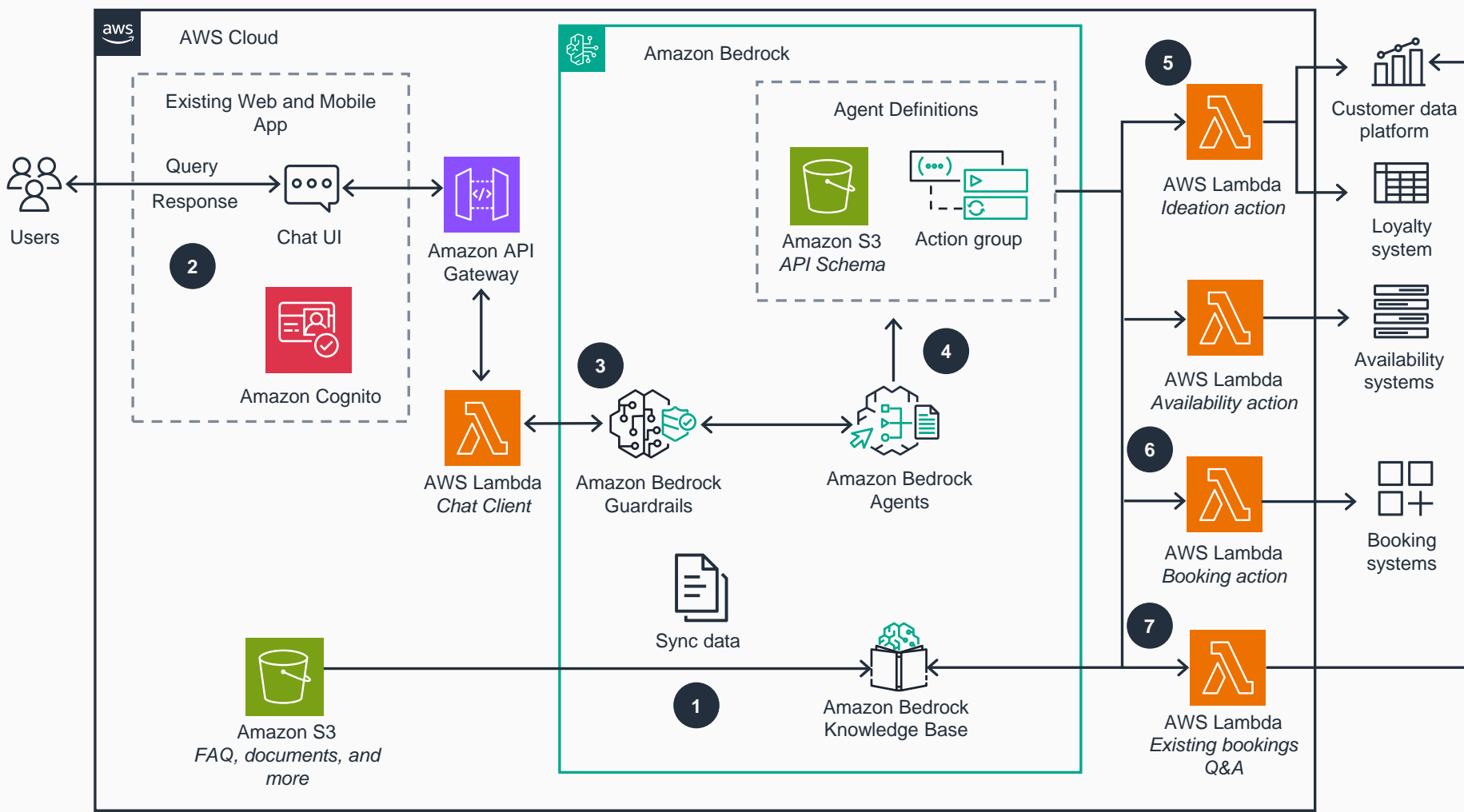


# Guidance for Building Travel Assistants Using Amazon Bedrock Agents

This architecture diagram shows how organizations in the T&H industry can build an agentic, personalized, and secure concierge to help drive direct sales.



- 1 Index FAQs and documents stored on **Amazon Simple Storage Service (Amazon S3)** using **Amazon Bedrock Knowledge Bases** to build vector knowledge stores for enterprise data.
- 2 Use **Amazon Cognito** to authenticate the guest or traveler. Initiate the conversation using the chat interface from your existing web and mobile app. **Amazon API Gateway** serves as the entry point for client requests, routing to an **AWS Lambda** function that invokes **Amazon Bedrock Agents**.
- 3 **Amazon Bedrock Guardrails** provides an external validation flow that allows you to check user inputs and large language model (LLM) responses against a set of topic denial rules, harmful content, text, or sensitive information before going back to the user. This helps protect your brand image and secure your applications.
- 4 **Amazon Bedrock Agents** takes into account the task sent by the user, alongside the conversation history, available actions, knowledge bases, and provided instructions in the prompt to create a plan to retrieve the necessary data to craft a response. The action group actions will be defined in a **Lambda** function that will load an API schema from **Amazon S3**.
- 5 The ideation action will use an identifier from the authenticated user to query a customer data and loyalty system and retrieve previous booking and interaction data, loyalty status, available perks and offers, and more. Based on this data and the user requirements, a customized travel destination and itinerary will be offered back to the user.
- 6 Once the user has decided on a destination and a date, the availability action will query (such as available flights and hotels) and present the options to the user. When ready to book, the booking action will connect to booking systems to complete the booking and offer a summary back to the user.
- 7 The existing bookings Q&A action retrieves the users existing bookings, and based on the question from the user, selects the appropriate metadata filters (such as airline or hotel) to query the knowledge base, confirming the response is based on the correct data.