

The State and Future of A2A





Kaz Sato

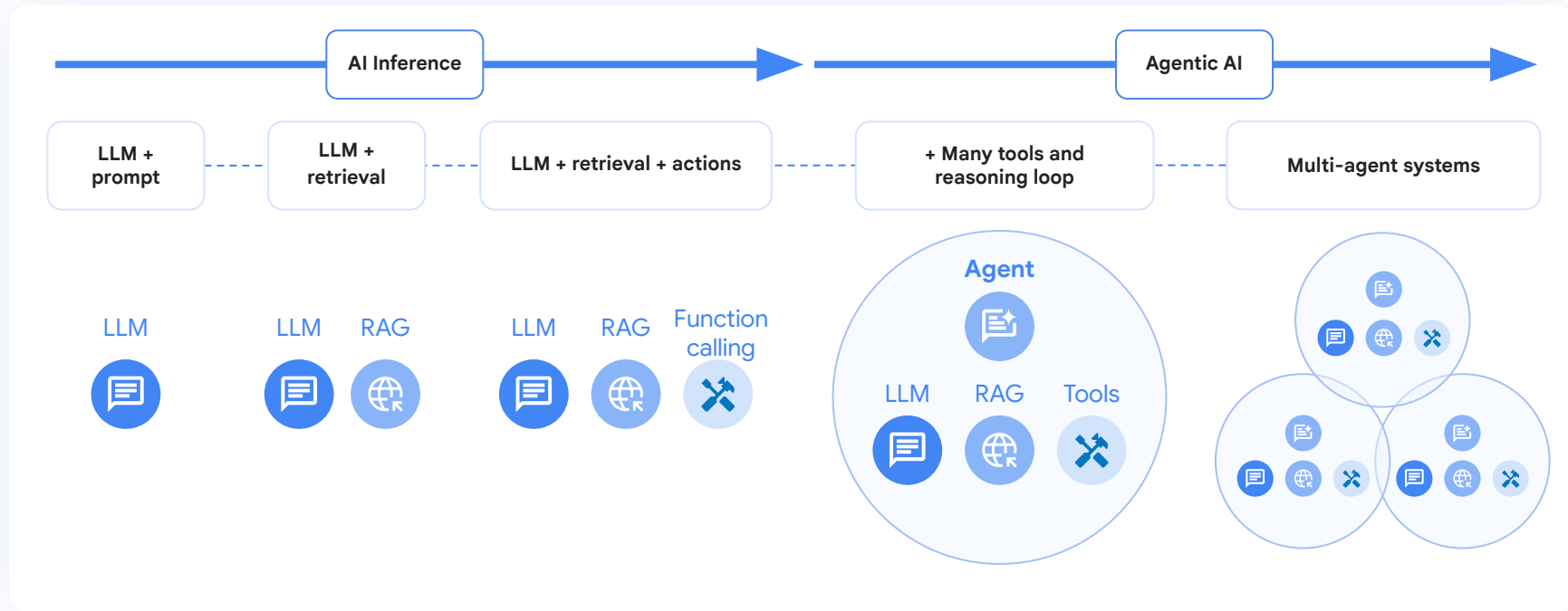
Developer Advocate
Cloud AI, Google Cloud

A2A: Designed for the future.

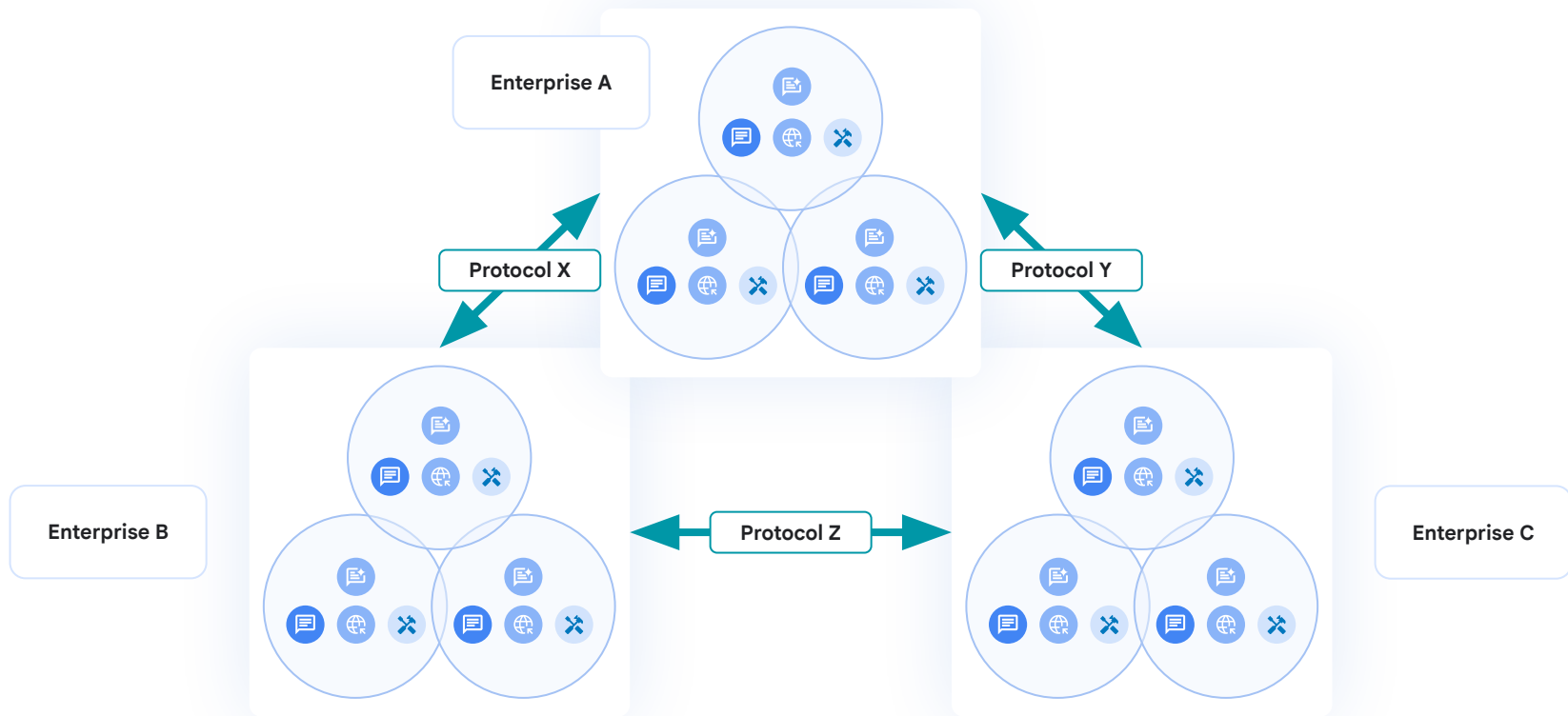
The future is imminent.



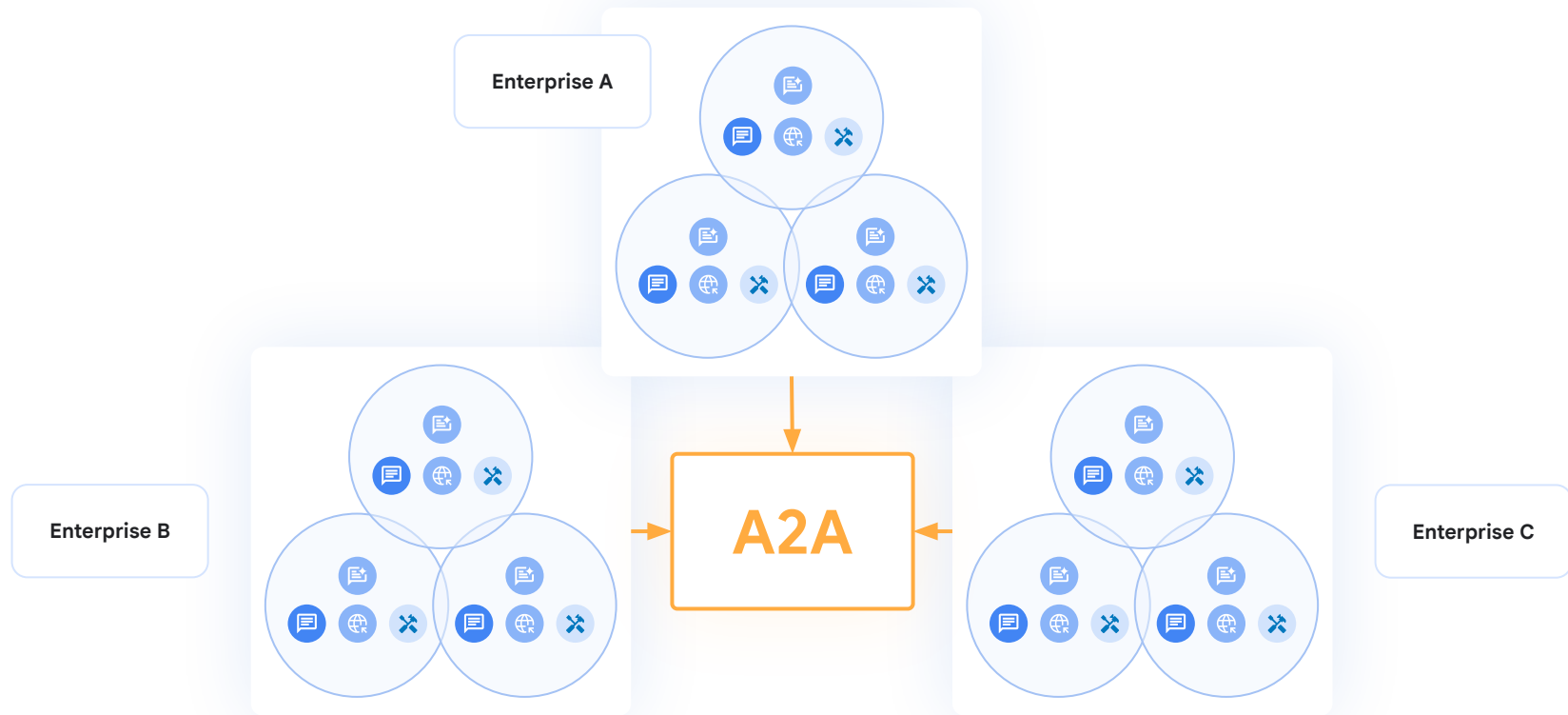
Evolution to Agentic AI



Society of Sprawled Agents



Society of A2A



A2A: HOW DID WE GET HERE?

STEP 1: IT'S OBVIOUS



CUSTOMER FRUSTRATION:
"WE BUY FROM EVERYONE.
I WON'T BUY FROM X IF IT
DOESN'T WORK WITH Y"



60% OF CUSTOMERS NEEDED IT.
30% WE'RE DOING THE SAME THING.
10% WANTED TO GRILL TODD.

A2A: HOW DID WE GET HERE?

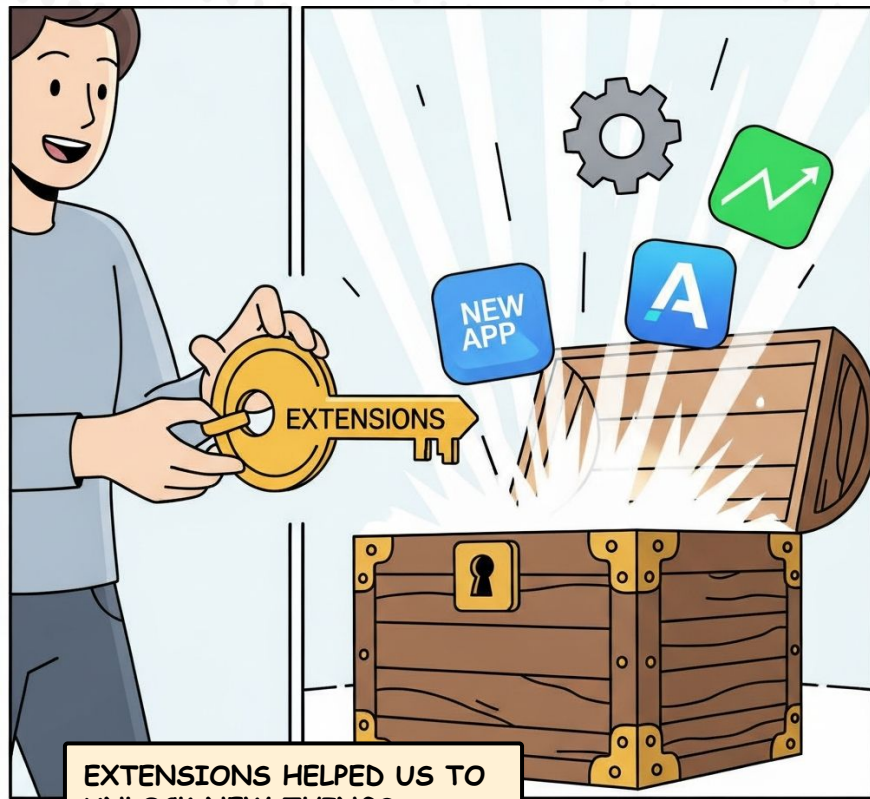
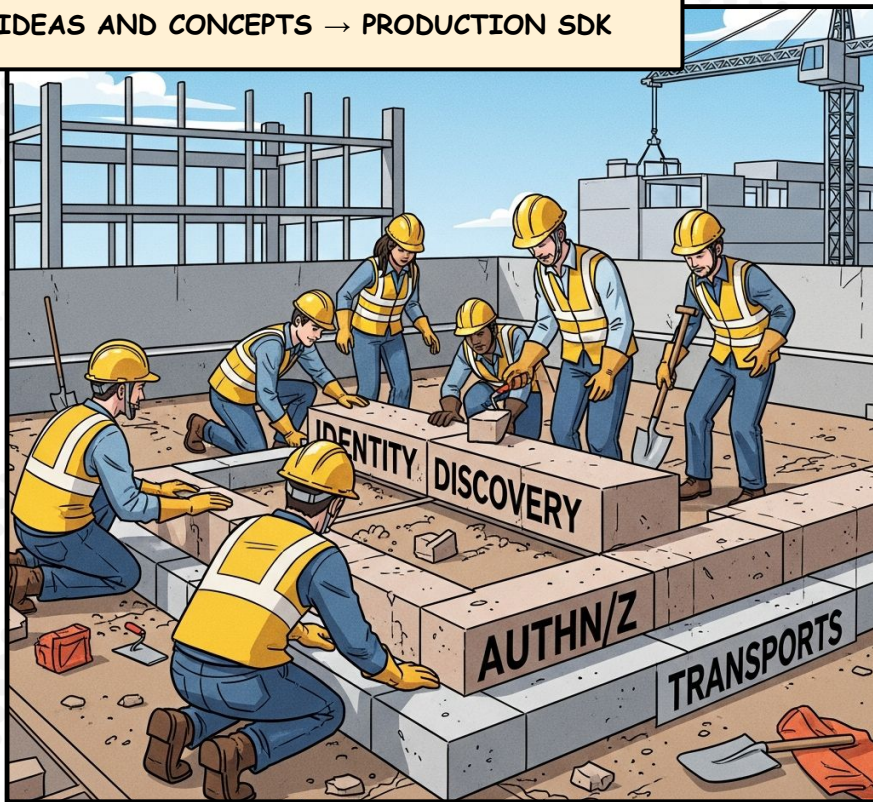
STEP 2: LET'S DEFINE IT OPENLY



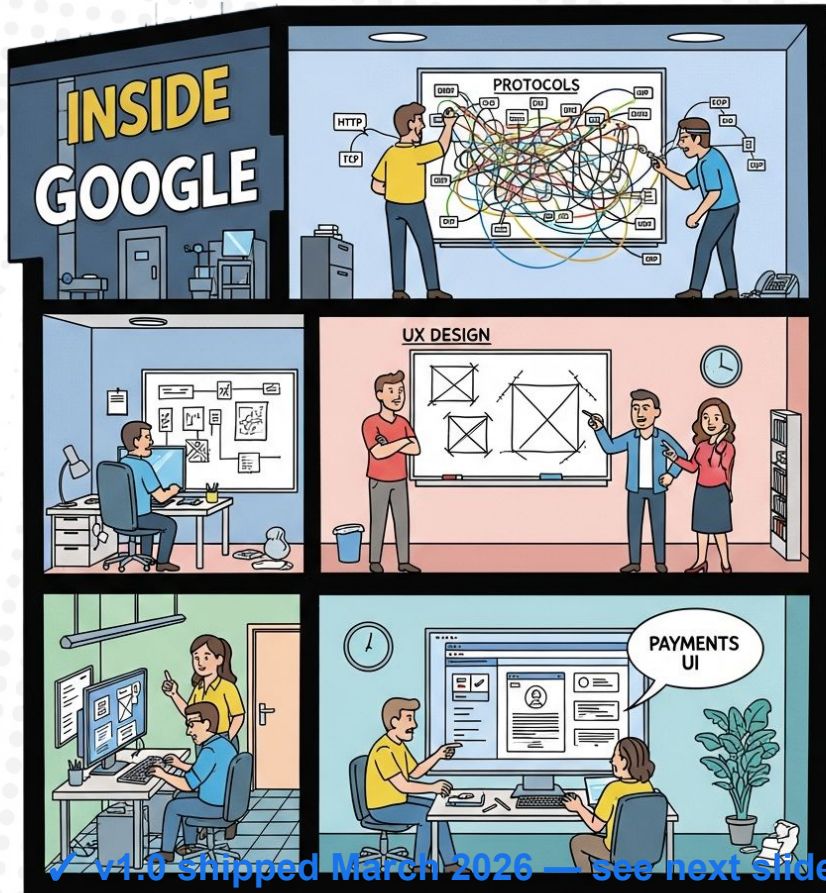
A2A: HOW DID WE GET HERE?

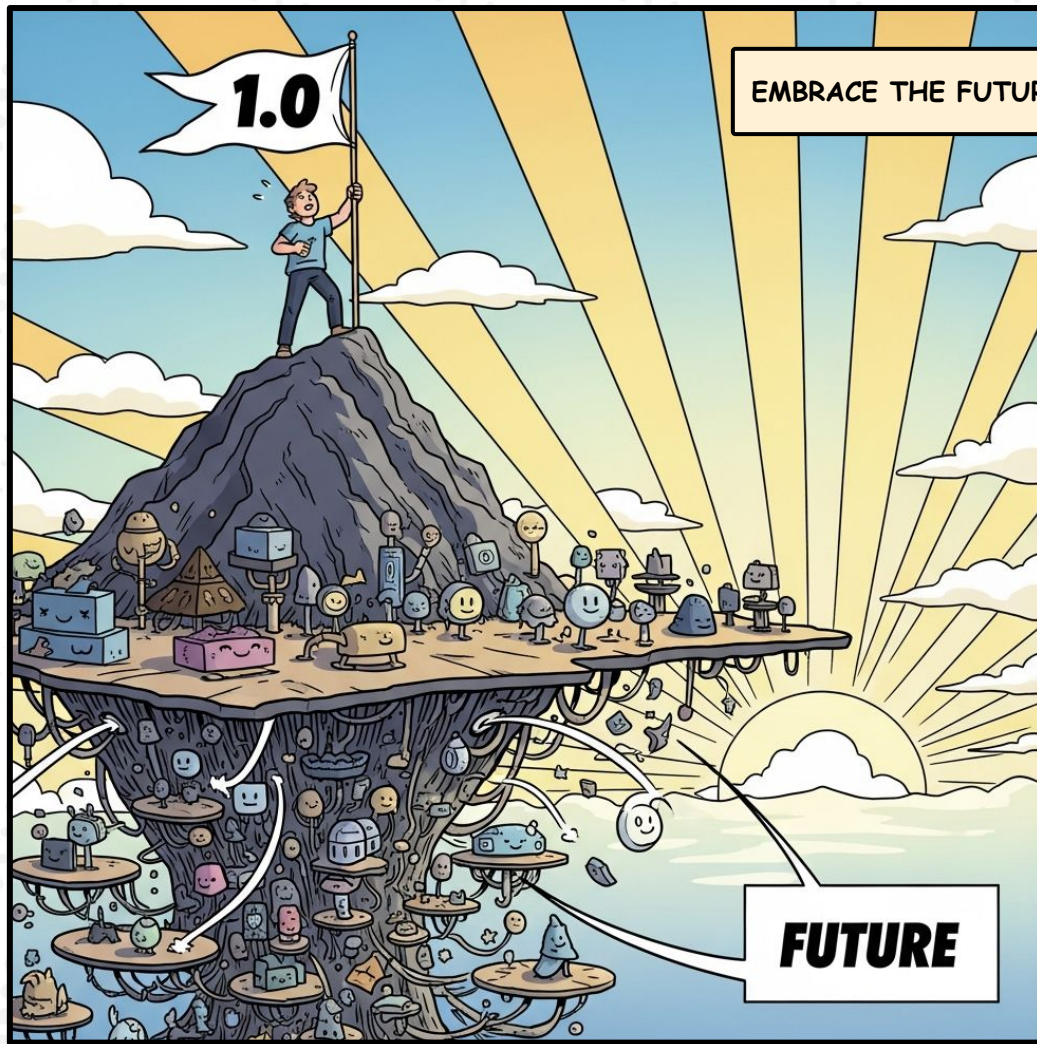
STEP 3: BUILDING IN THE OPEN

IDEAS AND CONCEPTS → PRODUCTION SDK



EXTENSIONS HELPED US TO UNLOCK NEW THINGS.





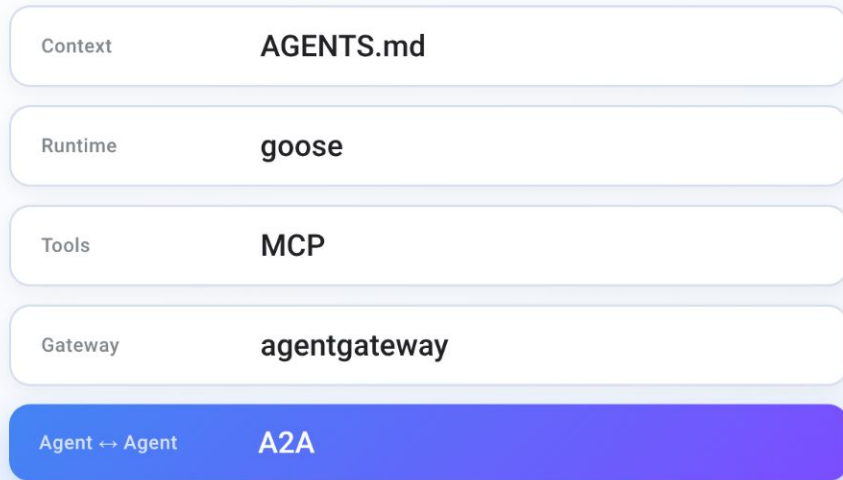
A2A's Founding Steering Committee



A2A Joins the Agentic AI Foundation

August 2026 · a neutral, vendor-independent home under the Linux Foundation

ONE OPEN AGENT STACK, ONE ROOF



THE JOURNEY



Backed by **150+ organizations** — including direct competitors

IN JUST ONE YEAR · MARCH 2026

A2A v1.0 Ships

The first stable specification — production-ready

v1.0
STABLE



Signed Agent Cards

Cryptographic identity verification builds trust between agents.



Multi-protocol bindings

HTTP+JSON · gRPC · JSON-RPC, with version negotiation.



Multi-tenancy

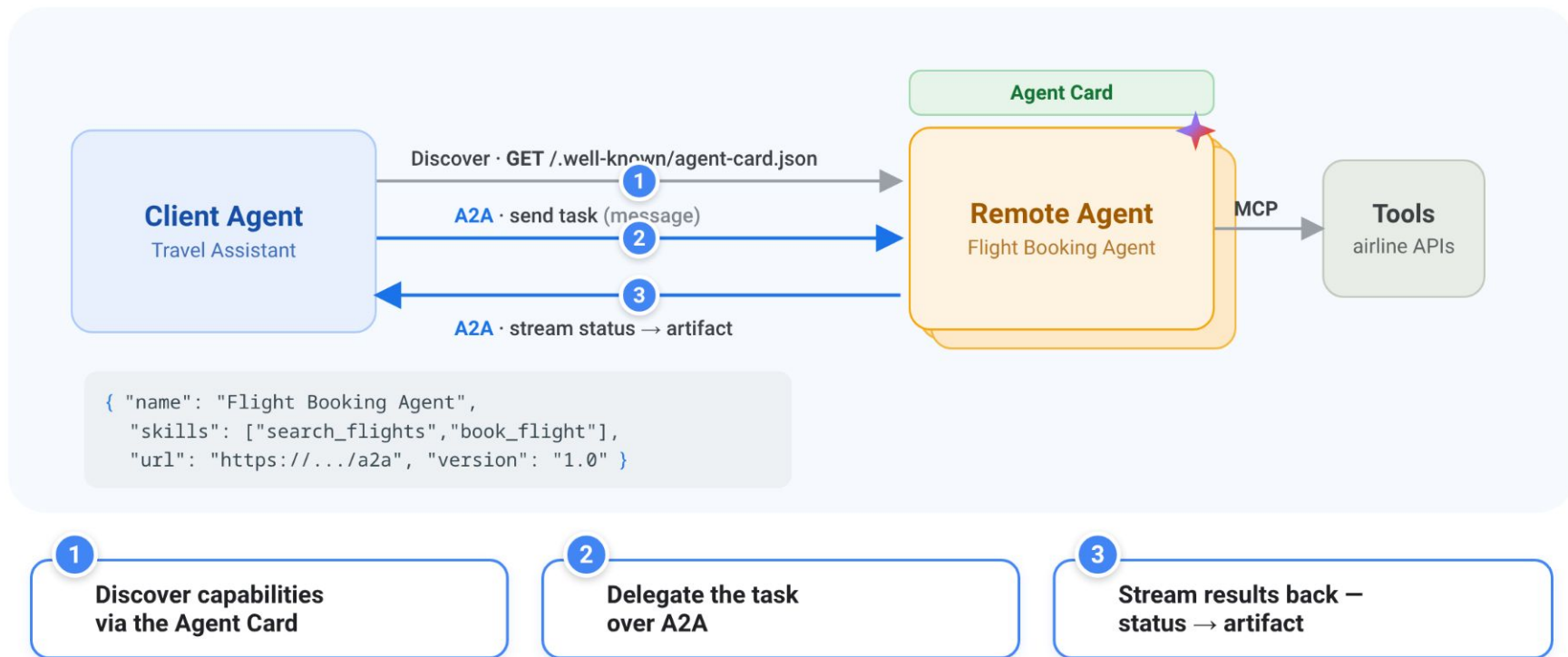
Enterprise-ready isolation built into the standard.



SDKs everywhere

Python · JavaScript · Java · Go · .NET / C#

Example: How A2A works



A2A SDKs & Integrations

A2A SDKs

- Python SDK
- Java SDK
- JS/TS SDK
- .NET SDK
- Go SDK  

Assets

- Dozens of videos, courses, etc
- Hundreds of posts & articles

Integrations

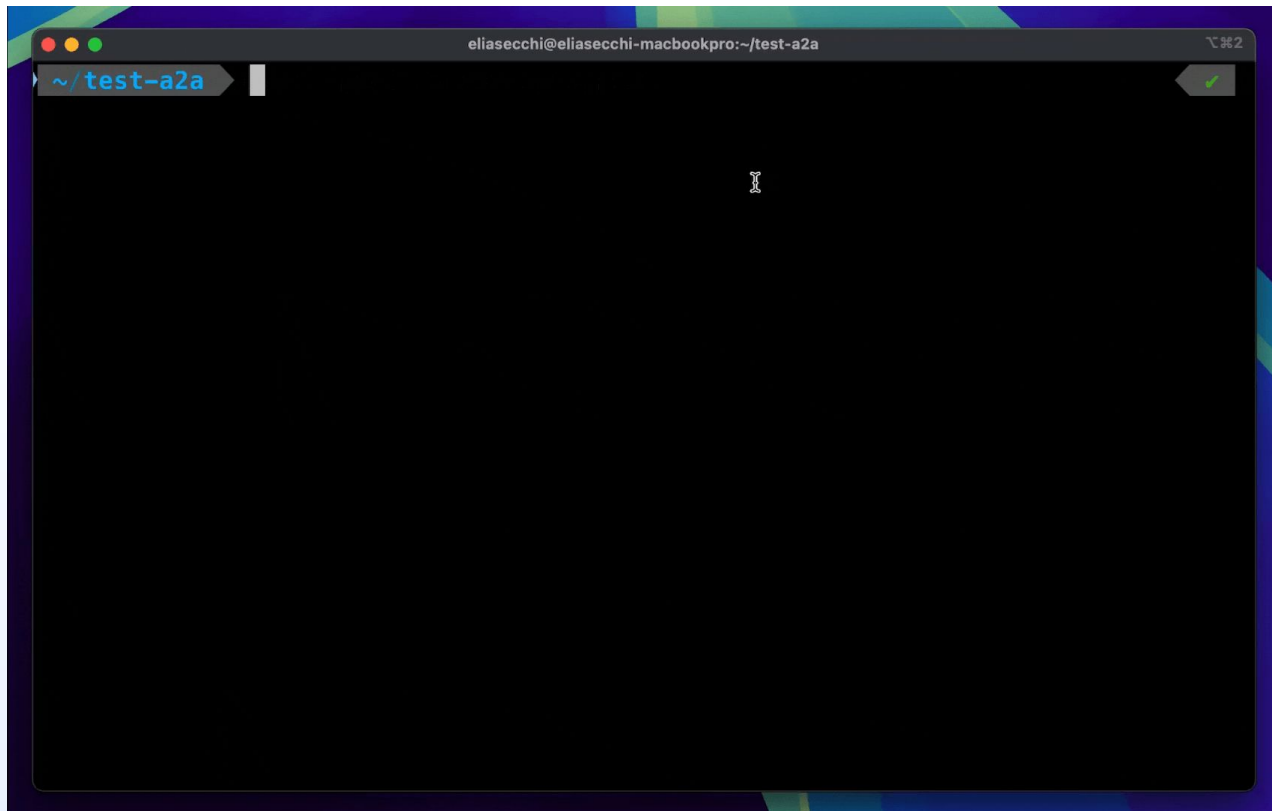
- AG UI / CopilotKit
- AG2
- Autogen
- AWS Strands
- Embabel
- Google ADK
- Koog
- LangGraph Platform (hosted)
- MCP (A2A bridge)
- Microsoft Agent Framework
- Semantic Kernel
- Vertex AI Agent Engine (hosted)

A2A SDKs & Integrations

Agent Starter Pack

(ADK, LangGraph,
CrewAI, etc)

Add A2A to any agent
along with CI/CD,
tests, terraform
deployments, etc



Running in Production at Scale

Not a demo — A2A is live across mobile platforms, clouds, and industries



Huawei · Celia

A2A is the standard between the Celia OS assistant and HarmonyOS app agents.



Tencent · WeChat

Assistant-initiated messages, voice & video calls over A2A with dual authorization.



Every major cloud

Google Cloud (ADK, Agent Engine, Cloud Run, GKE) · Azure AI Foundry · AWS Bedrock AgentCore.



Agentic commerce

AP2 (Agent Payments Protocol) with PayPal, layered on top of A2A.



Across industries

Supply chain, financial services, and mobile platforms in production.

150+

organizations backing A2A

A2A's open governance

From the blog

CLOUD

Google Cloud donates A2A to Linux Foundation

JUNE 23, 2025

Rao Surapaneni

VP and GM

Business Application Platform

Todd Segal

Principal Engineer

Business Application Platform

Michael Vakoc

Product Manager

Google Cloud

[Share](#)



A2A protocol



A2A Contributors

Thank you to everyone who contributed with code, ideas or reporting issues. It truly took a village

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aazizisoufiane	cciwami	felix-schultz	jocelynh-microsoft	mclenhard	rajib76	ThierryThevenet
abinashchhetri552-beep	cdavernas	fernando-torres-blip-ai	jpandrade30	mdii	rayneetgrewal	tiswanso
abiramit5	CHARLIE1210-A	fjuma	jrcks67	meharuno	Realsid	ToddSegal
acensia	chendatony31	fryfry33	jsahil	meiraleal	rescrv	TomorrowJM
adarshnarayanhegde	chenglin130	gianpaj	justin-octo	melvinjlobos	rhkisiwani	tomsun28
ahoblitz	Cheptoo-dev	gilamsalem	k-jarzyna	MG1-4	robert-at-pretension-io	tymorton
ai-boost	chitra-venkatesh	glushenkovIG	kadirpekkel	Michelschep	robomotic	ukshankar
aiagentexpert	clintwar	gNtino	KanchiShimono	mihaimaruseac	rohit2k21	vibnimit
Aias00	codefromthecrypt	gregboero	keenranger	mikeas1	rokonec	victorinect
AIxerum	coyotwill	grll	Kevin1466	mikesir87	romairi	vineethsai
ajaynagotha	Crokily	guglielmo-san	kimehdgns	mikestaub	ronaldpetty	vinoo999
akintunca	daltonnyx	hamidra	KiteSoar	mjunaidca	rootwarp	vishalmysore
alain-sv	danja	harrigan	KomachiSion	msardara	Roye-Wy	vsvn-tungnk
alampolee	darrelmiller	HeetVekariya	kpavlov	mukteshkrishra	rsoika	waitasecant
alanyst	davrous	Hekafin	krebznet	muscariello	ruFFaa	WaqasIshaque1
AlbumenJ	dayuyang1999	herczyn	kthota-g	mvakoc	sahilcreator07	whitestone0712
alinaqi	dbkalaria	holtskinner	Kunlun-Zhu	myh66	samuelemarro	whitlockjc
amye	debug313	hoonji	kyleacmooney	nemba1	sangpire	wjcwjc77
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andrewdavidmackenzie	developer-dexwox	HV9903	lambochen	nicholasbreckwoldt	sarvarimamov	wushubang
anjanas	dhaan-ish	iFurySt	Lancetnik	nunes-b	schematic18	xray918
anuj10121997	DJ-os	IhateCreatingUserNames2	lifieai	nvcnvn	SecureAgentTools	xtrasmal
architectureofthings	DracoBlue	ipapapa	Linux2010	ognis1205	sfitts	y-d-y
Areo-Joe	D Riley142	irshadnilam	liz877	ossfellow	shyam-habarakada	yarolegovich
ashubham	dylang	Ivanye2509	lj-raidiarn	pabl1t0	silverheartshafiq	ydenissy
BayramWilson	edenreich	izzysmft	lkawka	patwhite	simarsher220	yukuanj
benclarkegithub	EditUndo	Jaland	loganaden	pcingola	sing1ee	yuluo-yx
beonde	egor-baranov	jamesarmenta	loganwolfe-ims	Phil-Hills	spicet	yuqingzcn
bgauryy	eilon-shai	jamesev15	lrosenthol	powmax-commits	sreejit-a	YuqingZhao
bigmac7	Einsfier	jasonmadigan	LucaButBoring	prashubk	SteveJamesDev	yzhao244
Bill-XU	elCaptCode	jdocherty	lukehinds	prassanna-ravishankar	stkang90	z-a-f
birdayz	EliasLumer	jeromemassot	luyiourwong	priyankjecrc	suforme	zeroasterisk
blakebrannon	ericksonc	jlestebanbenu	madankumarpichamuthu	pstephengoogole	suvedo	zhangshenghang
blkt	EVAN-wt	jlfolland	maeste	pvasov	swapydapy	

Problem space: *Interoperability*



**Walled gardens and
tech islands**



**Stable and secure
communication**



**Agent plans adapt
to fit the world**



Conversational



**LM capability
escalation**



**Multi-modal streaming
and interfaces
beyond chat**

goo.gle/startup



Start and Scale with the **Google** **for Startups Cloud Program**

- ✓ Up to \$200,000 USD (up to \$350,000 USD for AI startups) in cloud credits over 2 years
- ✓ Access to technical training and hands-on labs
- ✓ Meet with dedicated startup experts, connect with startup communities, and access Google-wide discounts

A2A Demo

How to Make Agents Talk to Each Other
(and Your App) **Using A2A + AG-UI**



**OK... but can you
really *trust* an agent?**

**What about with real
money on the line?**



Agent Payments Protocol Launch

Announcement

Stavan Parikh

VP/GM, Payments, Google

Rao Surapaneni

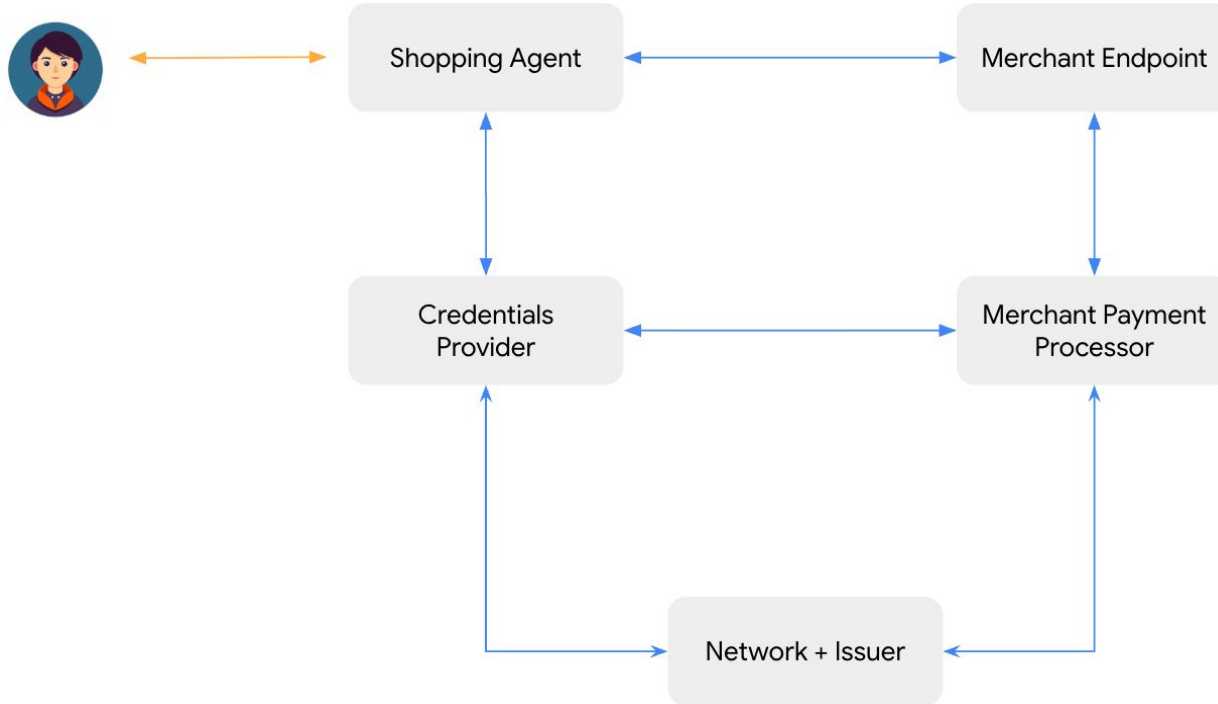
VP/GM, Business Applications Platform, Google
Cloud

Today, Google announced the [Agent Payments Protocol](#) (AP2), an open protocol developed with leading payments and technology companies to securely initiate and transact agent-led payments across platforms. The protocol can be used as an extension of the [Agent2Agent \(A2A\) protocol](#) and Model Context Protocol (MCP). In concert with industry rules and standards, it establishes a payment-agnostic framework for users, merchants, and payments providers to transact with confidence across all types of payment methods.

We're collaborating with a diverse group of more than 60 organizations to help shape the future of agentic payments, including Adyen, American Express, Ant International, Coinbase, Etsy, Forter, Intuit, JCB, Mastercard, Mysten Labs, Paypal, Revolut, Salesforce, ServiceNow, UnionPay International, Worldpay, and more.



Agent Payments Protocol



Agent Payments Protocol

Contributing partners



AP2 Demo from PayPal + Google



**OK... but how can we
do something other
than text?**

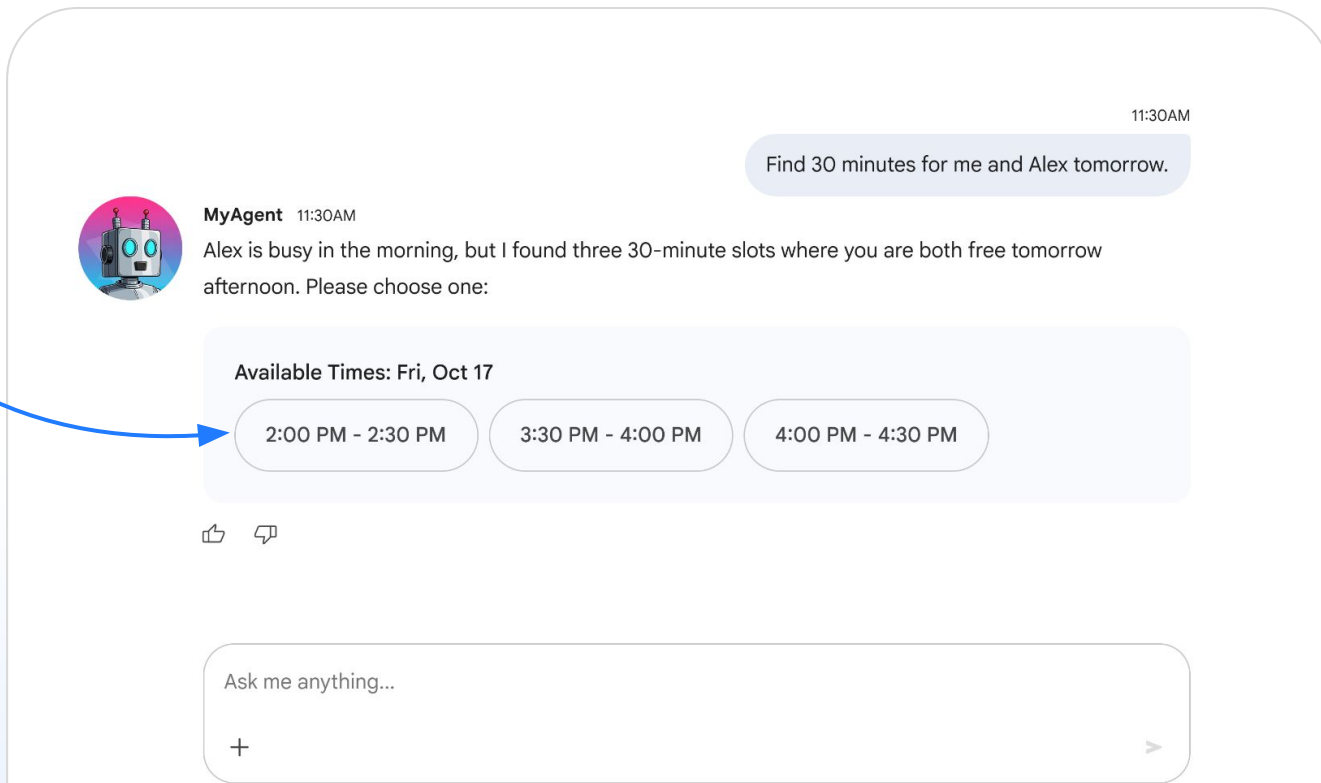
NEW

Announcing A2UI



You have an Agent... How does it render UI elements?

*Button options
are better than
asking the user
to type.*



The chat interface is contained within a rounded rectangle. At the top right, the time '11:30AM' is displayed. The user's message, 'Find 30 minutes for me and Alex tomorrow.', is in a light blue bubble. The agent's response, 'MyAgent 11:30AM', includes a robot icon and text stating that Alex is busy in the morning but three 30-minute slots are available for tomorrow afternoon. These slots are presented as three separate, light blue button-like options: '2:00 PM - 2:30 PM', '3:30 PM - 4:00 PM', and '4:00 PM - 4:30 PM'. Below the agent's message are thumbs-up and thumbs-down icons. At the bottom is a text input field with the placeholder 'Ask me anything...' and a plus icon on the left, and a right arrow icon on the right.

11:30AM

Find 30 minutes for me and Alex tomorrow.

MyAgent 11:30AM

Alex is busy in the morning, but I found three 30-minute slots where you are both free tomorrow afternoon. Please choose one:

Available Times: Fri, Oct 17

2:00 PM - 2:30 PM 3:30 PM - 4:00 PM 4:00 PM - 4:30 PM

👍 👎

Ask me anything...

+

➤

What about remote Agents?

*Forms and UI
interactions return
structured inputs*



Healthcare Now Agent 9:36 AM

I'm sorry to hear that. I can help you assess your symptoms and find the right resources. To get started, I need to collect a little more information.

What symptoms are you experiencing?

Ex: I have a persistent cough and a high fever.

How long have you had these symptoms?

1-3 days

Submit

Cancel Task



*The primary agent sends the
form's data after the user
clicks [Submit] via A2A.*

9:36 AM

Hi, I'm just... not feeling well.



Symptom Checker Agent (Remote Agent)

Here is the structured data from the form:

```
JSON
{
  "symptoms": "Headache and fever",
  "duration": "About 1-3 days"
}
```

What about more sophisticated UI widgets?

1:23 PM

Do I have any meetings next Wednesday? I'm thinking of taking a day of vacation.



Lucky Day Scheduler 1:23 PM

Certainly. I've checked your calendar for next Wednesday, Jan. 22nd. You have two meetings.

■ Standup

Wednesday, January 22 · 1:30 – 2:00pm

Weekly on Wednesday

 Meeting room 4a

 3 guests
2 yes, 1 maybe

 Lori Cole
Organizer

 Grace Bishop

 Adam Lee
Optional

 Let's get together to discuss what's happening across our teams during the week. No need to prepare anything. Feel free to invite others

 lori@cymbal.com

Going?

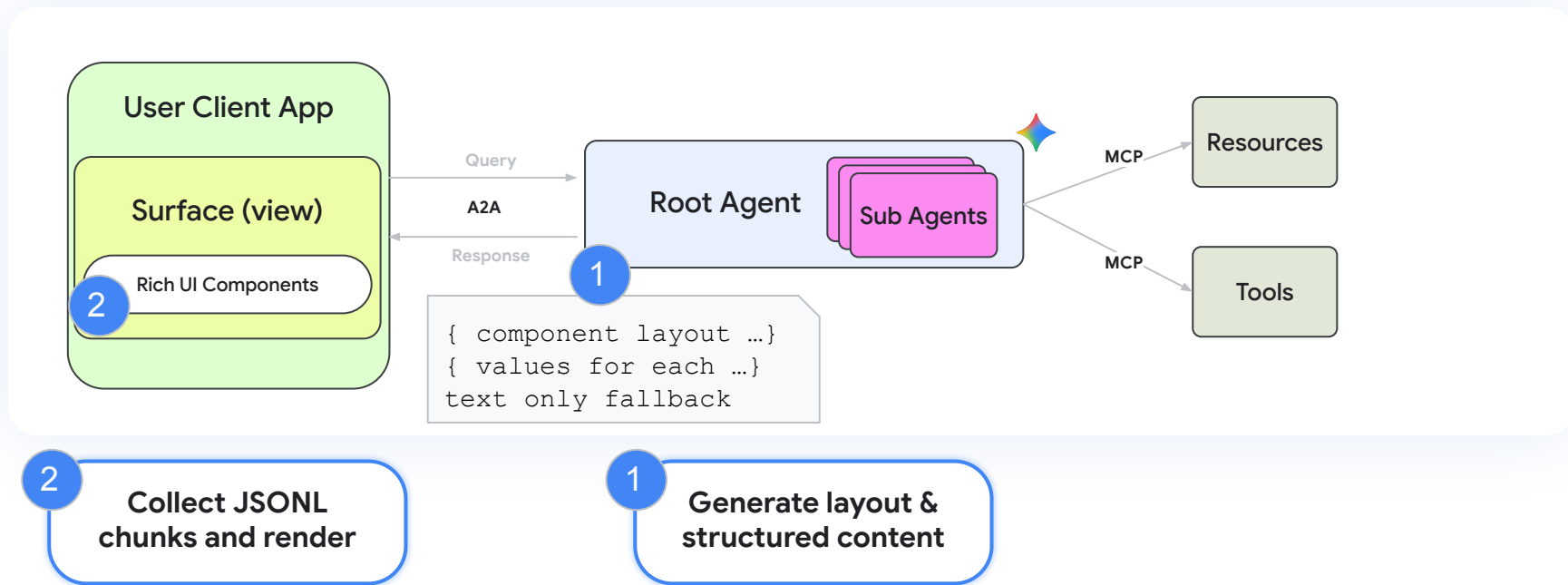
Yes

No

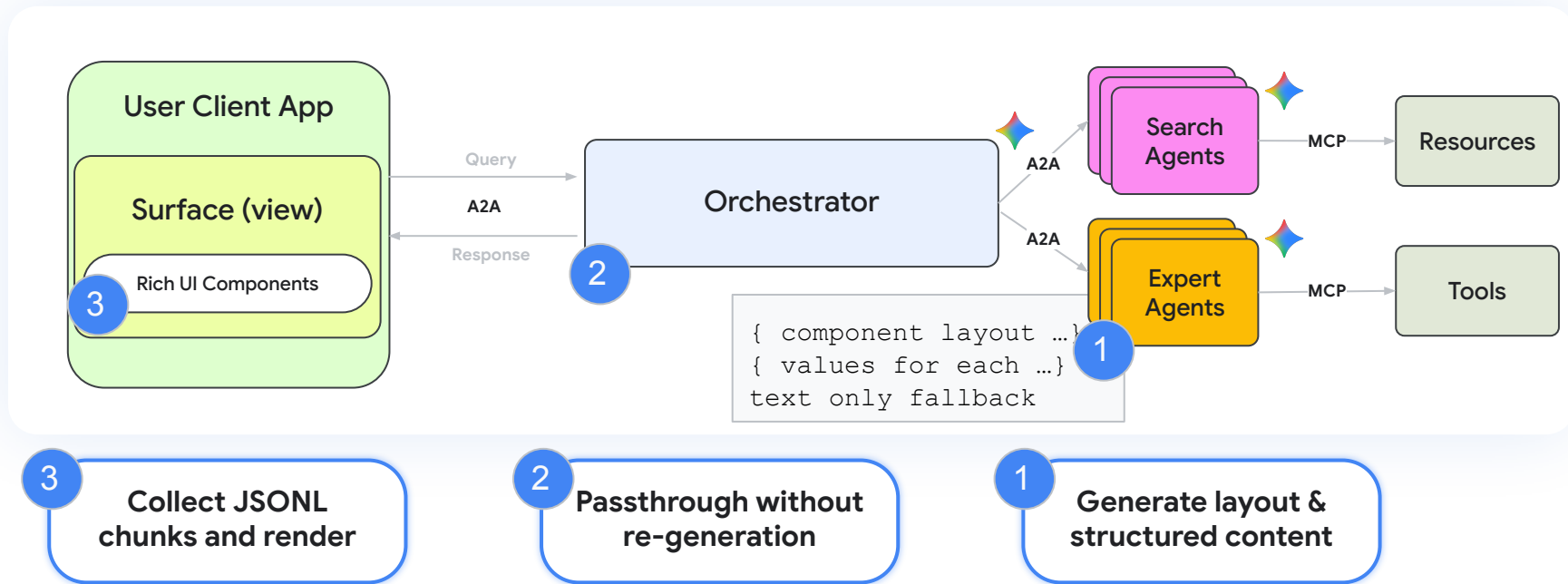
Maybe

■ Coffee

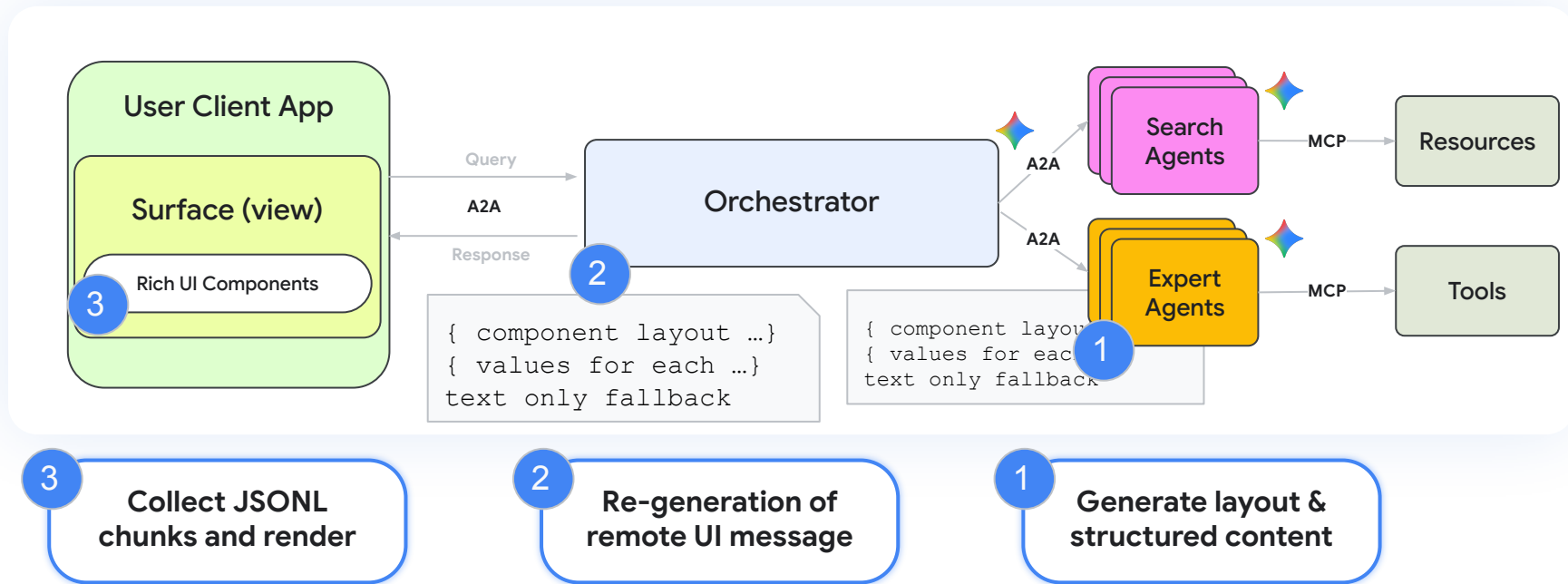
Example: Local agent generation



Example: Remote agent generation



Example: Remote agent generation, orchestrator rewrite





MyCharts Agent

I help you understand and visualize
sales pipelines and analyze customer
performance data.

Ask the MyCharts agent



AI sometimes generates inaccurate info, so double-check responses.



Landscape architect agent

Mix custom components with fully
AI-generated UI with A2UI

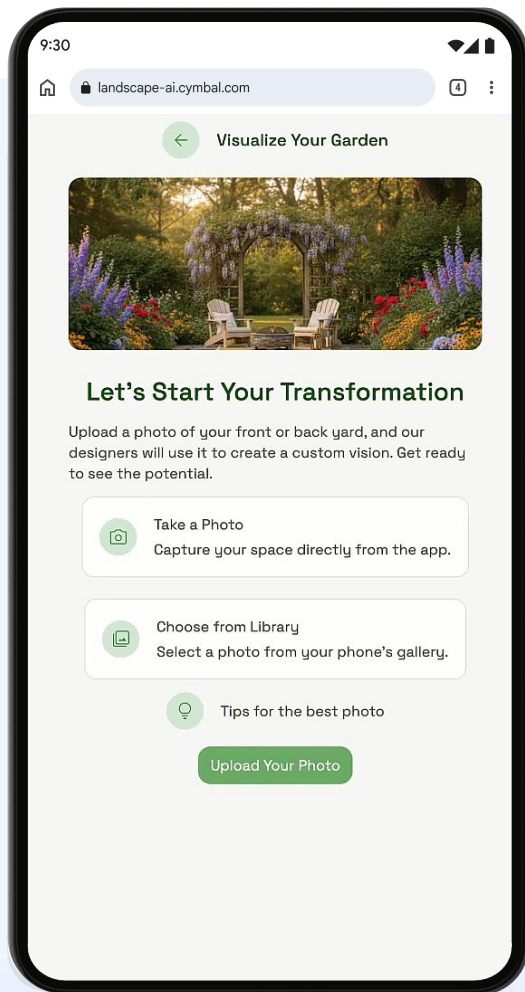
Demo

Landscape Architect

Web view on mobile



*Also works in
a web view!*



How do I get access?



The Future of UI is LLM-Generated

A new open source UI Toolkit to facilitate LLM-generated UIs. A2UI is built with [A2A protocol](#) and allows an A2A agent to send interactive components instead of just text, using a high level framework-agnostic format that can be rendered natively on any surface (starting with examples for web and mobile).

[Join the Waitlist](#)



Hoping for early Dec

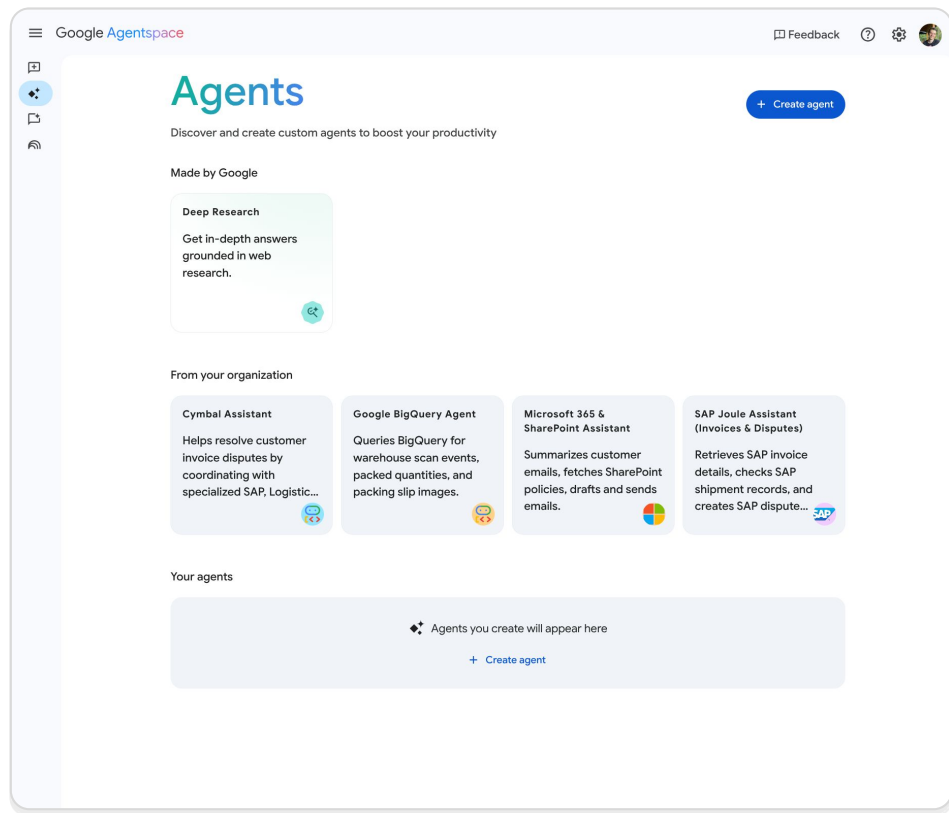
Update (2026): check a2a-protocol.org for current A2UI availability

**OK... but where do
we go from here?**

**What problems
do we need to
solve next?**

A2A Roadmap @Google

- Gemini Enterprise apps
- Cloud Marketplace for Agents
- Conversational Commerce Agent
- Customer Engagement Suite
- ADK + Agent Engine
- Antigravity
- Many hundreds of internal, customer, or partner projects



A2A Needs You to:

Show Successes

- **Publish A2A wins**
Blogs, videos, conferences...
show impact of your agents
- **Work together!**
Let me use your agents
You use mine
Show up

Demand Support

- **Get your agents out there**
Are your agents more than tools?
- **Make your agents visible:**
Everywhere, not just your tools

Thank you

