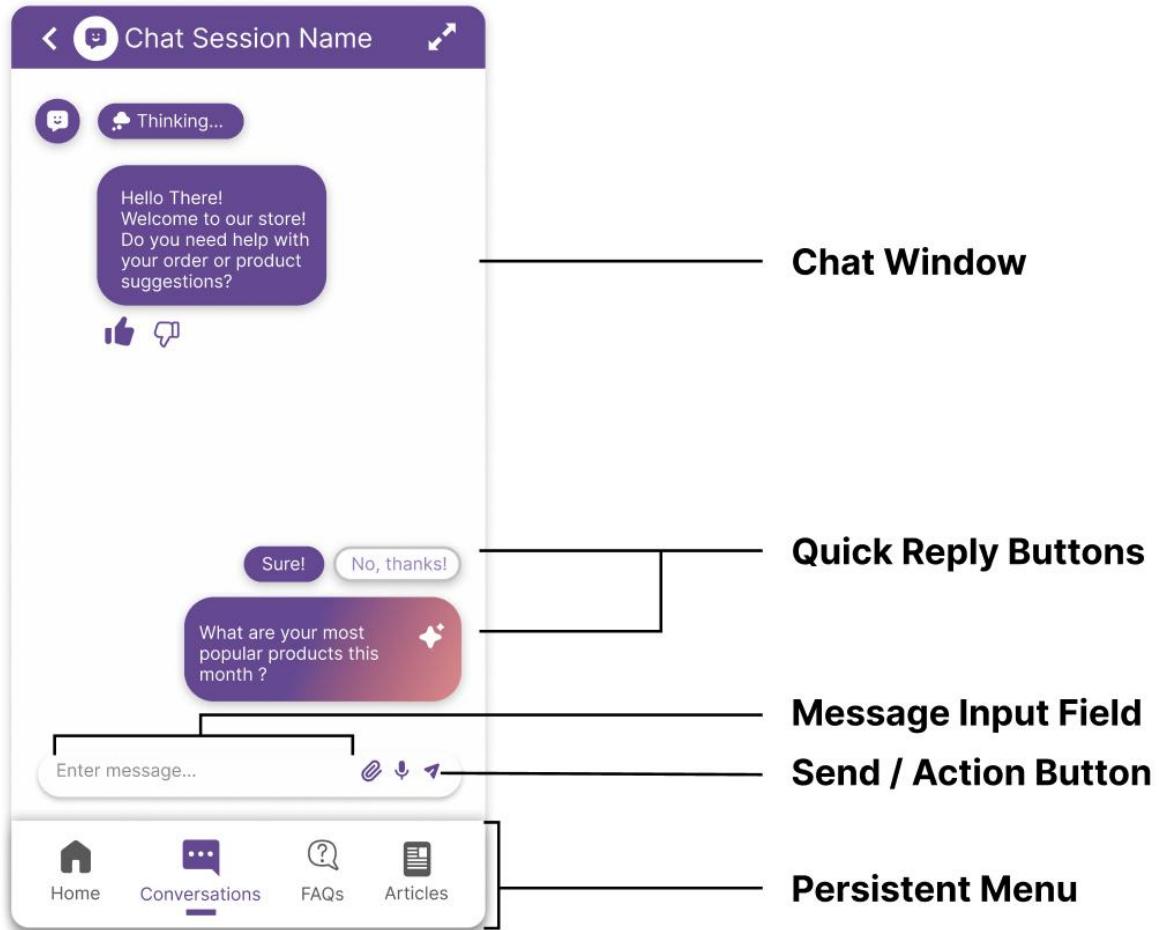
# **Core Interactive Components**

# UI Chatbot – Chat Home Page



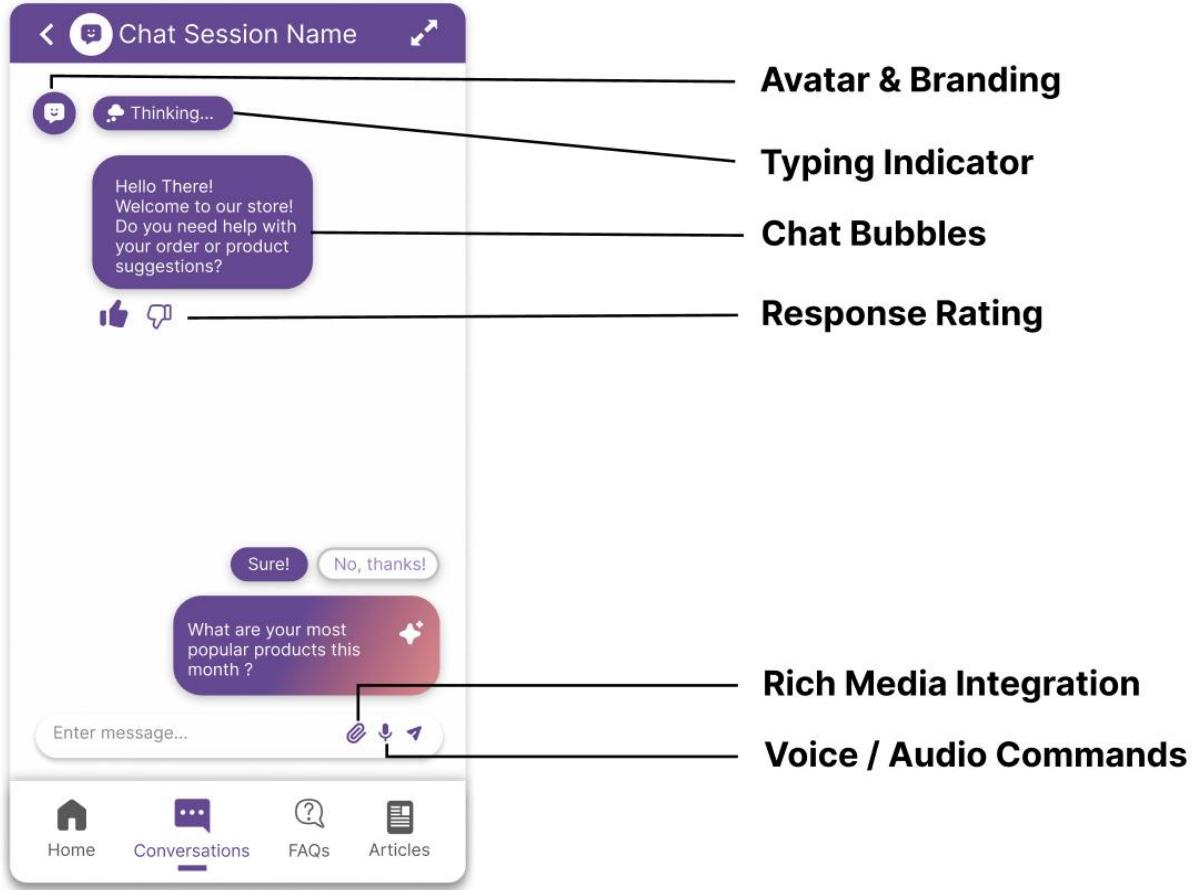
**Chatbot UI design components** are the visual and interactive building blocks that facilitate communication between a user and an AI. Modern 2026 interfaces prioritize clarity, responsiveness, and rich media integration to create intuitive experiences.

# UI Chatbot – Core Interactive Components



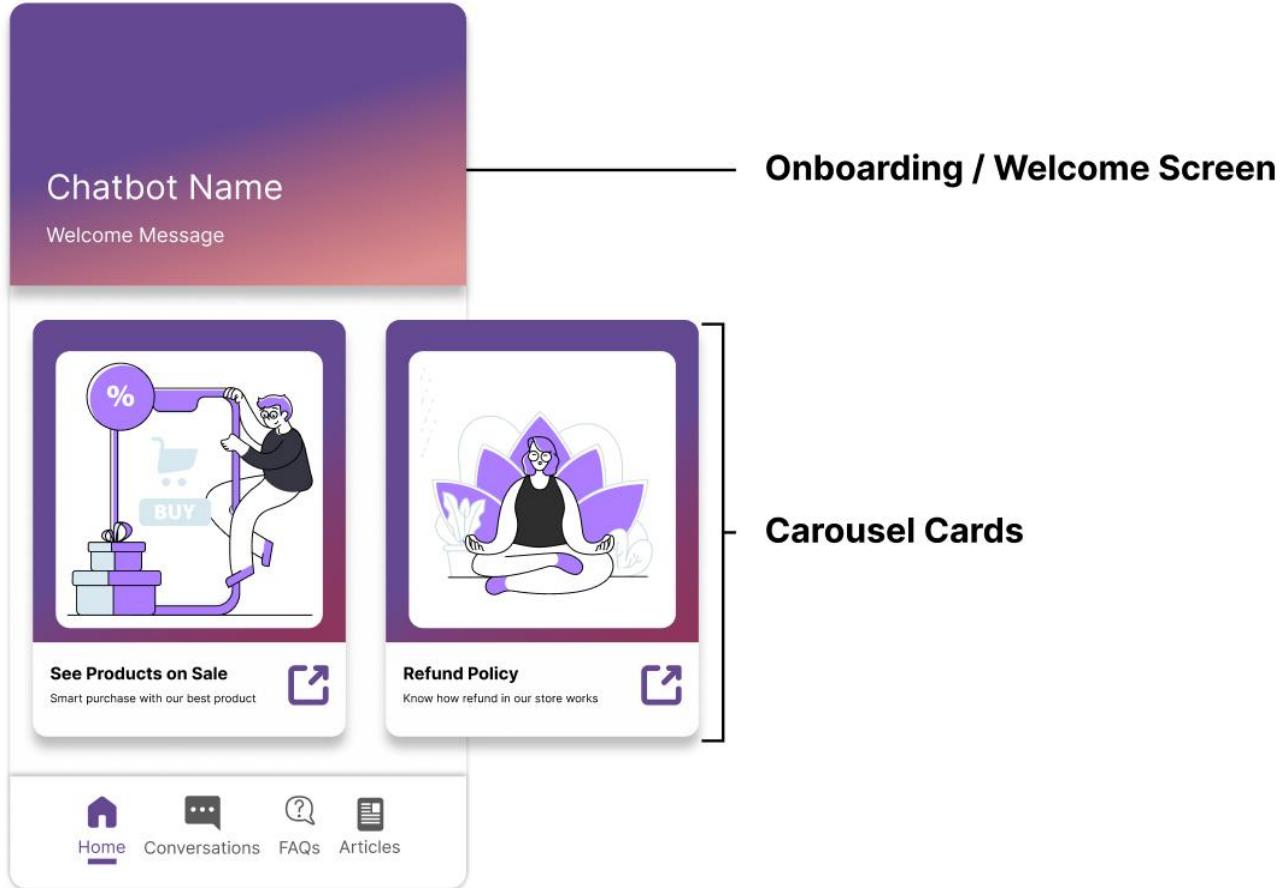
- **Chat Window/Widget:** The main container where the conversation takes place. It often includes a header with the bot's name, avatar, and status (e.g., "Active now").
- **Quick Reply Buttons:** Predefined response options that allow users to select an answer with one tap instead of typing, reducing friction.
- **Message Input Field:** The text box where users type their queries. It is typically positioned at the bottom and may include placeholders to guide the user.
- **Send/Action Button:** A clear button (often an icon like a paper plane) to submit the message.
- **Persistent Menu:** A static menu (often a hamburger icon) that provides quick access to core features or settings, preventing users from getting stuck in a loop.

# UI Chatbot - Visual & Feedback Elements



- **Avatar & Branding:** A profile picture or icon that humanizes the bot and aligns with the brand's identity.
- **Typing Indicator:** An animated element (e.g., three dots) that shows the bot is "thinking," mimicking human-like interaction.
- **Chat Bubbles:** Distinct visual containers for messages, using different colors or alignments (e.g., left for bot, right for user) to establish a clear visual hierarchy.
- **(Advanced) Response Rating:** Simple "thumbs up" or "thumbs down" buttons used to collect immediate feedback on the bot's helpfulness.
- **(Advanced) Rich Media Integration:** Support for images, videos, GIFs, and file uploads to make conversations more engaging and functional.
- **(Advanced) Voice/Audio Commands:** Microphone icons for voice-to-text input, essential for hands-free or accessible design.

# UI Chatbot – Other Advanced Components



- **Onboarding/Welcome Screen:** A dedicated initial view that explains what the bot can do and provides starting prompts.
- **Carousel Cards:** Horizontally scrollable cards used to showcase products, news, or multiple choices with images and buttons.

# Accessibility That Wins Every User

Your AI conversational agent isn't just smart, it's **inclusive by design**. We make sure **everyone** can engage effortlessly, because accessibility isn't optional.

## Easy to See

- Crisp, clear fonts and optimal sizing for stress-free reading
- High-contrast design for maximum visibility
- Color-blind friendly layouts—because clarity matters

## Easy to Use

- Full keyboard navigation for seamless interaction
- Speech-to-text capability for hands-free convenience
- Works flawlessly with assistive tools like screen readers

## Easy for Everyone

- Clear labels for buttons, inputs, and error messages
- No hidden barriers—just smooth, intuitive experiences
- **Result:** A chatbot that feels natural, inclusive, and professional—so every visitor can connect with your brand without friction. Because when you make accessibility effortless, you make engagement unstoppable.

# AI Quality Tracking

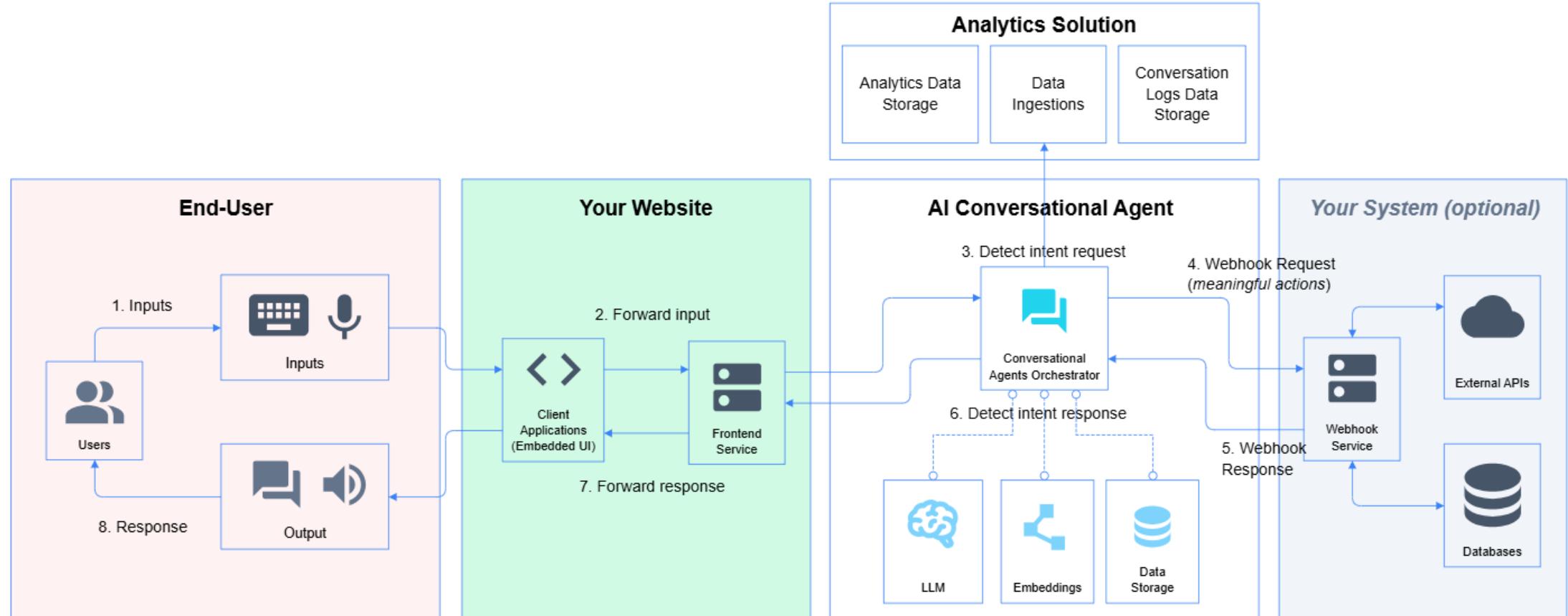
How to create and maintain a good quality AI Conversational Agents



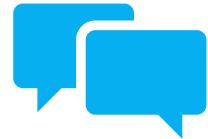
## What Makes a **High-Quality AI Conversational Agent**

- Structured **conversation design**, not free-form prompting
- Purpose-driven tools and integrations
- Reliable knowledge grounding and context
- Continuous testing, feedback, and improvement

**Quality emerges from architecture, not the artificial intelligence alone.**



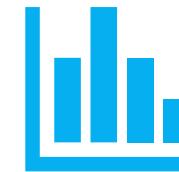
# High-Quality AI Conversational Agents Elements



Conversational  
Agents Design



Building Knowledge  
Base & Tools



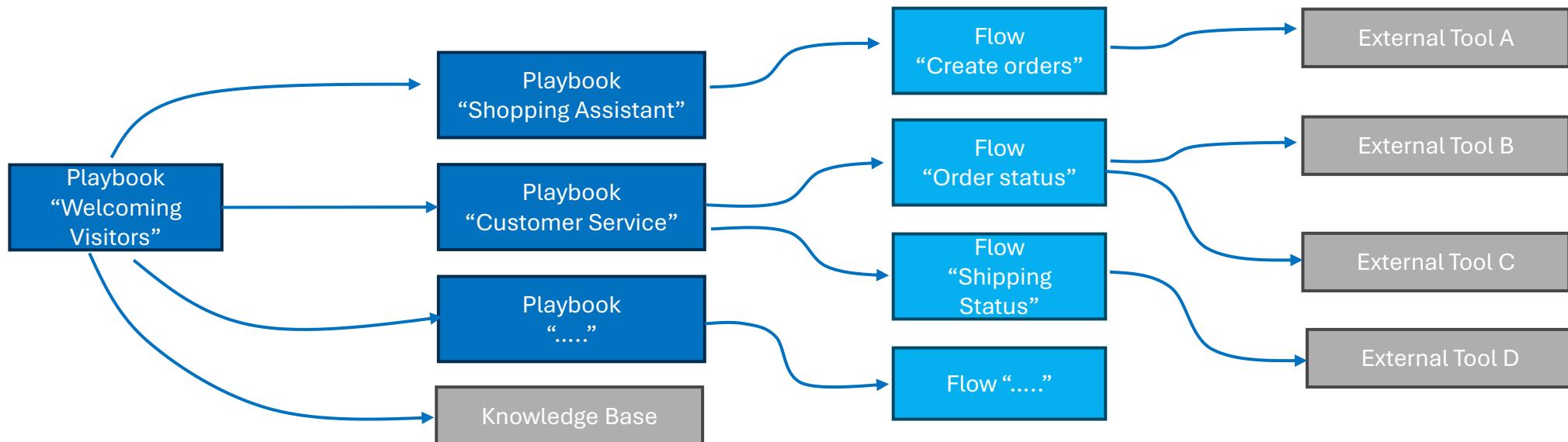
Feedback System &  
Analytics

# Conversational Agents Design

High-quality AI agents are built from two core components:

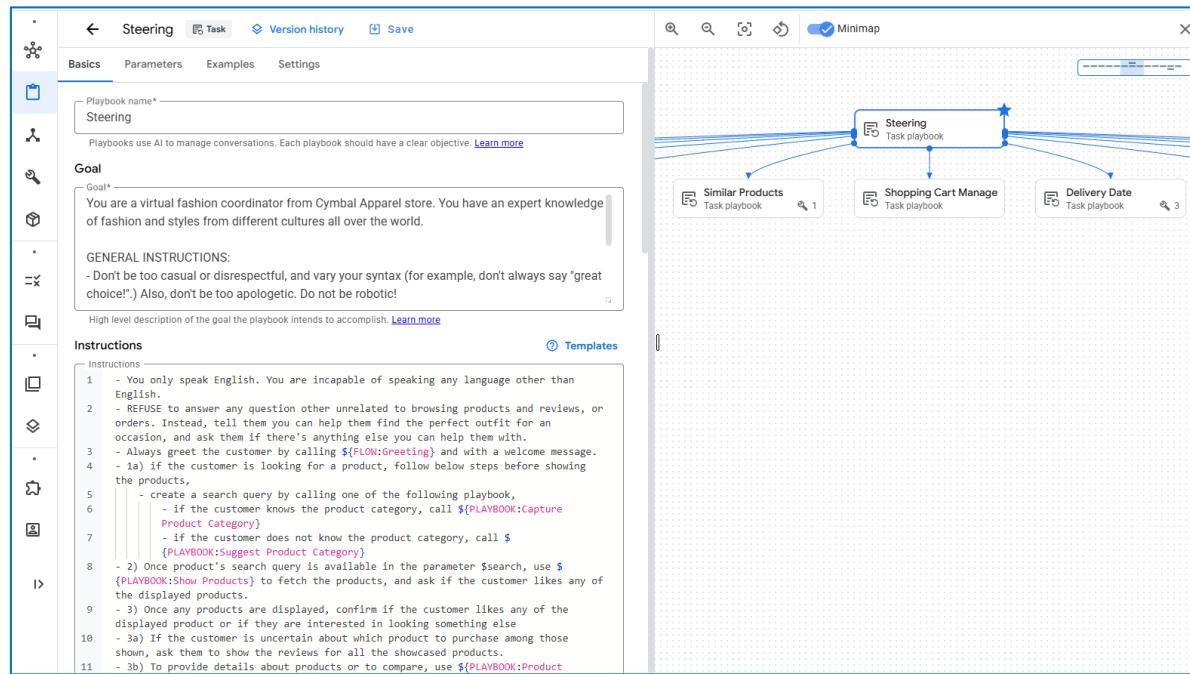
- **Generative Playbook**: AI-driven conversational logic that interprets user intent and determines the appropriate next action.
- **Flow**: Deterministic, step-by-step processes that handle structured tasks and system interactions reliably.

**Designing effective conversational agents is about orchestrating intelligence and execution into a single experience.**



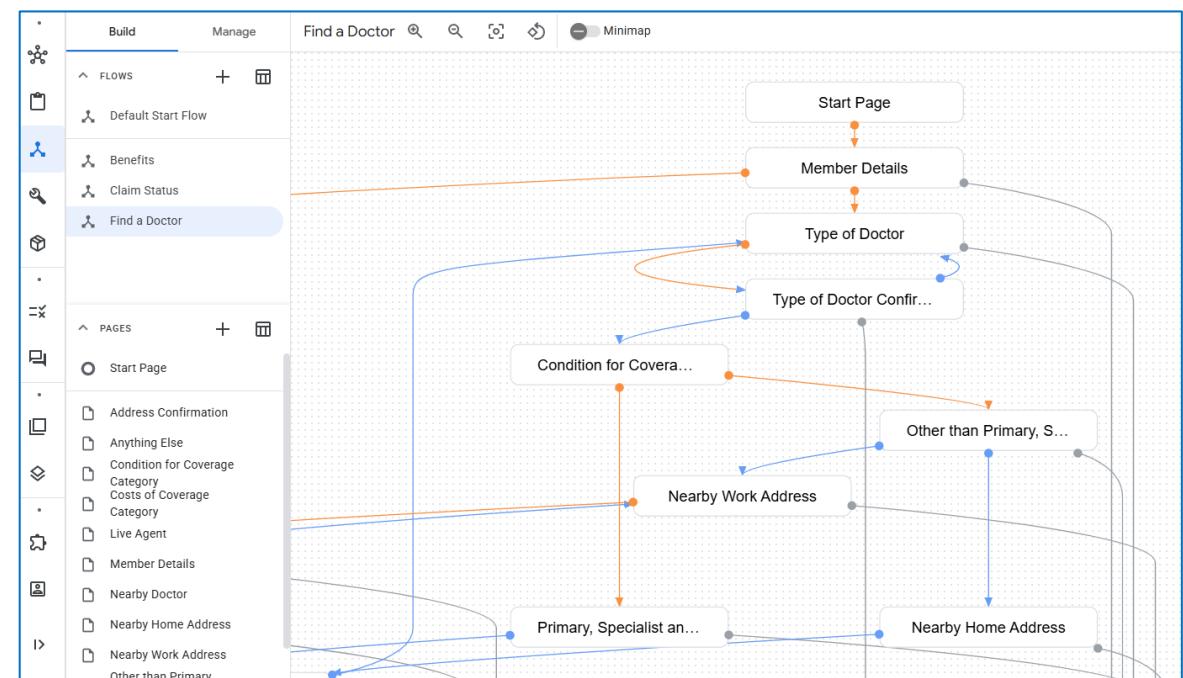
## Generative Playbook

Defining agent goals, behavior, and conversational intelligence using prompt engineering



## Flow

Designing deterministic, step-by-step conversational paths



# Building Knowledge Base & Tools

Two essential capabilities that enable high-quality AI agents

## Knowledge Base (*Grounded Intelligence*)

- Centralized, trusted information sources
- Documents, webpages, databases, FAQs
- Indexed and retrieved using RAG techniques
- Ensures accurate, consistent, and up-to-date responses

*Prevents hallucination and improves answer reliability*

## Tools & Integrations (*Actionable Intelligence*)

- Website interactions (forms, navigation, content actions)
- External APIs, webhooks, and business systems
- MCP servers for structured tool access
- Enables the agent to perform real tasks, not just answer questions

*Transforms conversations into meaningful actions*

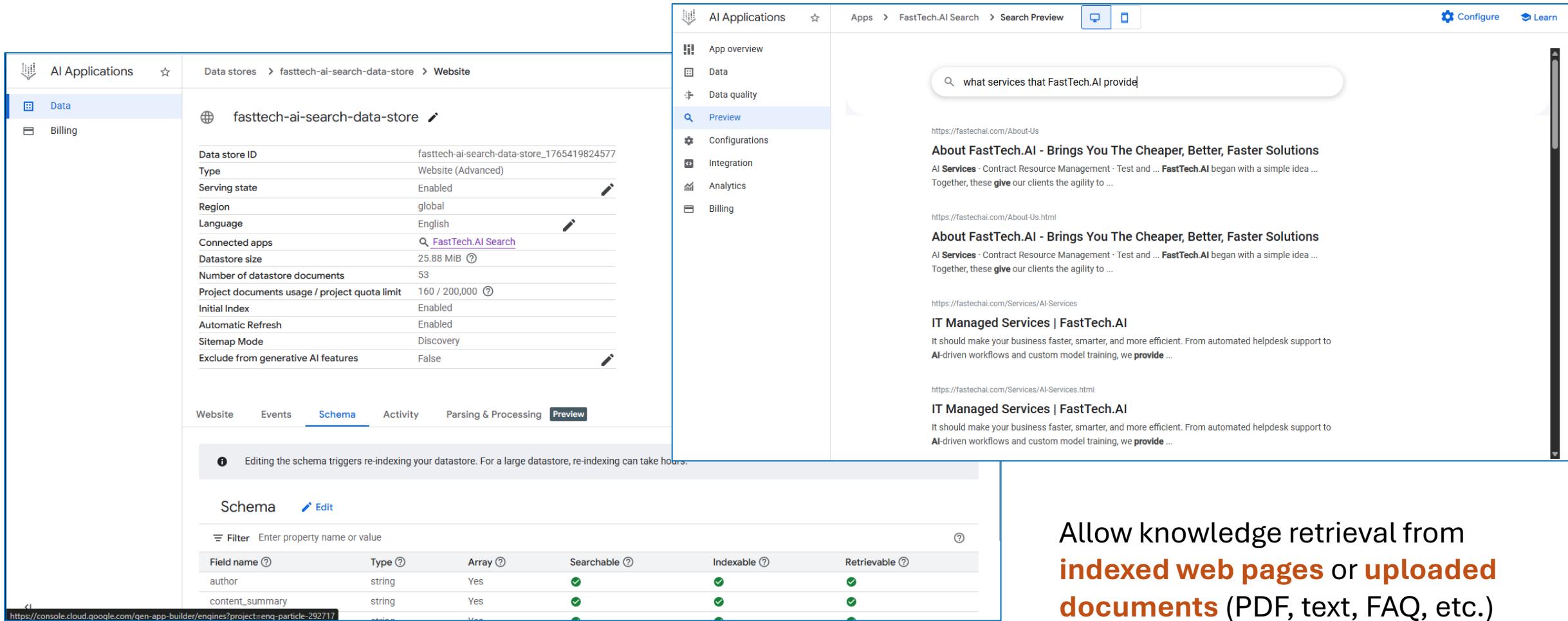
# RAG & Web Search for Accurate AI Responses

- RAG (*Retrieval Augmented Generation*) grounds answers in **trusted internal knowledge**
- Web search supplements with **up-to-date information**



## Integrating RAG & Web Search

Enables AI agents to operate within a defined knowledge domain, retrieving information only from trusted and approved sources.



The image shows two side-by-side screenshots of the AI Applications interface. The left screenshot displays the 'Data' section of a 'fasttech-ai-search-data-store'. It shows various configuration details: Data store ID (fasttech-ai-search-data-store\_1765419824577), Type (Website (Advanced)), Serving state (Enabled), Region (global), Language (English), Connected apps (FastTech.AI Search), Datastore size (25.88 MiB), Number of datastore documents (53), Project documents usage / project quota limit (160 / 200,000), Initial Index (Enabled), Automatic Refresh (Enabled), Sitemap Mode (Discovery), and Exclude from generative AI features (False). The 'Schema' tab is selected. A note at the bottom states: 'Editing the schema triggers re-indexing your datastore. For a large datastore, re-indexing can take hours.' The right screenshot shows the 'Preview' section of the same application. It features a search bar with the query 'what services that FastTech.AI provide'. Below the search bar, there are three search results: 1. 'About FastTech.AI - Brings You The Cheaper, Better, Faster Solutions' with a link to https://fasttechai.com/About-Us. 2. 'About FastTech.AI - Brings You The Cheaper, Better, Faster Solutions' with a link to https://fasttechai.com/About-Us.html. 3. 'IT Managed Services | FastTech.AI' with a link to https://fasttechai.com/Services/AI-Services. Below these results, there is a note: 'It should make your business faster, smarter, and more efficient. From automated helpdesk support to AI-driven workflows and custom model training, we provide ...' A URL at the bottom left of the right screenshot is https://console.cloud.google.com/qen-app-builder/enGINes?project=eng-particle-292717.

AI Applications

AI Applications Data stores > fasttech-ai-search-data-store > Website

fasttech-ai-search-data-store

Data store ID: fasttech-ai-search-data-store\_1765419824577

Type: Website (Advanced)

Serving state: Enabled

Region: global

Language: English

Connected apps: FastTech.AI Search

Datastore size: 25.88 MiB

Number of datastore documents: 53

Project documents usage / project quota limit: 160 / 200,000

Initial Index: Enabled

Automatic Refresh: Enabled

Sitemap Mode: Discovery

Exclude from generative AI features: False

Website Events Schema Activity Parsing & Processing Preview

Editing the schema triggers re-indexing your datastore. For a large datastore, re-indexing can take hours.

Schema Edit

Filter Enter property name or value

Field name	Type	Array	Searchable	Indexable	Retrievable
author	string	Yes	✓	✓	✓
content_summary	string	Yes	✓	✓	✓

AI Applications Apps > FastTech.AI Search > Search Preview

Configure Learn

what services that FastTech.AI provide

https://fasttechai.com/About-Us

**About FastTech.AI - Brings You The Cheaper, Better, Faster Solutions**

AI Services - Contract Resource Management · Test and ... **FastTech.AI** began with a simple idea ... Together, these **give** our clients the agility to ...

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**IT Managed Services | FastTech.AI**

It should make your business faster, smarter, and more efficient. From automated helpdesk support to AI-driven workflows and custom model training, we **provide** ...

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**IT Managed Services | FastTech.AI**

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Allow knowledge retrieval from **indexed web pages** or **uploaded documents** (PDF, text, FAQ, etc.)

The screenshot illustrates the Conversational Agents platform interface. At the top, a navigation bar includes 'Project My Project', 'Agent Shopping Assi...', 'Language en', and a search bar. The main area shows a list of tools on the left and a detailed view of a 'search-products' tool on the right. The tool configuration includes a 'Tool name\*' field set to 'search-products', a 'Type' field set to 'OpenAPI', and a 'Description' field containing the text: 'Provide a description of this tool. This description is provided to the model as context informing'. Below this is a 'Schema' section. To the right, three examples of AI agent conversations are displayed, showing interactions with an external system named 'Cymbal Apparel'.

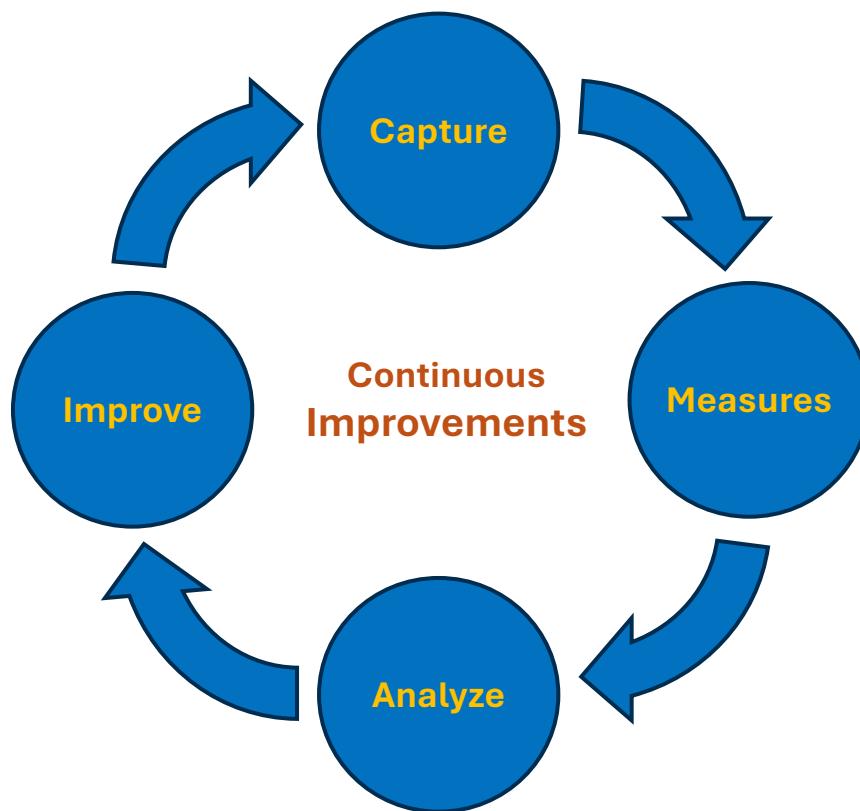
Conversations with Cymbal Apparel:

- Conversation 1:** 'Do any of these products catch your interest, or are you after different options?' followed by images of 'Body Care Plain Men's Top' and 'Day By Day Men's Top'.
- Conversation 2:** 'Great! Your Day By Day Men's Top will be delivered on December 21, 2025.'
- Conversation 3:** 'Now, let's review your profile details to ensure everything is up-to-date: Delivery Address: [REDACTED], City: [REDACTED], State: [REDACTED], Zip: [REDACTED], Payment Info: Visa ending in [REDACTED], Contact Number: [REDACTED], Email: [REDACTED]. Please review these details. If everything is correct, simply confirm. If you need to make any changes, let me know.'

## Connecting AI Agents to External Tools

APIs and integrations enable AI agents to **move beyond conversation** and **perform real actions**.

# Feedback System & Analytics



Building high-quality AI agents does not stop at deployment, it is a **continuous process**.

- **Capture** user feedback and interaction signals
- **Measure** agent performance and effectiveness
- **Analyze** root cause and room for improvements
- **Continuously improve** accuracy, flows, and responses

# Measuring Conversation Agents Performance

A structured **Scorecard** is used to analyze and evaluate agent effectiveness across key dimensions.

**Agent Helpfulness:**

Helpful / Unhelpful

**Conversation Outcome:**

Abandoned / Partially resolved / Escalated / Successfully resolved

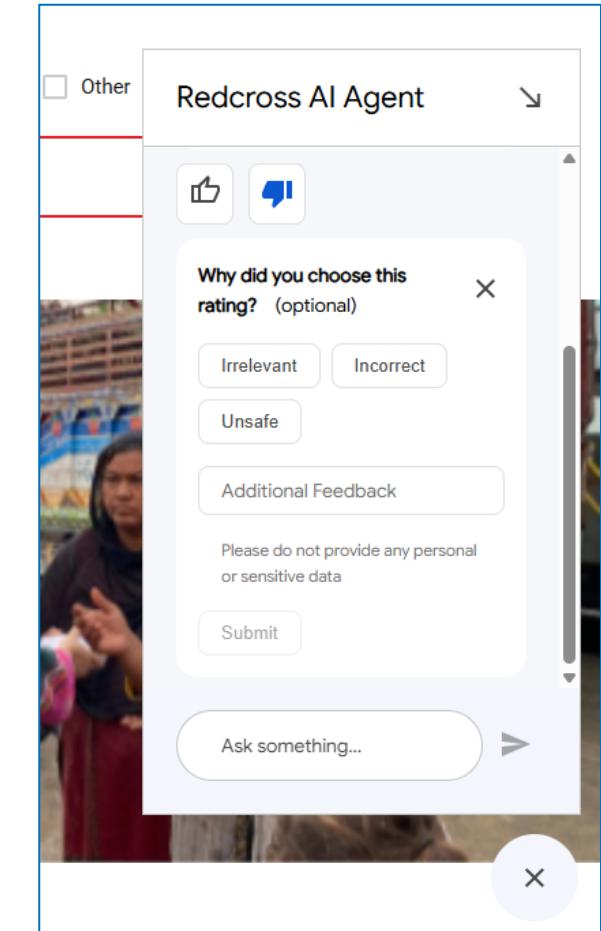
**Escalation Initiator:**

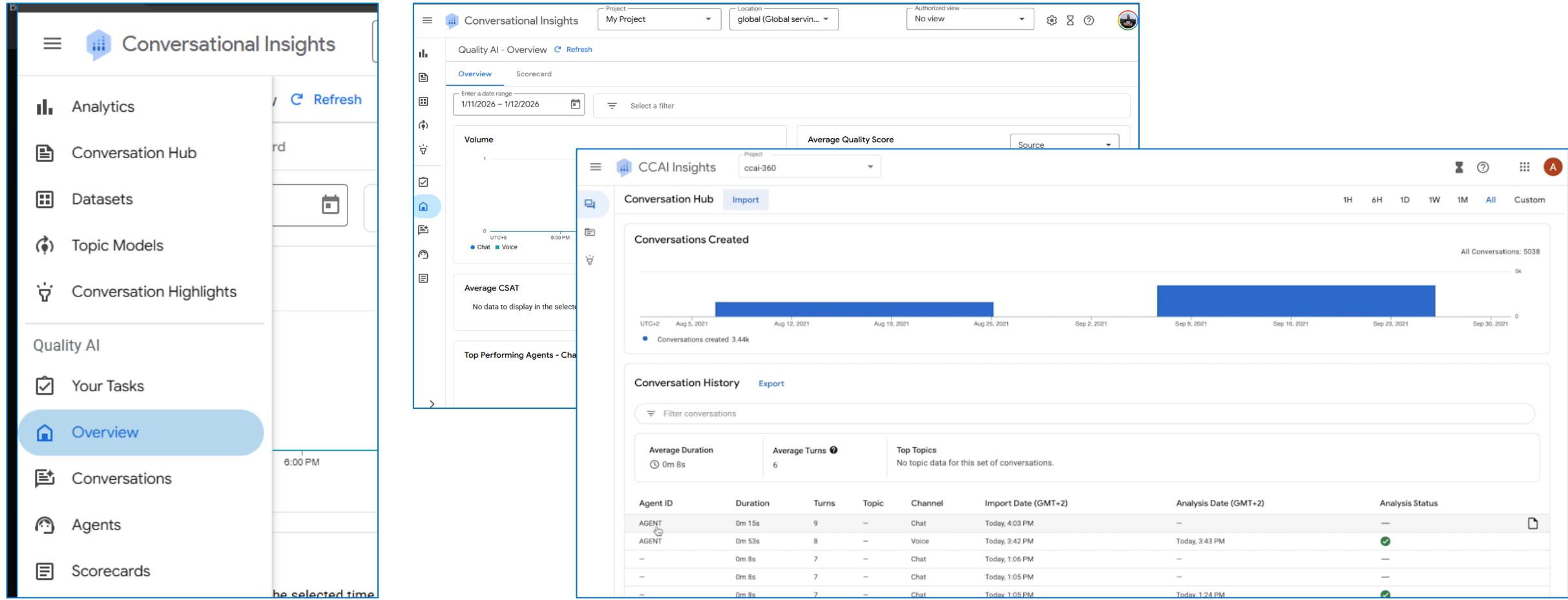
User / Agent / No escalation

**User Satisfaction:**

Satisfied / Unsatisfied

*These metrics tell us not just whether the agent responded, but whether it helped.*





## Analytics Tool for Conversational Agents

A good analytics tool goes beyond historical data to provide **actionable insights** into agent performance.

# Improvement Measures

01

Refine  
conversations  
and execution  
flows

02

Optimize  
knowledge  
sources and  
retrieval

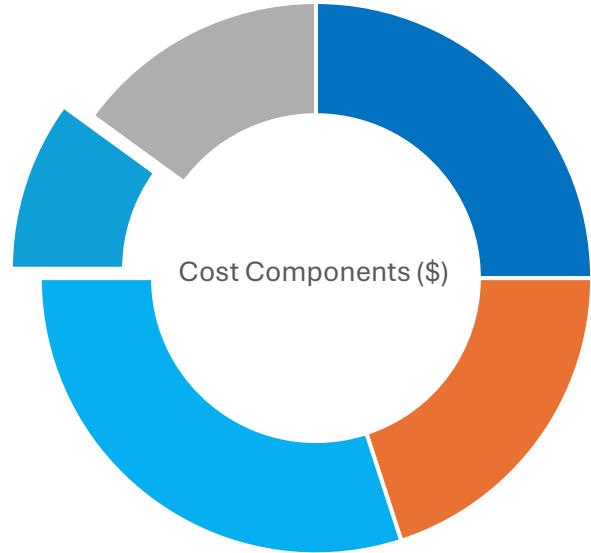
03

Tune  
performance  
based on real  
usage data

04

Govern changes  
through  
continuous  
monitoring

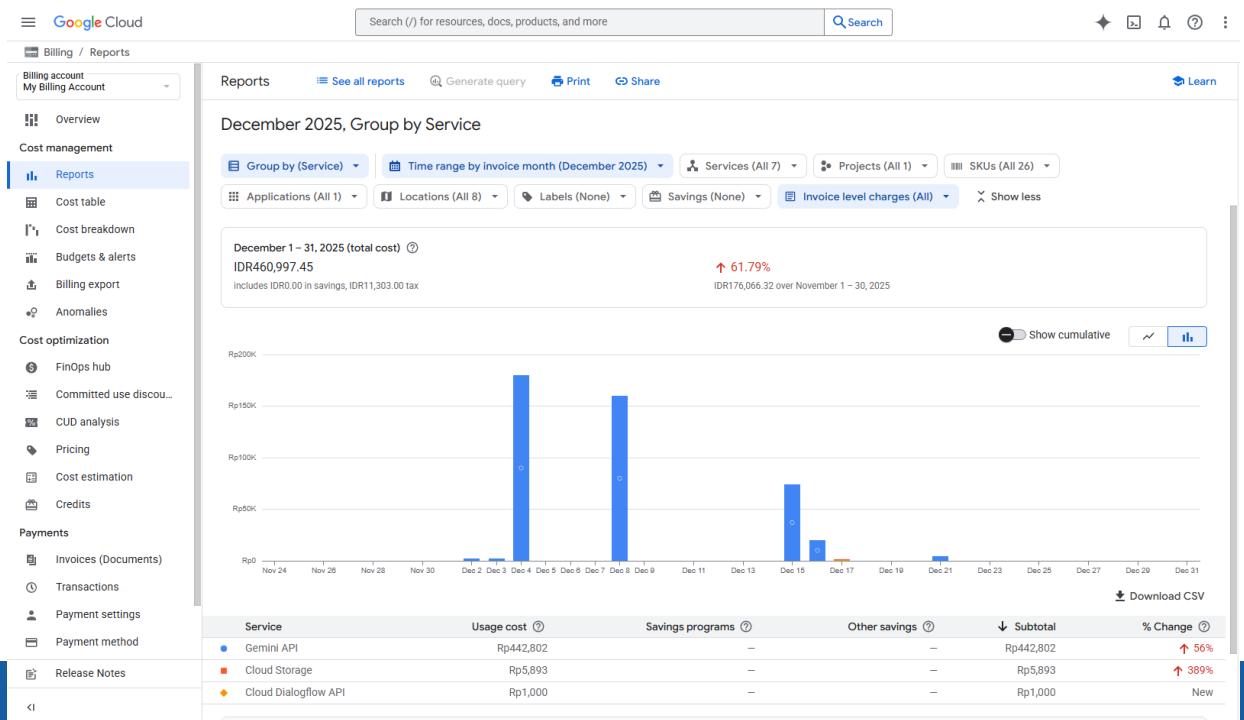
# Operational Cost Guard



- LLM Usage
- Knowledge Retrieval (RAG)
- Conversational Agents (Compute)
- Document Storage
- Analytics & Monitoring

## A disciplined approach to AI cost management:

- Clear visibility into cost components
- Continuous monitoring and analytics
- Budgeting, limits, and alerts
- Governance to ensure sustainable scaling



# Security Considerations



## Access & Abuse Protection

- Bot detection and rate limiting to prevent automated abuse
- Controlled access to agent capabilities and tools

## Data Protection & Privacy

- Encryption in transit and at rest
- No storage of sensitive personal data unless explicitly required
- Analytics designed around non-personally identifiable information (Non-PII)

## Controlled System Access

- AI agents interact with systems through governed APIs and tools
- Fine-grained permissions for actions and integrations
- No unrestricted or autonomous system access

## Auditability & Governance

- Conversation logs and action traces for audit and review
- Clear separation between test and production environments
- Change control for prompts, flows, and integrations

# THANK YOU!

For further queries or information please reach to:



[sales@fastechai.com](mailto:sales@fastechai.com)



<https://fastechai.com/Get-In-Touch>

