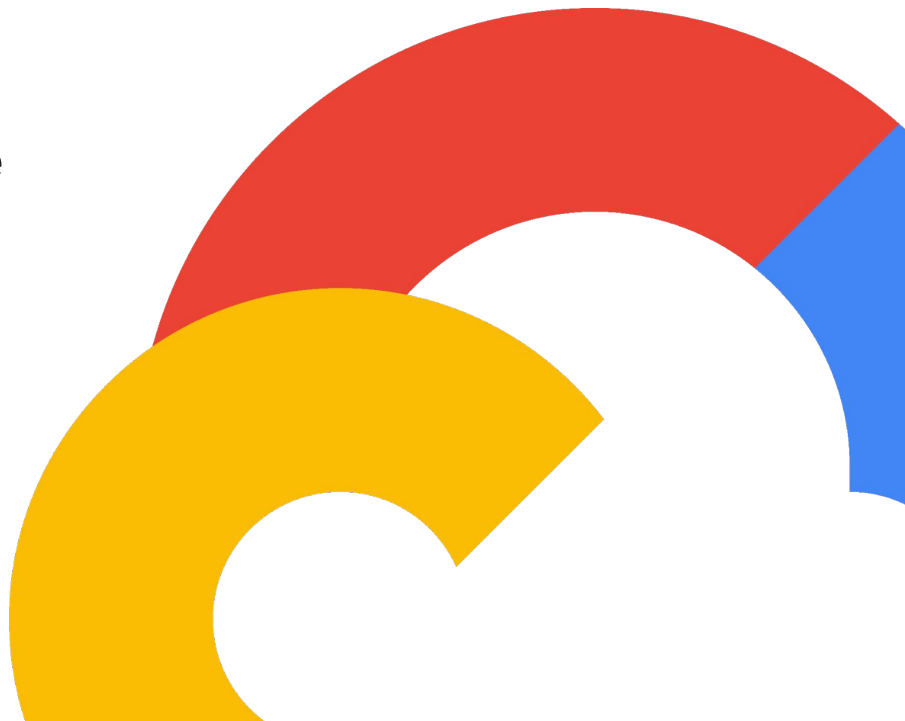


How AI Helps Revolutionize Cloud Development

From Infrastructure to Intelligence

Ekkarat Klinbubpa
AI Specialist, Google

Google Cloud





Hello, Ekkarat

below is my speaking session with agenda, suggest me 10 slides content:

How AI Helps Revolutionize Cloud Development

AI จะมาพลิกโฉมการพัฒนา Cloud จากเพียงแค่โครงสร้างพื้นฐานสู่ระบบที่ชาญฉลาด ยืดหยุ่น ปรับตัวได้อัตโนมัติ
สู่ระบบอัจฉริยะ

- ใช้ AI เพื่อเพิ่มความแม่นยำในการจัดสรรทรัพยากร Cloud แบบอัตโนมัติ
- เร่งกระบวนการ DevOps และการปรับใช้ ด้วย AI-Powered Automation
- วิเคราะห์ประสิทธิภาพระบบแบบ Real Time และคาดการณ์ความต้องการล่วงหน้า



Tools

Data (all)



Take action

Analyze data

Write code

Help me write

Notebooks [See more](#)

Google I/O 2025: สรุปประกาศ
สำคัญ 100 เรื่อง

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มาตรฐานความมั่นคงปลอดภัย
ใช้เบอร์ระบบคลาวด์: Cloud
First Policy

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แนวโน้มตลาดการเงินไทย: H2
2025

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ประกาศ สปท.: หลักเกณฑ์การให้
สินเชื่อยังมีความรับผิดชอบ

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The 4 Pillars of AIOps on Google Cloud

Leveraging Artificial Intelligence to build self-healing, self-optimizing, and intelligent cloud operations.



1. Precision Resource Automation

"Using AI to automatically and intelligently allocate the right resources at the right time, eliminating waste and ensuring performance."

Mapped Google Cloud Offerings:

Google Kubernetes Engine (GKE) Autopilot & Autoscalers:

- **VPA & HPA:** Right-sizes and scales pods based on real-time usage.
- **GKE Autopilot:** Hands-off, fully managed infrastructure and node scaling.

Active Assist (Recommender API):

- Provides ML-driven recommendations to right-size VMs and cut costs.



2. AI-Powered DevOps Acceleration

"Infusing the entire software development lifecycle with AI to help developers code faster, build more securely, and deploy with confidence."

Mapped Google Cloud Offerings:

Duet AI in Google Cloud:

- **AI Code Assistance:** Code completion, generation, and explanation in your IDE.
- **AI-Assisted Troubleshooting:** Helps debug and understand errors in logs.
- **Generative AI for Testing:** Automatically generates unit tests.

Cloud Build & Artifact Registry:

- Injects security intelligence via automated vulnerability scanning.



3. Proactive & Predictive Operations

"Moving from reactive troubleshooting to proactive and predictive system management using AI to analyze operational data in real-time."

Mapped Google Cloud Offerings:

Cloud Operations (AIOps):

- **Cloud Monitoring:** Anomaly detection alerts you to problems before outages occur.
- **Log Analytics & Error Reporting:** Surfaces new errors and identifies root causes.

Managed Service for Prometheus:

- Enables sophisticated alerting and forecasting on performance metrics.



4. The Intelligent Learning Loop

"Creating a self-improving system where AI analyzes operational outcomes and continuously refines its own automation rules, making the entire cloud operation smarter over time."

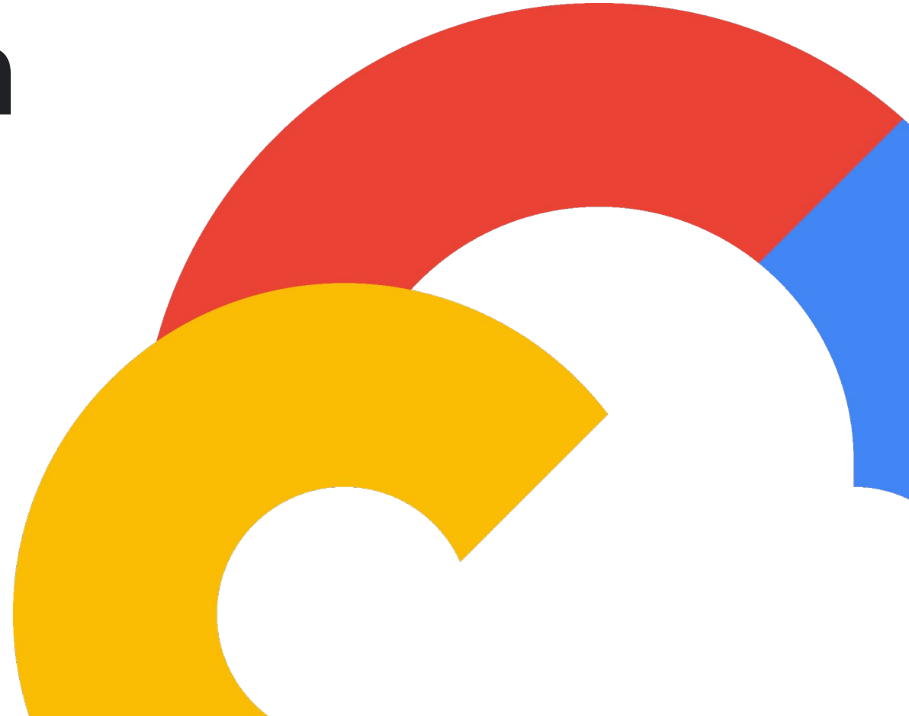
An Integrated Architecture:

- 1 Monitor & Predict (Pillar 3)**
Cloud Monitoring detects a predictive trend (e.g., future latency spike).
- 2 Trigger Action (Pillar 2)**
An alert triggers a Cloud Function or Cloud Build job.
- 3 Act Intelligently (Pillar 1)**
The function calls the GKE API to proactively scale a microservice.
- 4 Learn & Refine**
Data is fed into BigQuery & Vertex AI to train models that create smarter, more sophisticated automation rules over time.

Building the future of your enterprise with AI

Proprietary & Confidential

Google Cloud



AI is shifting
from a tool for
efficiency into
a **powerhouse
for innovation**



Google Cloud's AI-optimized platform helps you achieve key business outcomes

Operate Smarter

Automate workflows
with true agentic power

55%

Reduction in developer setup time



Innovate Faster

Accelerate the creation of
differentiated products & services

20B

Video and image assets generated

Adobe

Drive Growth

Delight your customers
across every interaction

30+

Second faster call time resolution



Operate smarter

Automate workflows with true agentic power

Top challenges

Scattered critical information

Inefficient manual workflows

Inconsistent code standards



Our solutions

Leverage a unified AI, chat and agent platform

Automate mundane tasks with agents

Implement AI-powered code suggestions

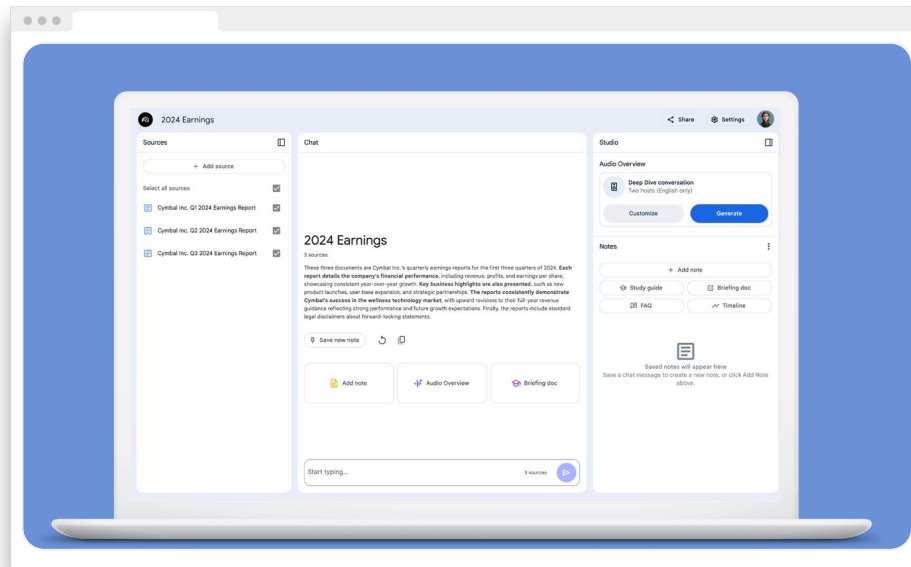
Build, manage and adopt AI agents at scale

Build your own enterprise-grade agents

Leverage Google Cloud's portfolio of pre-built agents

Bring in best-in-class partner agents available through the Google Cloud Marketplace

Google Agentspace



Develop faster with AI that understands your code

Boost developer output by automation
and code suggestions

Improve code quality and security via
error detection and best practices

Accelerate innovation with AI that
integrates into your tools

Gemini Code Assist



Gemini CLI can be used for a wide variety of tasks, including making a short video showing the story of a ginger cat's adventures with Veo and Imagen

Innovate faster

Accelerate the innovation of differentiated products and services

Top challenges

Limited in-house
AI expertise

Time-consuming,
expensive visual
content production

Demanding AI
workload scalability

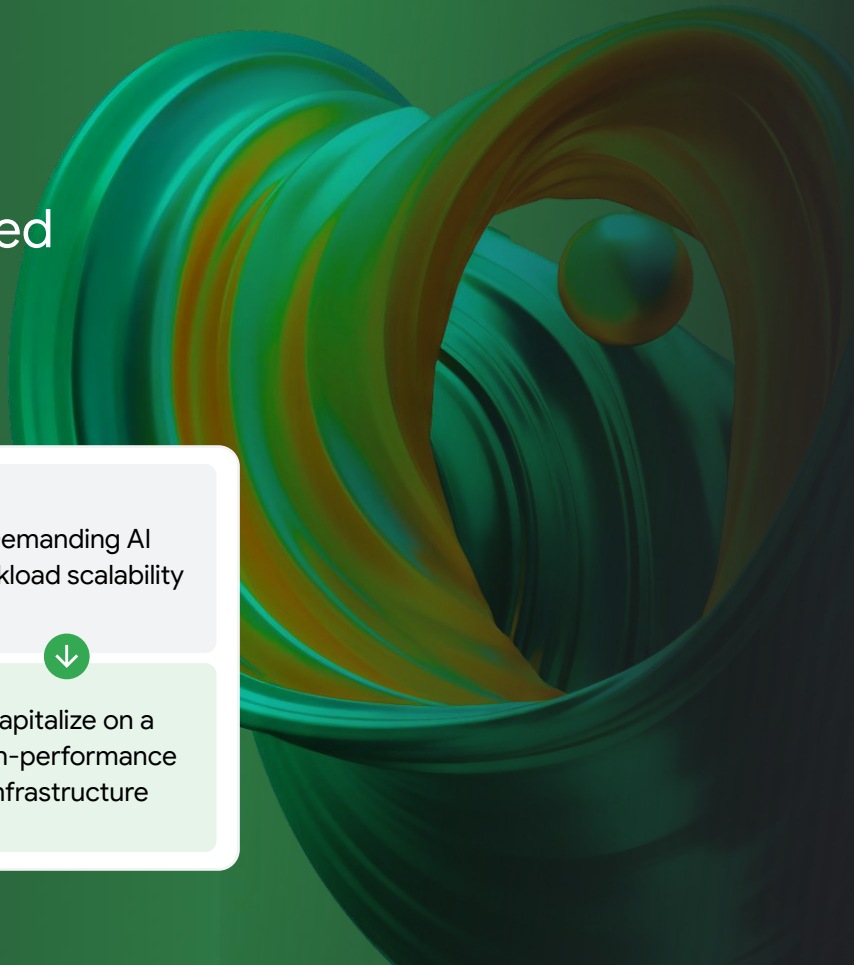


Our solutions

Leverage pre-trained,
no-code AI models

Generate visuals from
simple text prompts

Capitalize on a
high-performance
infrastructure



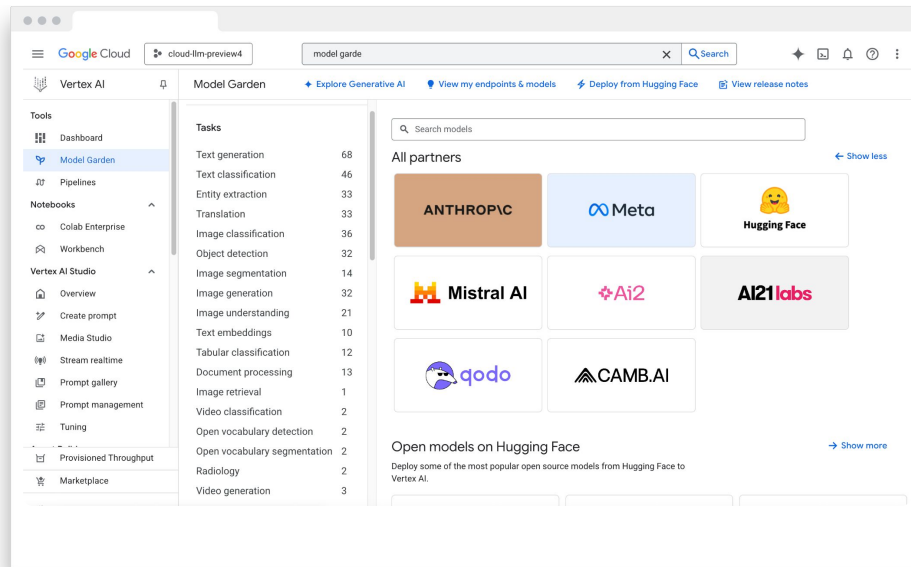
Build apps and experiences powered by AI

Accelerate time-to-value for all your AI projects with Vertex AI

Ground your models in your enterprise data and real-world insights

Get the right model for any use case with 200+ industry-leading models

AI Apps & Platform



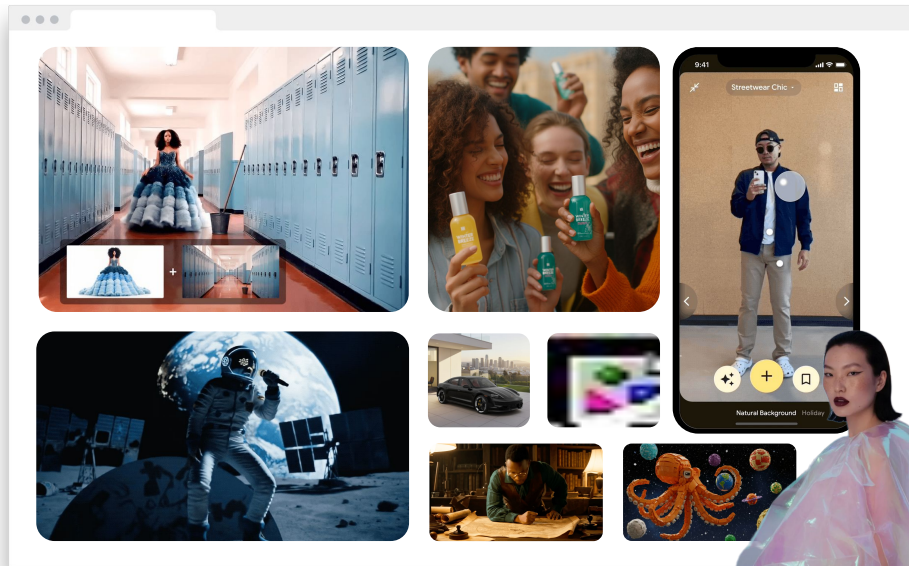
Bring creative ideas to life with the click of a button

Create personalized video content with sound tailored to any customer segment at scale

Instantly generate on-brand assets with superior image detail & accurate typography

Maximize creative ROI with a unified workflow & responsible SynthID watermarking

Veo & Imagen



Drive growth

Delight your customers across every interaction

Top challenges

Fragmented and insecure data search

Rising customer expectations

Our solutions

Unify and secure internal / external data access

Empower virtual agents for routine inquiries

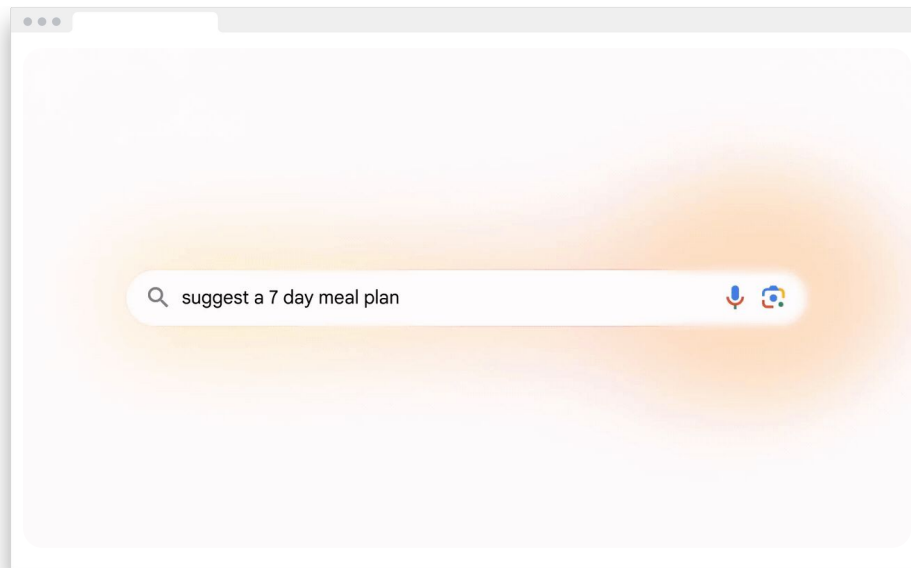
Provide a modern search experience for your customers

Increase customer spend with hyper-relevant, AI-powered product recommendations

Improve the customer journey by understanding complex, conversational search queries

Drive new revenue by automatically promoting tailored offers and sponsored results

External Search

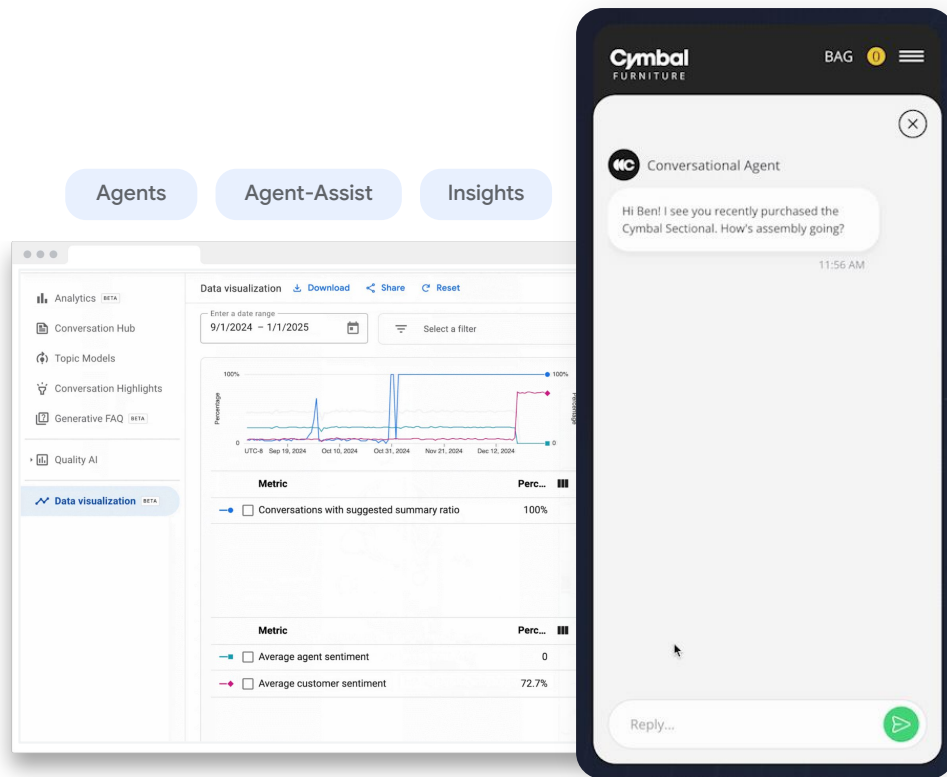


Improve customer satisfaction while reducing operational costs

Deliver human-like, personalized customer engagement across all touchpoints

Boost agent efficiency and customer satisfaction with real-time AI guidance

Gain actionable insights powered with AI to improve team performance and coaching

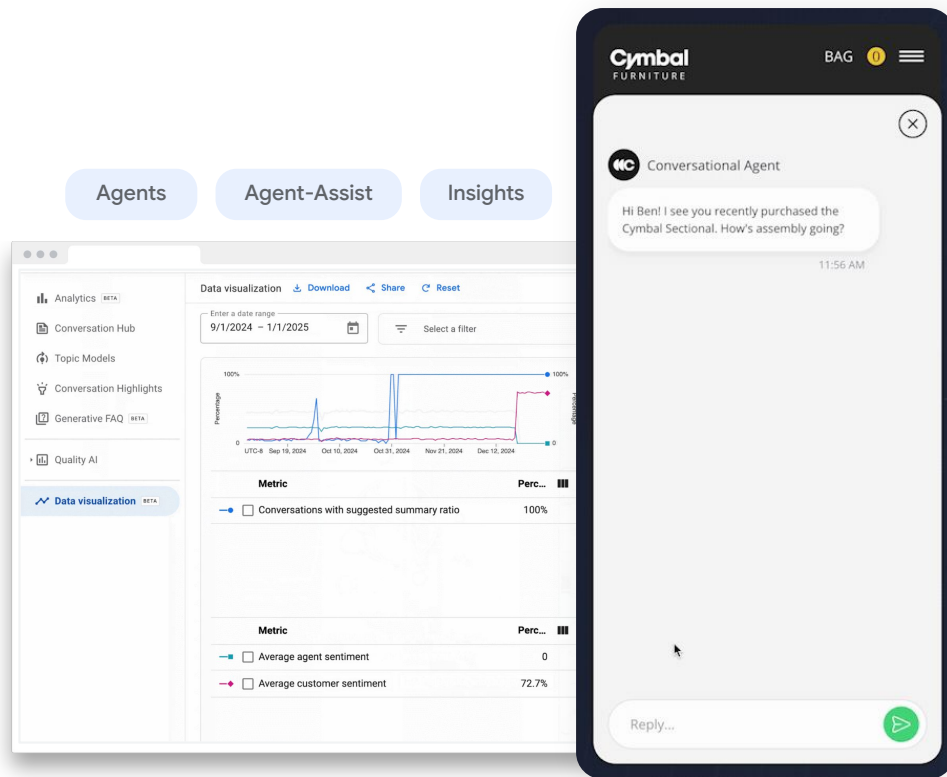


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Confidently secure AI workloads at every layer of the AI stack

Mitigate AI risks, threats, and safety concerns with a secure-by-design foundation



Infrastructure

Secure-by-design
infrastructure for AI
apps



Data

Protect all AI model
data (training,
fine-tuning,
inference)



Models

Secure models,
prompts, and outputs
(development &
runtime)



Platform

AI deployment platform
with specific controls
and threat detection



Agents

Safely control AI
agent permissions,
decisions, and tool
usage

Secure your entire AI environment with Google Cloud Security

Why Google Cloud is the **AI** partner of choice



End-to-end
open platform



Data and
infrastructure excellence



World-class
foundational models



Unified security, supercharged by AI

Thank you

