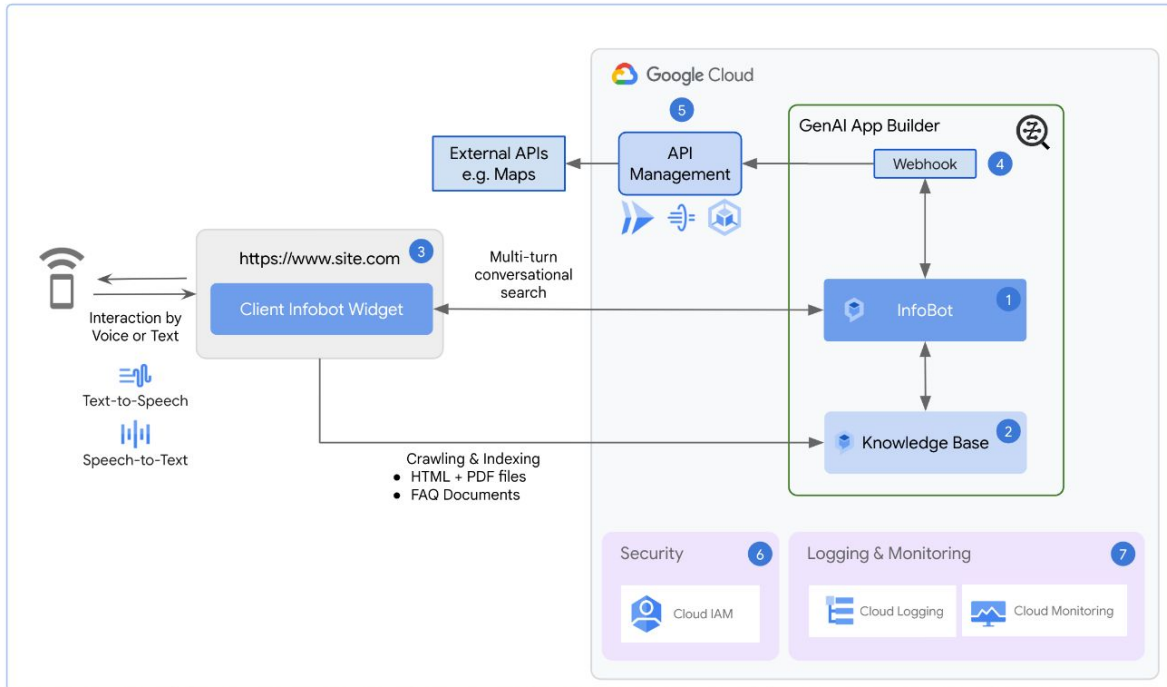


## Reference Architecture Medical Search [HCLS]

This reference architecture shows configuring Gen AI App Builder platform for medical information search.

**Use case:** Generative AI can speed and simplify the process of finding and synthesizing information for healthcare companies, helping them make better-informed decisions faster. We'll demonstrate how, using Google AI, a healthcare organization struggling with massive, siloed datasets – customer and vendor contracts, business documents, patient records, video, and more – can forge a single knowledge base, expedite synthesis and information extraction, and rapidly generate insights. With Google AI, research, manual information synthesis, and complex analysis takes seconds, rather than hours, days, or weeks.



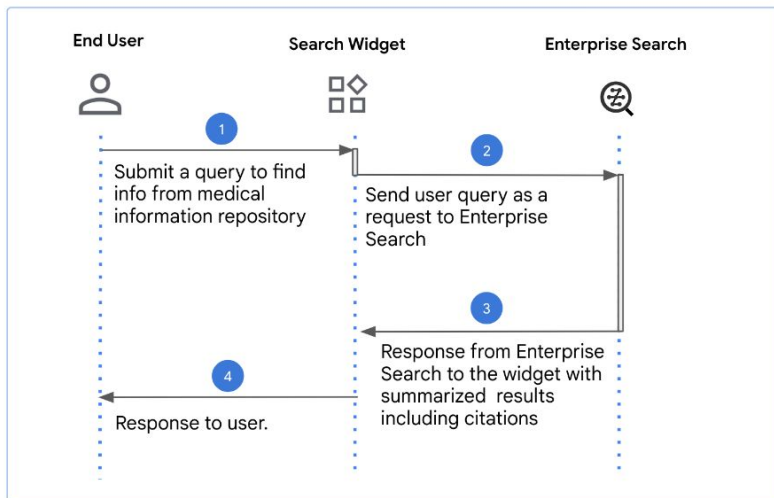
### Components Description

- 1 Configure Infobot:** An Admin User configures Infobot, a virtual agent powered by large language models, to create experiences such as answering questions based on manufacturer's website contents. [Infobot](#) is a [Dialogflow CX](#) feature that is part of Generative AI App Builder.
- 2 Configure Knowledge Base (KB):** Infobot uses [Dialogflow CX KB](#) to find answers for User's questions. The KB can be composed of your website domain, private documents, or FAQ pairs. After configuring Infobot, the virtual agent is published for users to interact with, using built-in integrations such as [Dialogflow Messenger](#) or custom widgets hosted on the manufacturer's website.
- 3 User interaction with Infobot widget:** User interacts with GenAI App Builder Infobot widget on the manufacturer's website to get answers to their questions. The user can interact with the Infobot using text or voice.
- 4 Call external APIs via Webhook:** Use Infobot webhooks to call APIs for external sources, such as 3rd party apps. For example, recommend businesses from a manufacturer's website or integrate with Google Maps Platform based on user location.
- 5 API Management:** Build, manage, and secure API endpoints with tools such as Cloud Functions, Cloud Run, API Gateway, Apigee, etc.
- 6 Security:** Infobot leverages all the security and data residency features from Dialogflow, like: [Access Control](#), [Security Settings](#), [VPC Service Controls](#), [mutual TLS authentication](#), [Regionalization](#), [Custom CA certificates](#) and [Access Transparency](#).
- 7 Logging/Monitoring:** Use [Dialogflow CX](#) monitoring and logging capabilities to monitor Infobot's conversation history and the analytics tool for Infobot's statistics.

### User Interaction Diagram Medical Search <sup>[HCLS]</sup>

This diagram shows the user interaction flow between components in the reference architecture configuring Gen AI App Builder platform for medical information search.

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### User Interaction Flow

- 1** User interacts with Search widget on website to submit a query.
- 2** The user query from Search widget is sent to the Enterprise Search service. Enterprise search does semantic search on the corpus E.g. contract documents. A key feature of Enterprise Search include semantic understanding of search queries, which means that it can understand the meaning of a query and return results that are more relevant to the user's intent.
- 3** Enterprise Search responds back to the user query with top  $n$  search results, summarizes the result and includes citations (references) to the documents from where information was retrieved with title, a snippet, and a URL.
- 4** The response from Enterprise Search to the user query is sent to the Search widget and to the user on their device.