Google Cloud

Webinar | AMER & EMEA

Community

TechTalks

April 16, 2026

Powering Retail Agents with ADK, UCP & Apigee X

https://goo.gle/Recordings

Apigee

Speakers



Maria Liampoti

Customer Engineer



Tyler Ayers

Apigee Architect

Agenda

- Intro
- Agent Protcols (A2A, MCP)
- Universal Commerce Protocol (UCP)
- Demo
- Discussion / Q&A

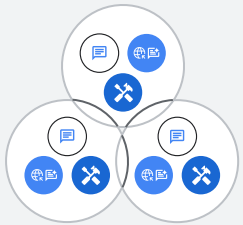
AI agents are the next frontier

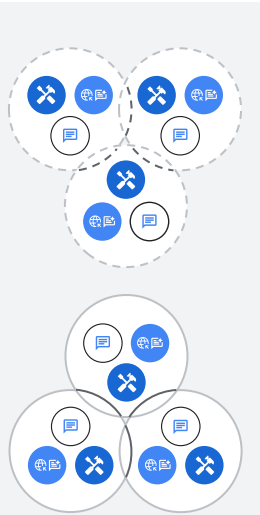


Proprietary + Confidential

AI agents: The AI Evolution

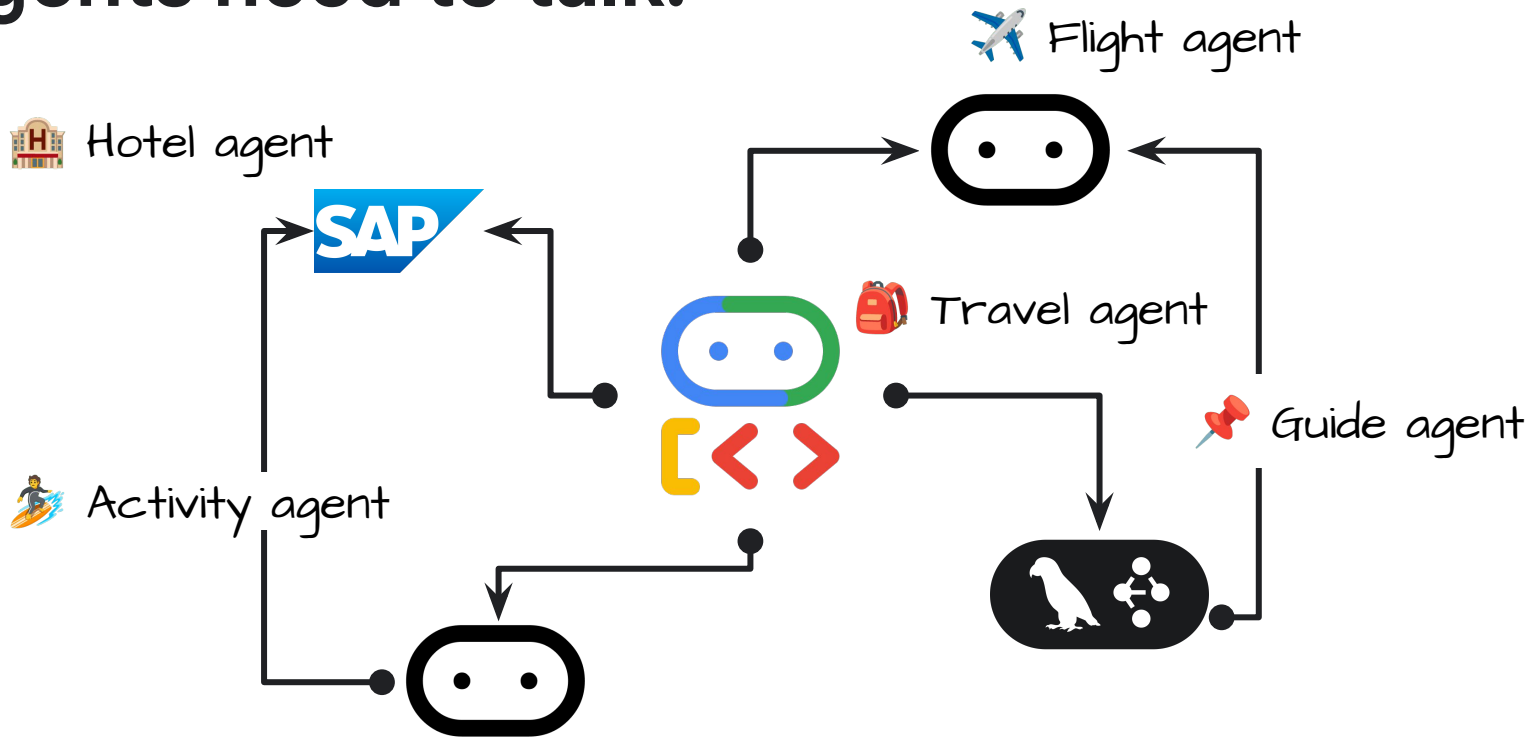
LLM	LLM + RAG	LLM + RAG + Tools	LLM + RAG + Tools		
LLM + prompt	LLM + retrieval	LLM + retrieval + actions	+ Many tools and reasoning loop	Multi agent systems	Remote multi-agent systems





What is next?

Agents need to talk!



Google Cloud

A2A capabilities



Discovery

Agents must advertise their capabilities so clients know when and how to utilize them for specific tasks.



Negotiation

Clients and agents need to agree on communication methods like text, forms, iframe, or audio/video to ensure proper user interaction.



Task and State Management

Clients and agents need mechanisms to communicate task status, changes, and dependencies throughout task execution.



Collaboration

Clients and agents must support dynamic interaction, enabling agents to request clarifications, information, or sub-actions from client, other agents, or users.

Google Cloud

A2A ❤️ MCP

Complementary, Not Competing



Model Context Protocol (MCP)

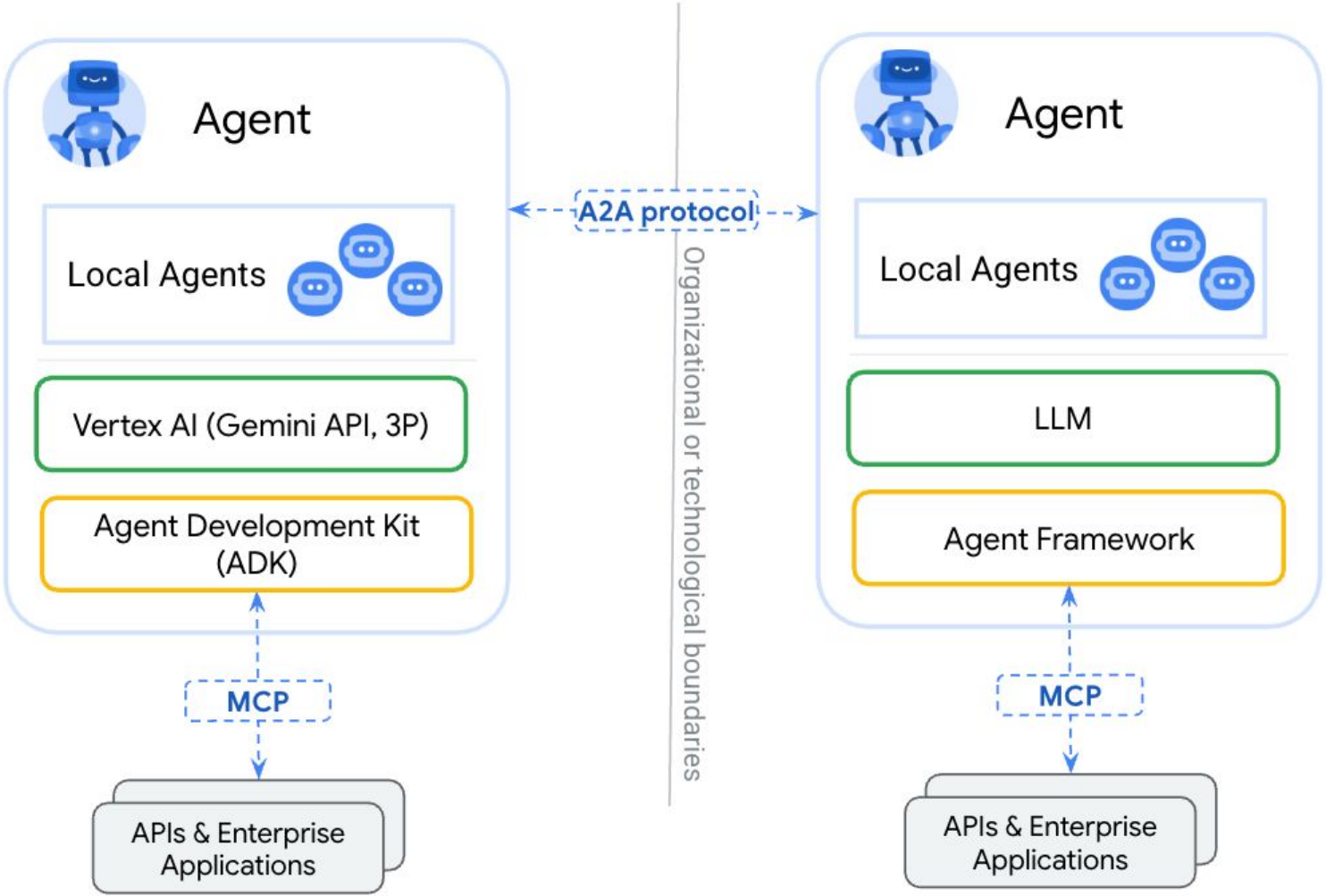
- Connects agents to **tools, APIs, and resources**.
- Think: *How an agent uses its capabilities (function calling)*.
- Example: Agent uses MCP to call a weather API tool.



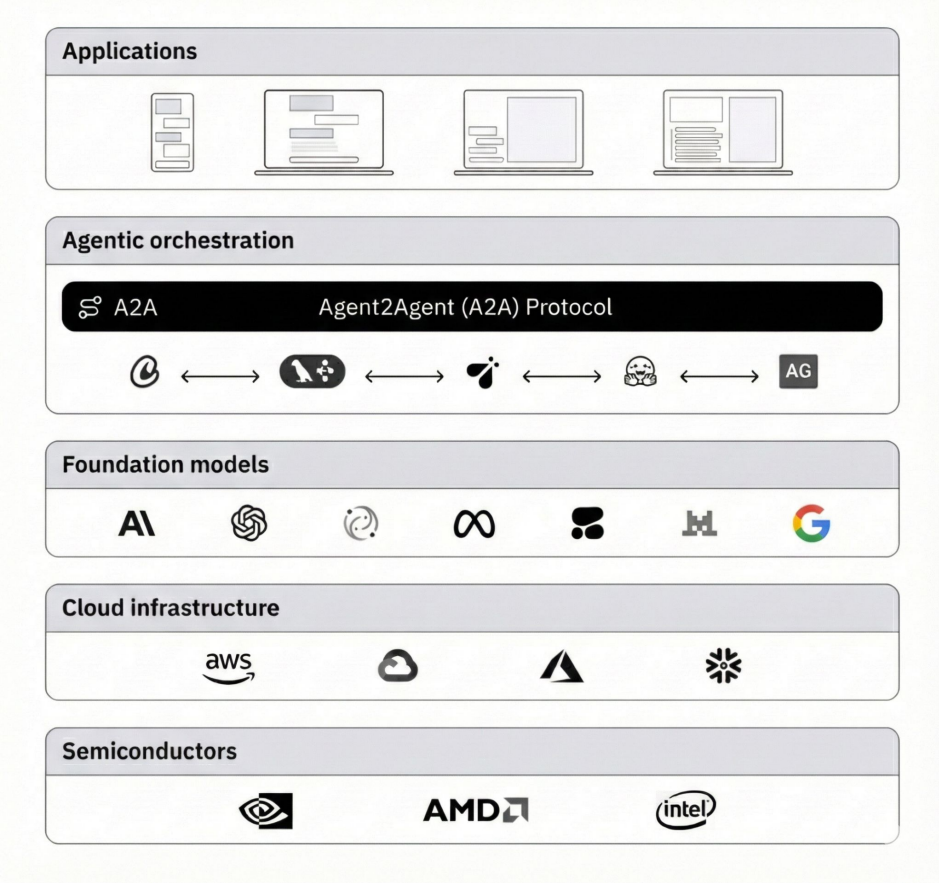
Agent2Agent Protocol (A2A)

- Facilitates dynamic communication **between different agents** as peers.
- Think: *How agents collaborate, delegate, and manage shared tasks*.
- Example: A Travel Agent (A2A) asks a Flight Booking Agent (A2A) to find flights.

Google Cloud

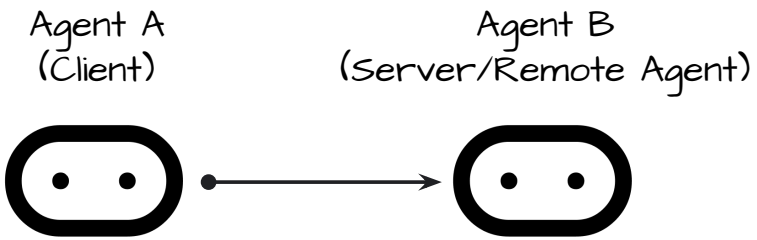

Agent
Local Agents
Vertex AI (Gemini API, 3P)
Agent Development Kit (ADK)
MCP
APIs & Enterprise Applications
A2A protocol
Organizational or technological boundaries
Agent
Local Agents
LLM
Agent Framework
MCP
APIs & Enterprise Applications

Where A2A Fits in the Tech Stack



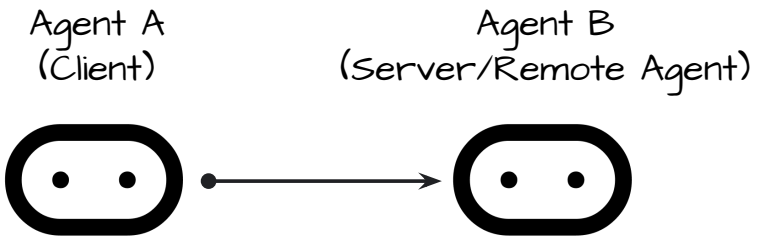
Google Cloud

Building a simple agent system



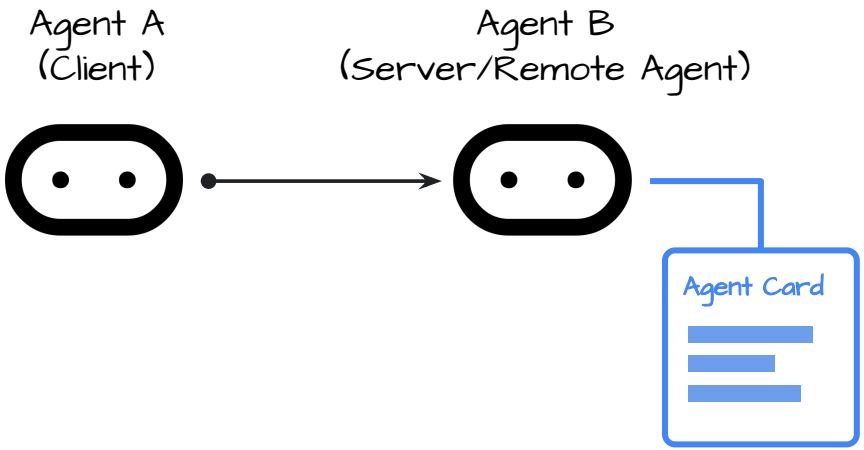
Step 1: Agent Discovery

Who are you & what can you do?



Step 1: Agent Discovery

The agent card



`/.well-known/agent-card.json`

Google Cloud

Agent Card
Example

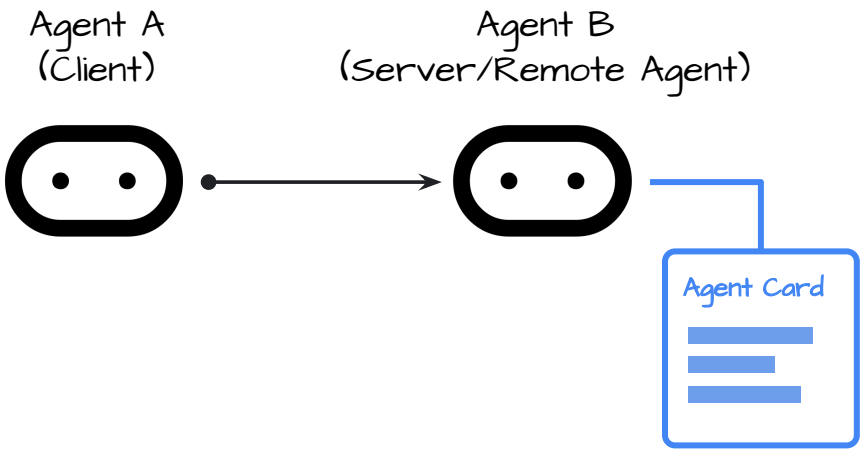
```
agent_card = AgentCard(
    name='Currency Agent',
    description='Helps with exchange rates for currencies',
    url=f'http://{host}:{port}/', # e.g., http://localhost:10000/
    version='1.0.0',
    default_input_modes=CurrencyAgent.SUPPORTED_CONTENT_TYPES, # Usually ['text/plain']
    default_output_modes=CurrencyAgent.SUPPORTED_CONTENT_TYPES,
    skills=[skill],
)

# ... (Server setup using this agent_card) ...
```

Google Cloud

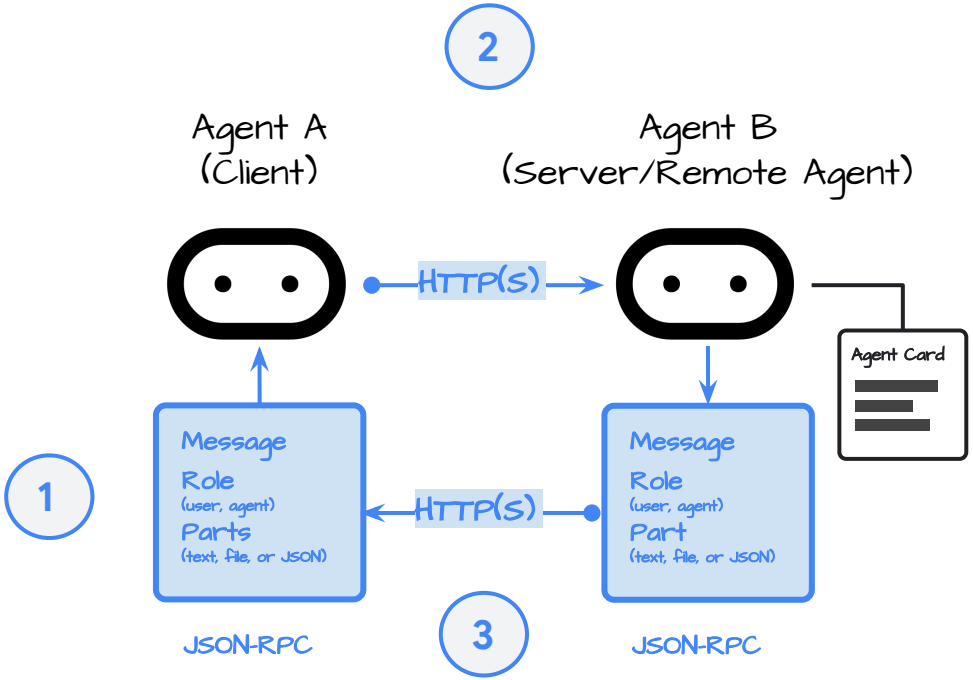
Step 2: Basic Interaction

How do we actually talk?



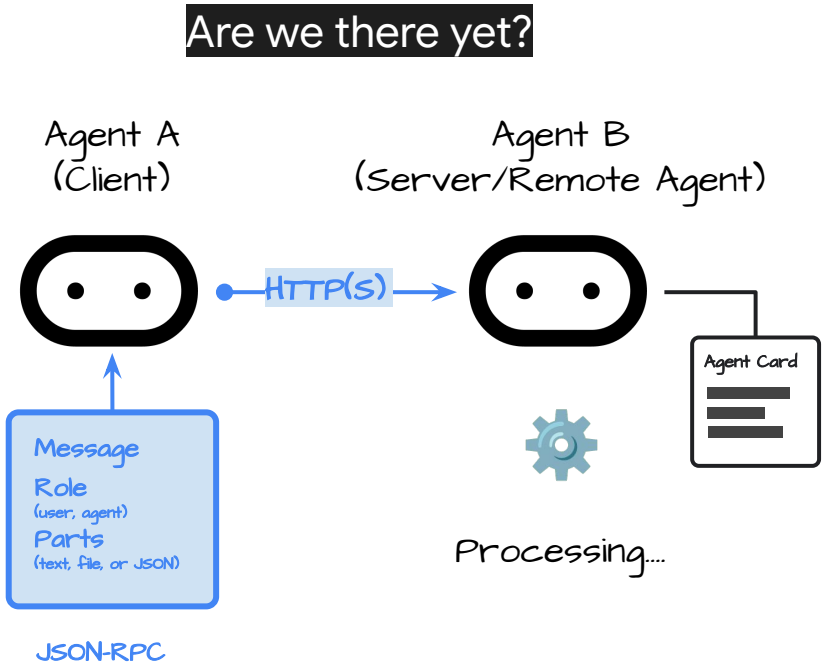
Step 2: Basic Interaction

Synchronous



Google Cloud

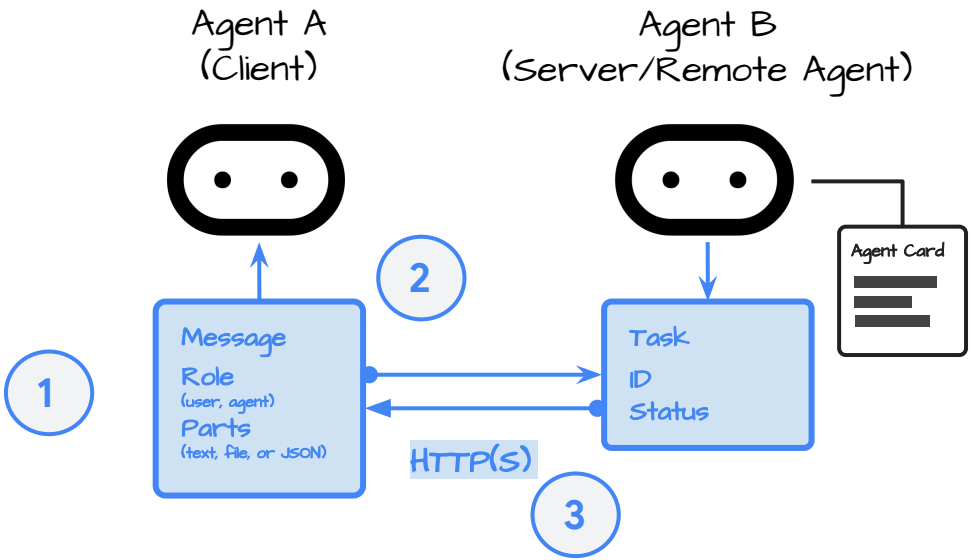
Step 3: Handling Real Work



Google Cloud

Step 3: Handling Real Work

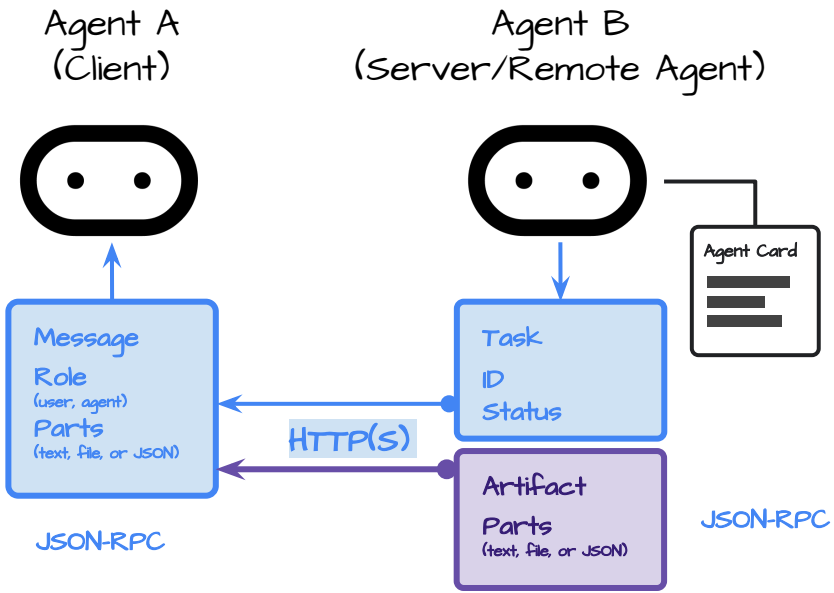
Asynchronous



Google Cloud

Step 3: Handling Real Work

Task Lifecycle & Polling

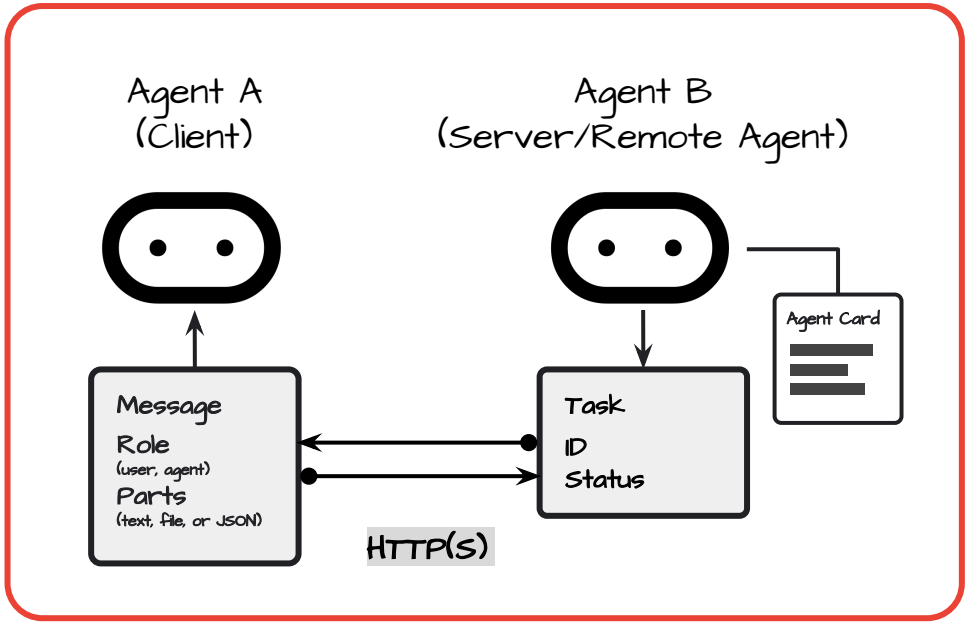


Google Cloud

Task Lifecycle & Polling

Challenge

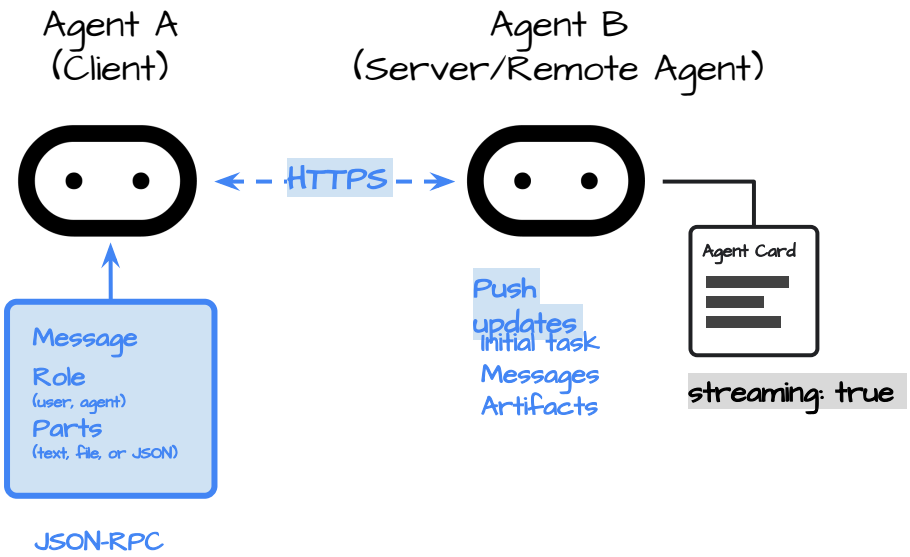
❌ Polling is inefficient!



Google Cloud

Real-time Updates

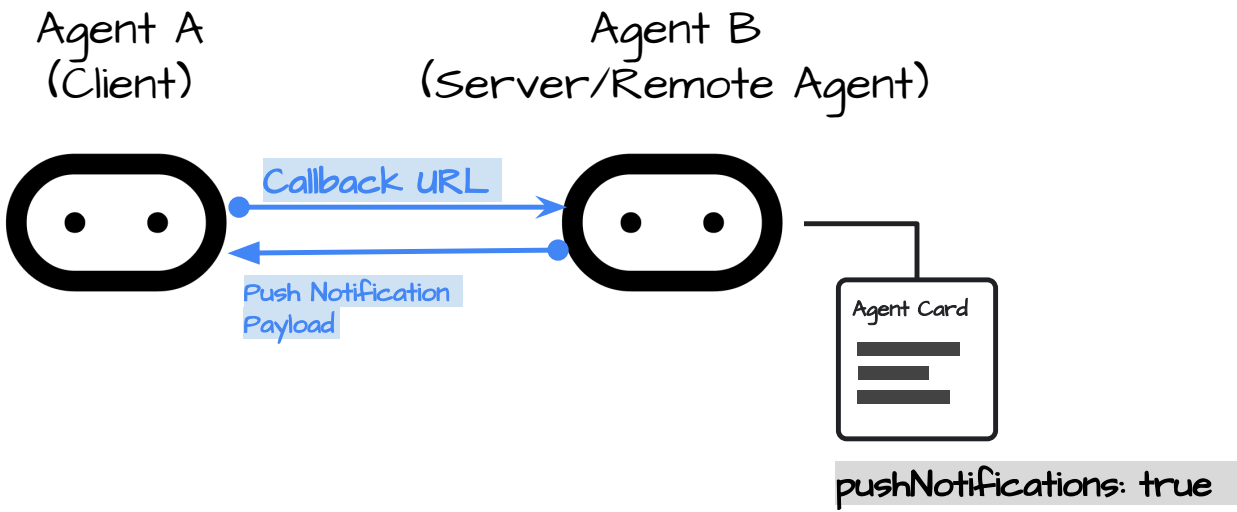
Streaming with SSE



Google Cloud

Push Notifications

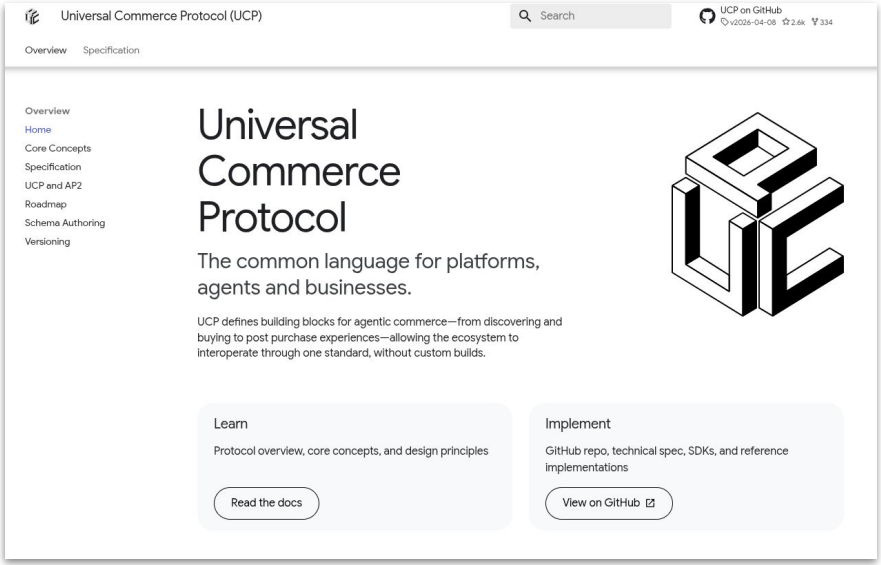
Webhooks & Callbacks



Google Cloud

Challenge: How can the agents connect to retail, payment & e-commerce systems?

UCP formalizes and standardizes the process & execution of commerce in the agentic era with modularity and security in mind.



ucp.dev



Universal Commerce Protocol (UCP)

REST API



A2A

Open protocol designed specifically to handle the dynamic and long-running nature of agent collaboration



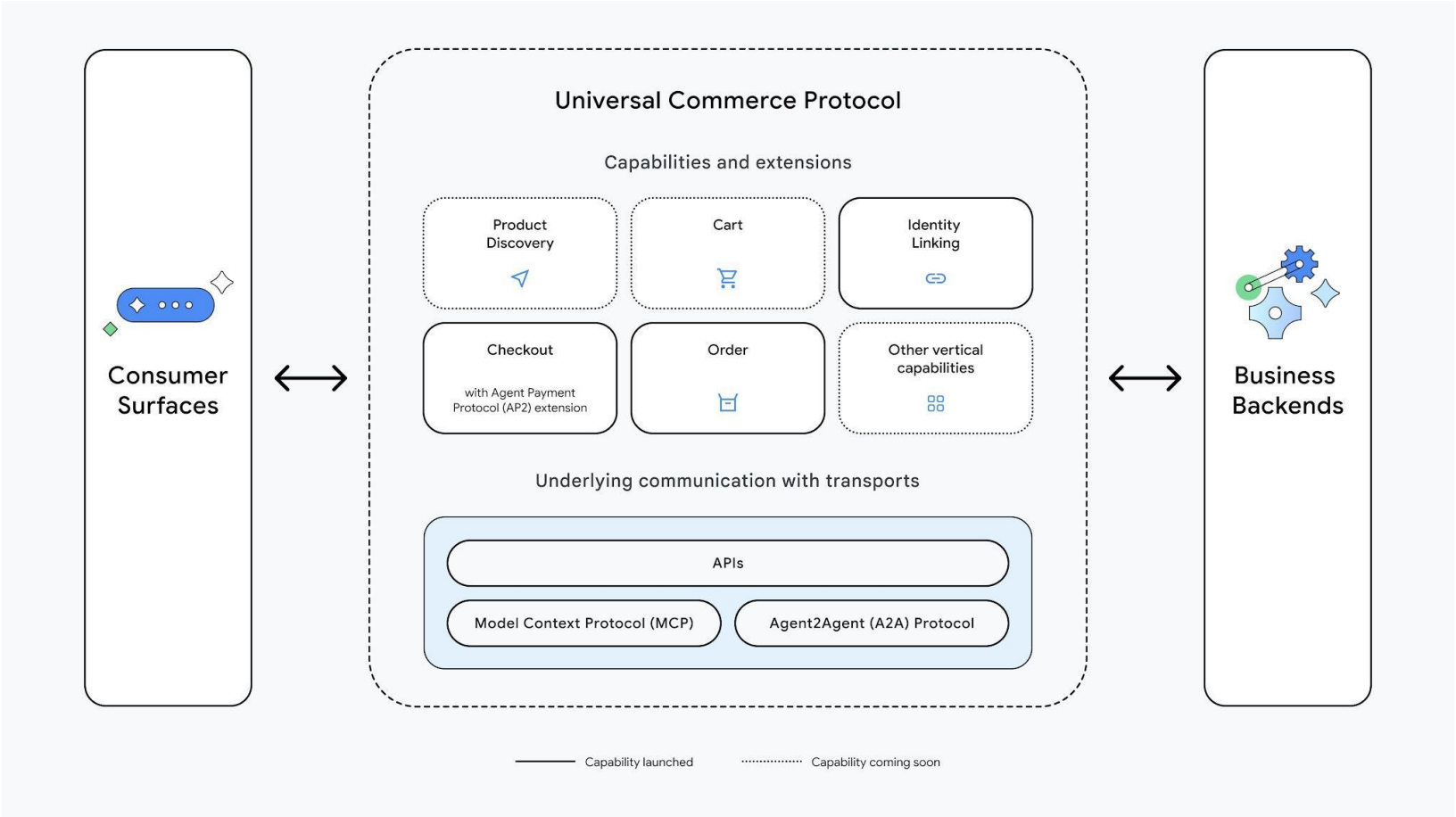
MCP

Standardizes AI model communication with various databases and tools, simplifying data integration



AP2

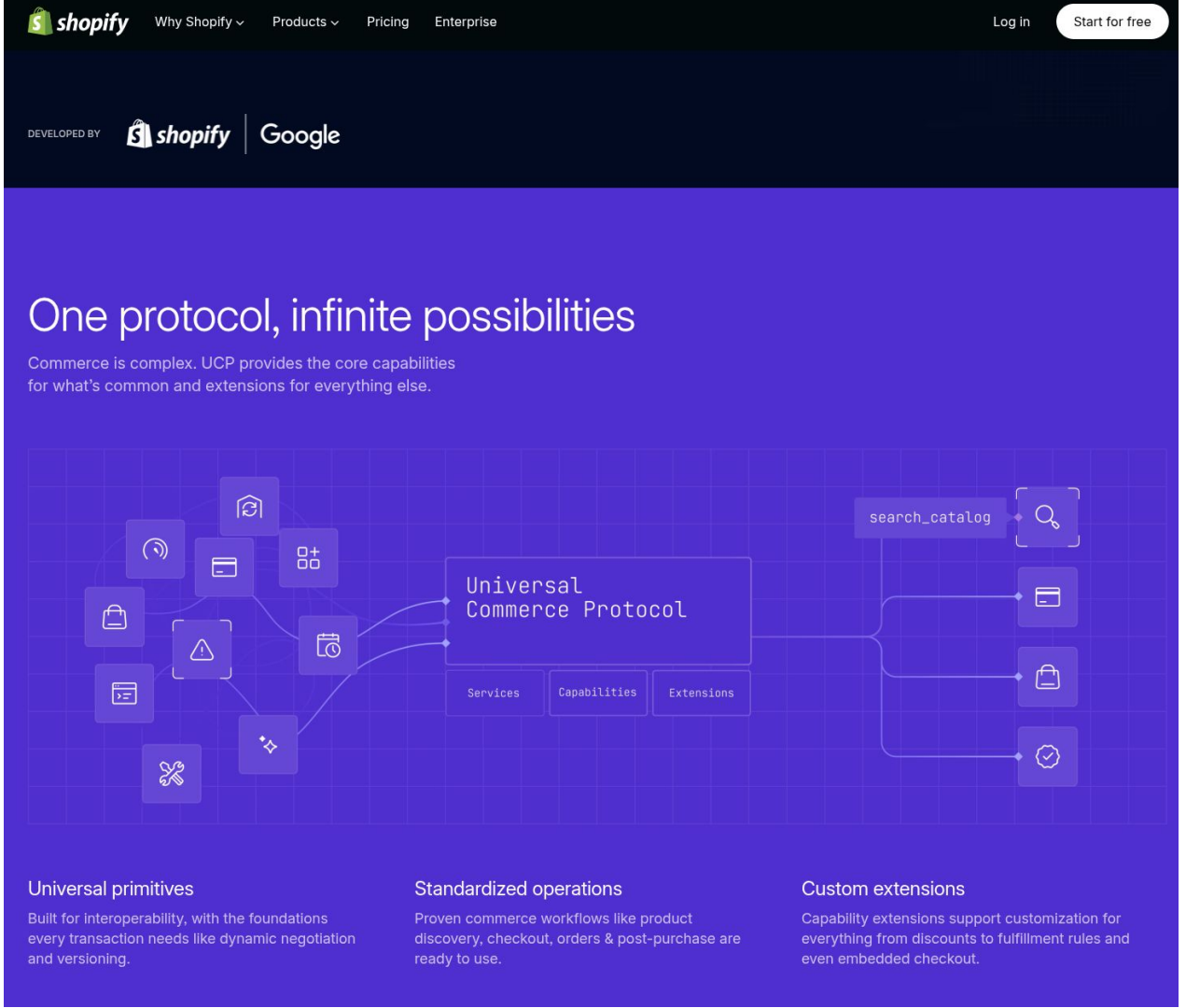
Open protocol developed to securely initiate and transact agent-led payments across platforms



Source: ucp.dev

Shopify is one of the development partners of UCP, with great documentation & integration.

https://www.shopify.com/ucp

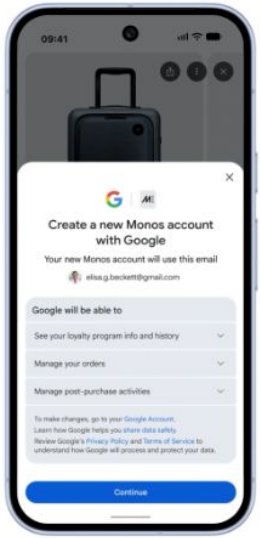


Google UCP Guide Home Implementation FAQ Search / English

Getting started with Universal Commerce Protocol on Google

The Universal Commerce Protocol (UCP) is an open standard designed for the future of commerce, empowering you to turn AI interactions into instant sales. Adopt UCP to enable agentic actions on Google AI Mode and Gemini, starting with direct buying.

Read the documentation Join the waitlist



Sequences shortened and results for illustrative purposes throughout. Screen images simulated.

Google supports UCP in early access for direct product search & checkout in Google AI Mode & Gemini.

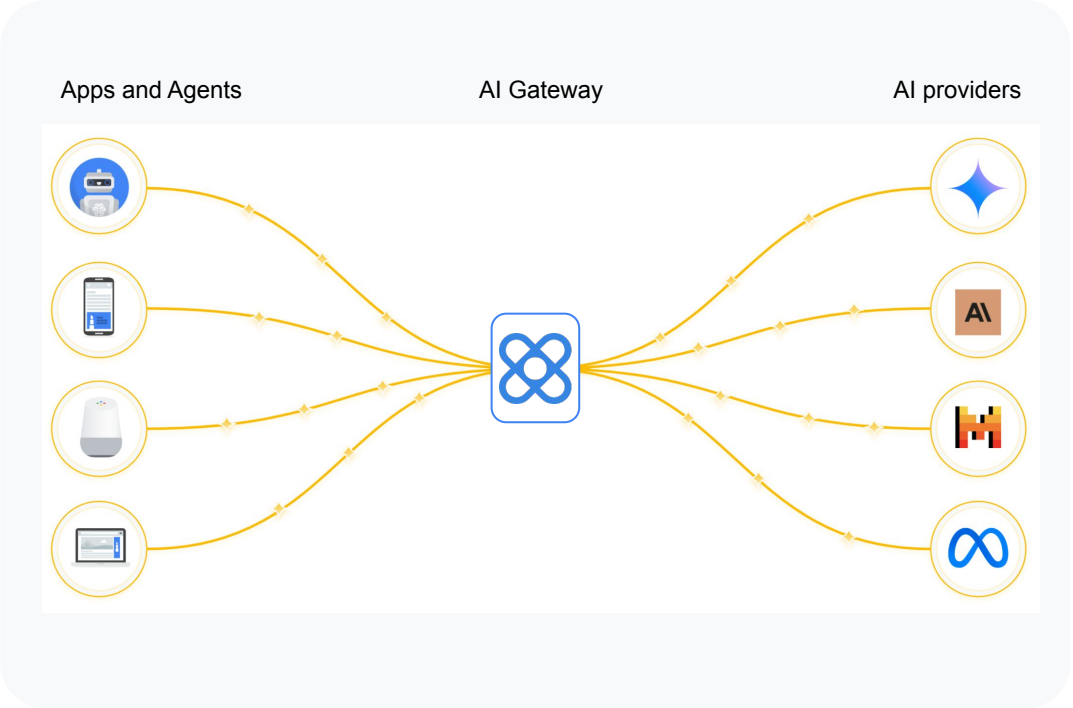
https://developers.google.com/merchant/ucp

Proprietary & Confidential

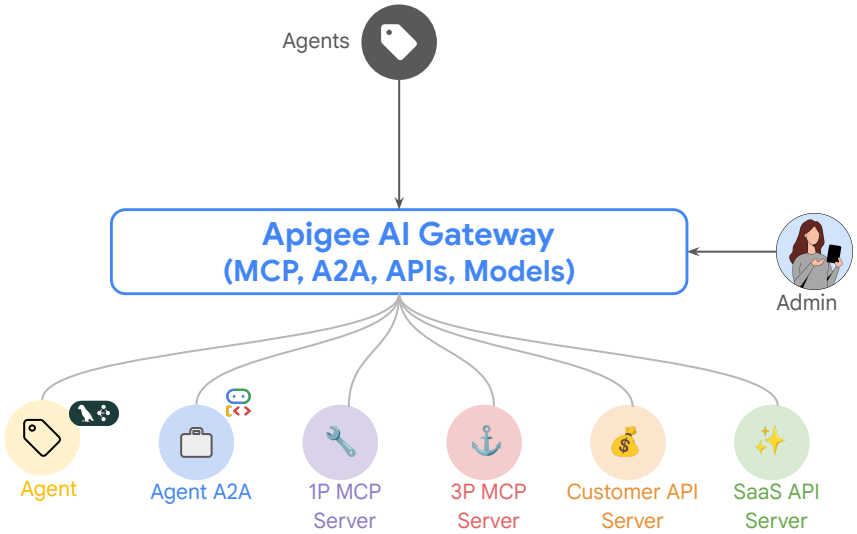
How can we manage the AI communication?

Apigee

AI Gateway supports AI & agentic protocols, at scale.



Single pane of glass for agentic communication: Apigee AI Gateway

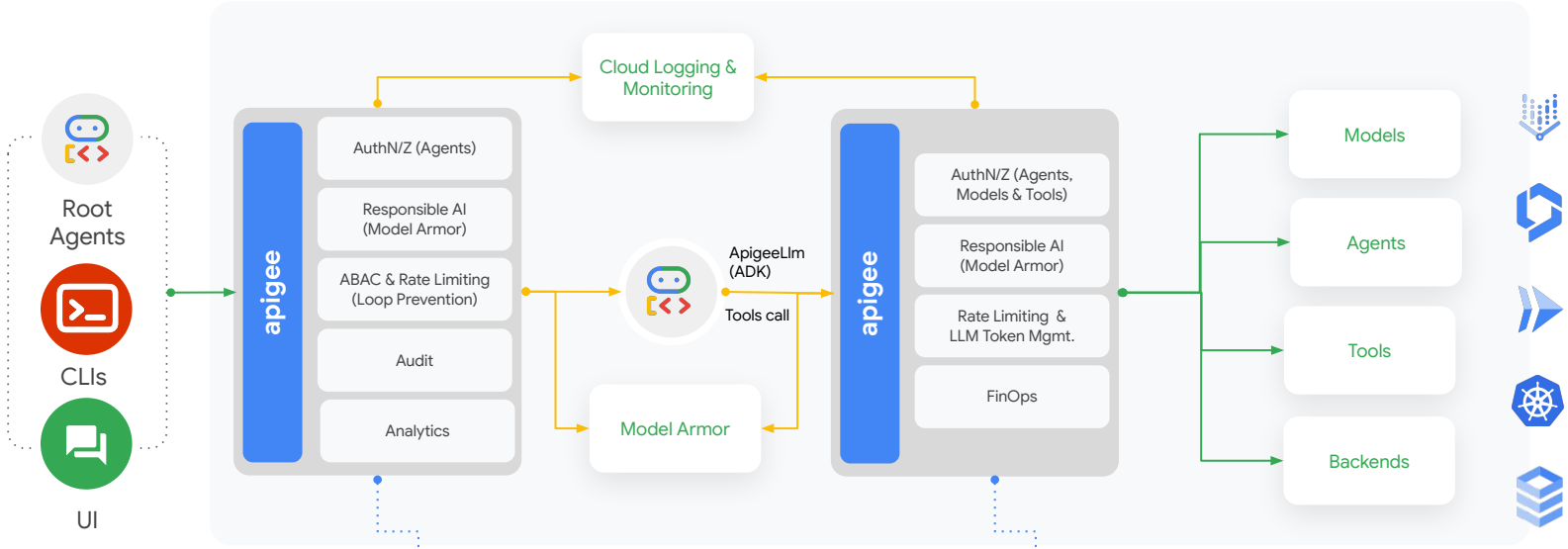


1. Comprehensive AI security & safety for all A2A and MCP interactions

2. Optimized serving performance and resource management.

3. Simplified and enhanced developer + platform experience. AI Features GA, Native MCP & A2A services.

Sample Apigee agentic architecture



Securing Agent-to-Agent & LLM Interactions

Enforce AuthN/Z, RBAC, and ABAC for trusted agent communication.

Prevent recursive loops and infinite execution cycles.

Blocks unsafe requests at the entry point (Model Armor)

Filter traffic before it hits downstream tools.

Securing Tool Interactions

Enforce AuthN/Z, RBAC, and ABAC for trusted tool communication.

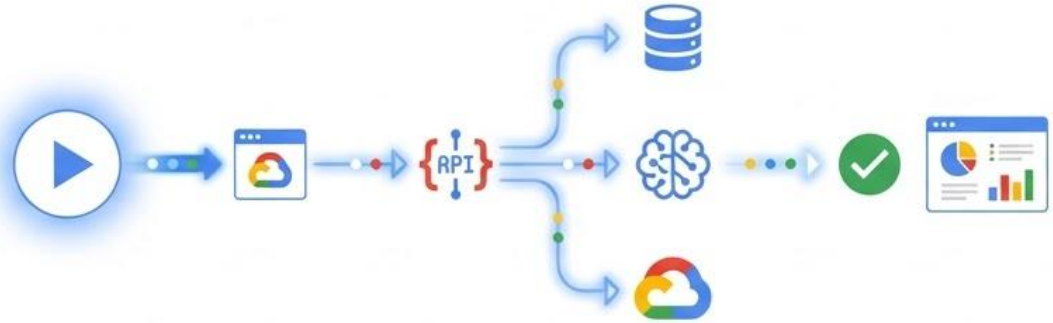
Enforce usage quotas and subscriptions

Blocks unsafe requests at the entry point (Model Armor)

Apply transformations and integrations to backend data & services

Proprietary + Confidential

Demo



Credential Provider &
Payment Service Provider



Merchant's
Backends &
services

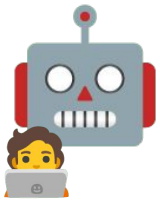








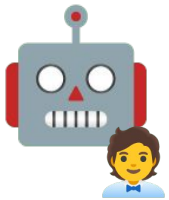
Shopper



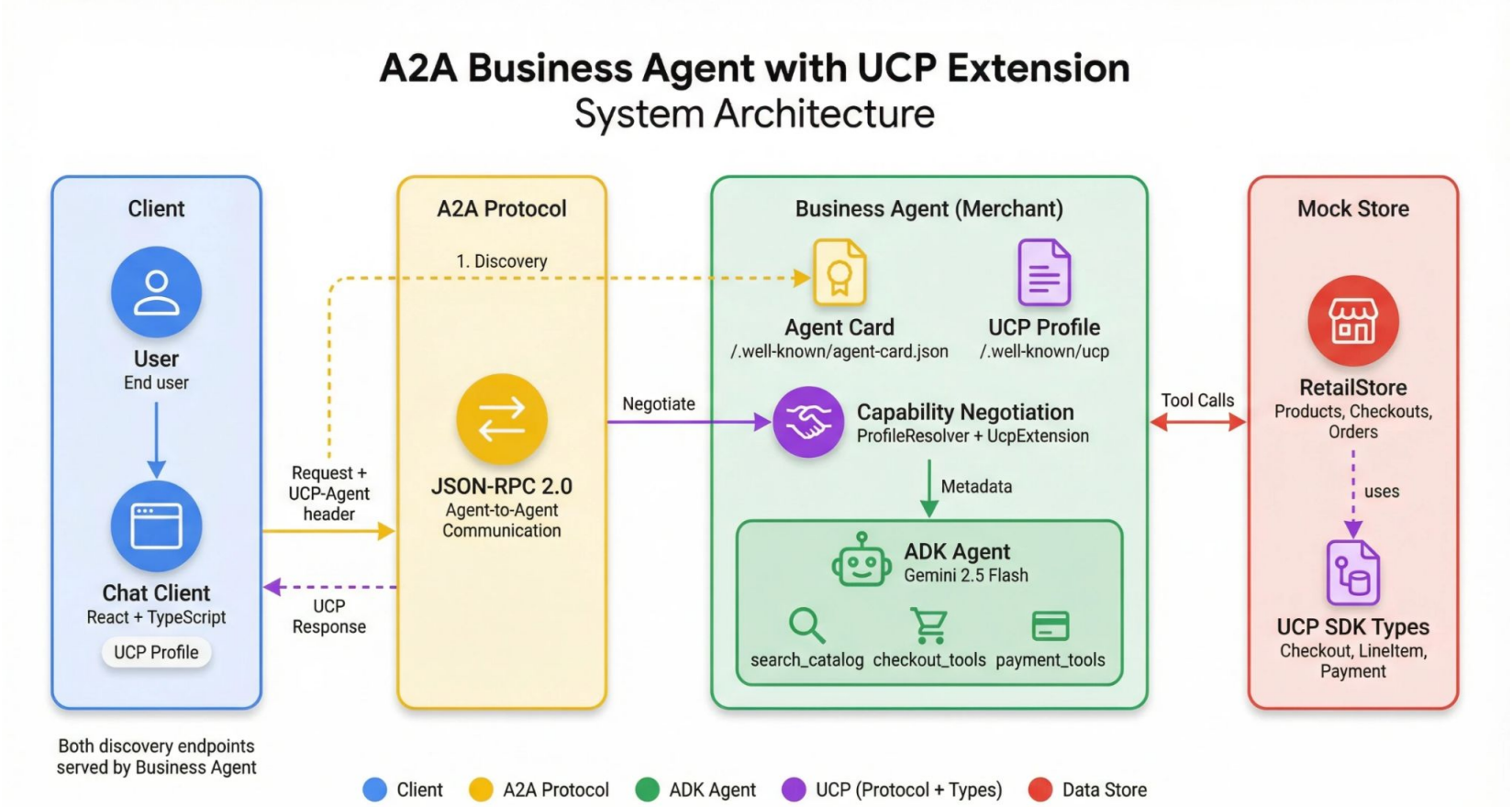
Platform
(Application/Agent)

Identifies as
"UCP-Agent"

Discovery via
`/.well-known/ucp`



UCP Merchant Server
-or-
Retail Agent
implementing UCP



Source: github.com/Universal-Commerce-Protocol/samples

Links

- Apigee demo source code: https://github.com/tyayers/apigee-ucp-demo
- UCP ADK samples repository: https://github.com/Universal-Commerce-Protocol/samples
- UCP docs: https://ucp.dev/
- Shopify UCP docs: https://www.shopify.com/ucp
- Google Merchant UCP docs: https://developers.google.com/merchant/ucp

Proprietary & Confidential

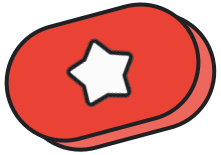


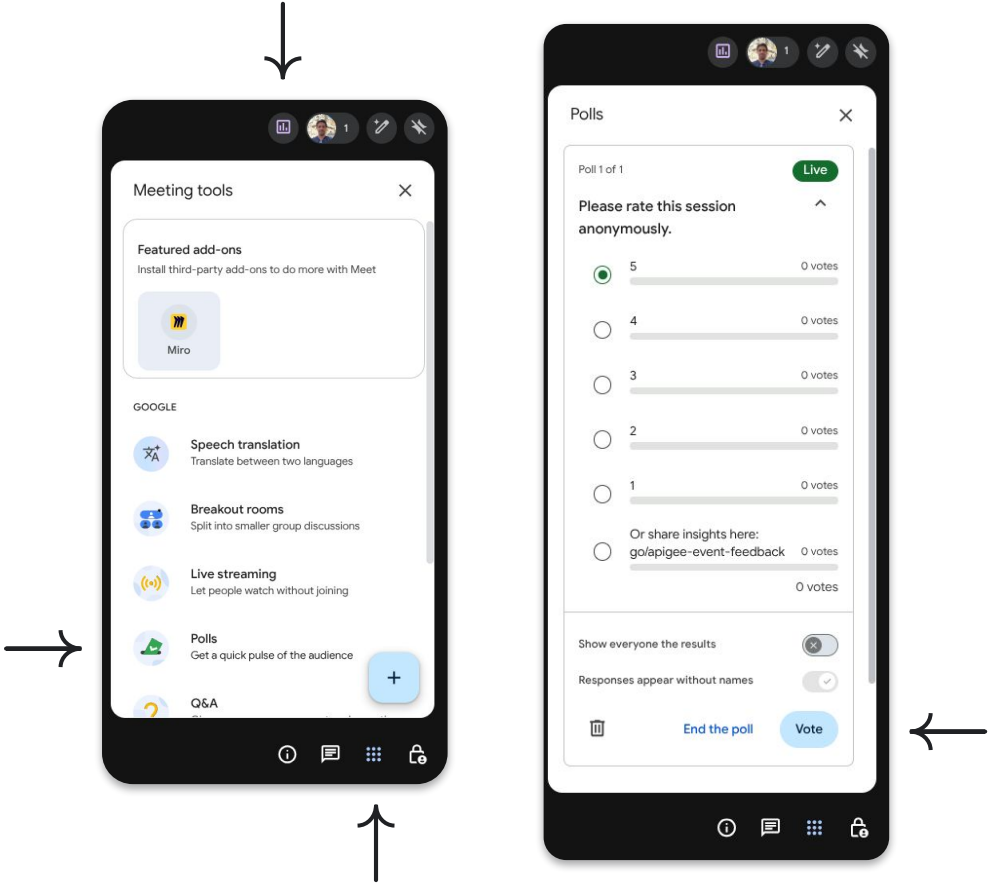
Q&A

Please share your feedback!

Help us make our sessions even better!

Please provide your **anonymous feedback** by rating this session.





Catch up!

New Community Content

- Apigee as a Gateway for Google Cloud Pub/Sub
- Upgrading Apigee OPDK 4.51 to 4.53 with OS Modernization

Upcoming Events

- May 7, 2026 w/Christophe Lalevée
- May 21, 2026 w/Mathilde Leibenguth
- May 28, 2026 w/Nicola Cardace

Google Cloud Next 26

Looking for Apigee?

Meet our experts at the Security Hub

April 22-24
Las Vegas

Google Cloud Next 26

Apigee Breakout Sessions

Build Production-Ready Agents on Google Cloud
April 22 | 12:30 PM (*BRK2-091*)

Protect Against the OWASP Top 10 Application Risks
April 23 | 2:45 PM (*BRK3-042*)

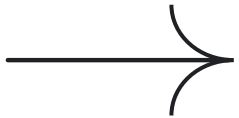
Bridge Your APIs to AI Agents with MCP and Apigee
April 23 | 5:15 PM (*BRK2-100*)

Orchestrate Tools and Agents with Registries and ADK
April 24 | 1:45 PM (*BRK2-096*)

Google Cloud

Community

TechTalks



Thank You

Apigee

Application Integration