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Powering the next era of agentic experiences



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Editor's note: As of May 19th, 2026, Maps Agentic UI Toolkit is now broadly available in Experimental. This geospatial visualization intelligence layer gives your AI agents a “visual voice,” turning unstructured text into interactive maps in real-time. Dive straight into [our documentation](#) to start building.

In addition, Grounding with Google Maps is now Generally Available within the Firebase AI Logic SDK. This integration empowers mobile and web developers to anchor AI-powered applications in real-world geospatial data across Android, iOS, Flutter, JavaScript, and Unity. [Read the full announcement](#) to learn how to build factual, location-aware experiences.

Today at Cloud Next we're excited to announce new and expanded capabilities to help you build differentiated AI experiences. To move beyond simple chat, AI agents require two foundational layers: a grounding "truth layer" to anchor their reasoning in the physical world, and a visual interface to communicate that information through an intuitive, interactive experience.

Our new portfolio provides this dedicated geospatial intelligence layer. First, we are expanding our grounding foundations to anchor your AI in factual data and spatial reasoning. Second, we are introducing visualization tools that help your agent turn complex AI text into interactive maps and location-specific imagery.

Maps Grounding Lite: Now Generally Available

[Maps Grounding Lite](#) is a portable and powerful way to bring the power of Google Maps to LLMs via the Model Context Protocol (MCP).

This integration is designed for rapid prototyping, allowing you to instantly anchor AI agents with trusted data on 300M+ places from Google Maps. By connecting your models to fresh, factual information from Google Maps, you can build conversational experiences that provide helpful location information—from places information, weather forecasts, and routing essentials like distance and travel time.

For example, a real estate startup can use Grounding Lite to help an AI assistant respond to specific user queries such as, "What are some kid friendly restaurants and parks near this home?" or "What would my commute to downtown look like from this home listing?" directly within the chat interface. Key benefits of Grounding Lite include:

- **Flexible Interoperability with LLMs:** Rapidly prototype and deploy AI agents using a standardized MCP integration.
- **Factual, up-to-date responses:** Reduce hallucinations and stale references by grounding your model's responses in live, real-world data.
- **Frictionless scalability:** Take advantage of a frictionless, low-cost path to bring Google Maps intelligence to your preferred AI prototype or agent. Compare options to [find the right maps grounding solution for your needs](#).
- **Seamless onboarding:** Accelerate your agentic workflows with [Maps Demo Key](#) support for Grounding Lite—start building instantly without requiring a credit card.



A conversational experience with Maps Grounding Lite via MCP

Grounding with Google Maps: Optimize routes and directions

Grounding with Google Maps, which [launched last September](#), now extends beyond location data to include routing capabilities in Private Preview. This allows AI agents to provide real-time travel estimates and reason about the complex spatial relationships between locations. By grounding responses in the Google Maps routing engine, your application can deliver performance-optimized directions and "live" travel times that account for current road conditions. These capabilities are available in [Gemini Enterprise Agent Platform](#), the [Gemini API](#), and [Google AI Studio](#).

These capabilities enable frictionless planning across industries, such as helping travelers find dinner spots on the way to their hotel, assisting real estate agents in routing multiple property viewings, or suggesting the shortest refueling detour for drivers. Grounding helps the model respond intelligently to these prompts, providing the accuracy and fresh information users expect from Google Maps. Key benefits of these new routing features include:

- **Multi-modal routing:** Support for travel calculations across driving, walking, bicycling, transit, and two-wheeled motorized vehicles.
- **Intermediate waypoints:** Journey planning that supports up to 13 stops between an origin and destination.
- **Real-time traffic:** Grounded responses account for live traffic conditions to provide up to date durations rather than static averages.
- **Search along route (SAR):** Enable agents to identify and recommend points of interest—such as "find gas stations on the way to work"—while navigating a specific path.



Routing and search along route (SAR) with Grounding with Google Maps in Agent Platform
+ contextual visualizations

Trusted by global innovators: Grounding in action

Grounding with Google Maps is being adopted across a diverse range of industries to solve complex real-world reasoning challenges. Here is how some of our partners are using these new capabilities to turn their AI agents into local experts:

Real Estate: Realtor.com is introducing RealAssist™, a conversational tool that helps buyers experience the vibe of a neighborhood before they move. By analyzing local amenities and

commute times across different parts of the day, users can understand how a home fits their specific lifestyle.

“By integrating Grounding with Google Maps into RealAssist, we’ve woven geospatial context directly into the conversational flow so users don’t just look at listings—they understand exactly how a home fits into the geography of their lives. — Dave Herman, SVP of Product and AI innovation, Realtor.com”

DAVE HERMAN

SVP of Product and AI innovation, Realtor.com

Travel and Hospitality: [TUI is using Grounding with Google Maps](#) to turn static itineraries into seamless, personalized experiences. Their AI assistant brings together real-time local insights and recommendations to give customers an intuitive way to explore what to do on holiday.

“TUI’s Tours take customers to new destinations every few days, with time to explore in each. Using Grounding with Google Maps, our AI assistant turns that time into personalized, real-time recommendations, transforming static itineraries into seamless experiences.” — Mircea Tudose, MD Expansion Business, TUI Tours”

MIRCEA TUDOSE

MD Expansion Business, TUI Tours

Large-scale Event Management: Neurun works with organizations like the FIFA World Cup 26™ New York New Jersey Host Committee and the Boston Athletic Association to provide a digital concierge for massive events. The AI-driven experiences help participants, spectators, and locals navigate complex city-wide events by providing a single, grounded

source of truth for events at scale. You can try the [Boston Marathon](#) experience for yourself.

“From a marathon course to multi-city global sporting events — the throughline is the same: large-scale events are hard to navigate. People have questions. And when those questions get answered well, grounded in real-world data, the experience of being there changes entirely.”

CADE NETSCHER, FOUNDER AND CEO, NEURUN

Founder and CEO, Neurun

Visualizing the agentic experience: Turn AI text into interactive maps

The Maps Agentic UI Toolkit serves as the dedicated geospatial visualization intelligence layer that gives your AI agents a “visual voice.” To enable these experiences, we have provided developers with declarative A2UI components and a comprehensive set of system instructions. This teaches the AI exactly how to recognize when a user query requires a spatial answer, such as nearby coffee shops or a walking route, and automatically translates that unstructured text into dynamic, interactive Google Maps experiences in real-time. By providing a dedicated presentation layer, the toolkit helps users discover and decide without leaving the AI environment, offering rich visual context such as interactive inline maps, visual route paths, and detailed place cards.

- **Agent-ready UI:** Embed modular, interactive building blocks—dynamic route previews, and other visual context—directly into your agentic applications. This eliminates the cognitive overload of a “wall of text” and keeps users engaged inside your app.
- **Low-code orchestration:** Avoid the hassle of writing brittle glue code or dealing with probabilistic AI hallucinations. The toolkit provides system instructions that help your agent render the right map at the right time.
- **Model agnostic flexibility:** The toolkit acts as a stateless, dedicated presentation layer for geospatial data, working seamlessly to translate outputs from Gemini models or your preferred compliant LLM.

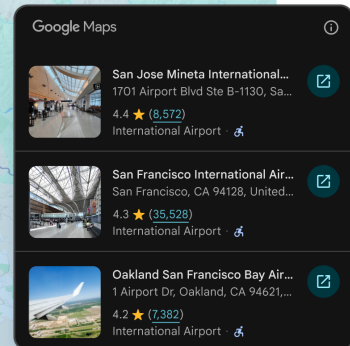
What is the closest and most convenient airport?

The closest and most convenient airport for your stay at Bayview Suites is **San Jose Mineta International Airport (SJC)**.

Here are the primary options based on proximity to 400 Bay View Drive:

- **San Jose Mineta International (SJC):** ~10 miles away. This is the nearest commercial airport and typically the fastest commute to the North Mountain View/Moffett Field area.
- **San Francisco International (SFO):** ~25 miles away. While further than SJC, it offers a wider variety of international and long-haul domestic flights. The commute can vary significantly depending on traffic on US-101.
- **Oakland International (OAK):** ~30 miles away. This is a viable third option, though it requires crossing the Dumbarton or San Mateo Bridge, which can be prone to heavy traffic during peak hours.

For the most efficient travel to your lodging, SJC is generally recommended due to its proximity.



Maps Agentic UI Toolkit: Powering interactive, structured place data directly within the chat experience.

 Expand

Maps Imagery Grounding: Ground generative media in physical reality

What if your generative AI could create content that's not only imaginative but also rooted in the visual truth of the real world? We're pushing the boundaries of AI creativity with our Maps Imagery Grounding now available globally in Private Preview, starting with U.S. locations from Street View. This innovation combines the power of Google's generative image models with real-world image data from Google Maps.



Gemini 3.1 Flash-generated surreal NYC ad concept, animated with Veo using Maps Imagery Grounding. (Screen images simulated and sequences shortened. Results for illustrative purposes and may vary.)

 Expand

Maps Imagery Grounding in Gemini Enterprise Agent Platform provides a verified foundation to ensure your AI-generated content is anchored in the real-world context of locations using Street View. Create high-fidelity, immersive stories on a clean canvas, allowing you to seamlessly insert your own subjects while reflecting actual architectural and geographic context, all without having to travel to shoot on location or employ complicated visual effects workflows. Key benefits of Maps Imagery Grounding include:

- **Unique scale and perspectives:** Unlock unique vantage points spanning iconic landmarks to remote locations, enabling camera angles that are physically or logistically impossible to capture otherwise.
- **Clean canvas innovation:** Build your narrative on a distraction-free canvas. Seamlessly insert new subjects to tell your brand's story, show a commercial property's potential, or a destination's true character.
- **Creative velocity at scale:** Transform production timelines from months to days. Programmatically generate high-fidelity, location-accurate assets without the cost or

complexity of on-site shoots.

Ready to get started?

[Visit our website](#) to learn more about our agentic and grounding products. You can also explore the [Maps Day Planner Agent codelab](#) to understand how to build a similar experience.

Interested in using our new Private Preview features?

- [Apply for access](#) to Grounding with Google Maps Routing and Search along-route (SAR) features
- [Apply for access](#) to the Maps Agentic UI Toolkit
- [Apply for access](#) to the Maps Imagery Grounding in Gemini Enterprise Agent Platform

AI

Visualize geospatial data

Get going with Google Maps Platform

Get started

Contact sales

*Free usage refers to monthly calls available at no cost. Essentials Map Tiles APIs provide up to 100,000 calls at no cost per SKU per month.

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