

# The AI agent handbook

An abstract graphic consisting of numerous thin, horizontal, wavy lines in a vibrant blue color. These lines are layered and offset from each other, creating a three-dimensional, undulating effect that resembles a stylized cloud or a series of overlapping waves. The graphic is positioned in the upper right quadrant of the image, partially overlapping the title text.

Work smarter.  
Not harder.

# Welcome to your new team of AI agents



VP, Global Generative AI GTM,  
Google Cloud

AI agents are a major leap from traditional automation or chatbots. They can execute complex workflows, from translating financial data into a digestible podcast, to generating and testing novel ideas, to composing and sending emails—ultimately helping employees get more done.

Organizations are racing to embrace them to improve cost and time savings, along with exponential improvements in value creation. Explore 10 ways to use AI Agents today in this guide.



# 33%

By 2028, **33% of enterprise software applications** will include agentic AI, up from less than 1% in 2024 —enabling **15% of day-to-day work decisions** to be made autonomously.<sup>1</sup>

game, with their ability to find information across internal and external sources, understand advanced concepts with deep institutional knowledge and subject matter expertise, and act on an employee's behalf—carrying out tasks or workflows via AI agents purpose-built for the job. Each employee can collaborate with on-demand expert agents, while putting other agents to work on automated tasks.

<sup>1</sup> Gartner (2024). [Intelligent Agents in AI Really Can Work Alone. Here's How.](#)

<sup>2</sup> PRNewswire (2024). [New research from Google Workspace and The Harris Poll shows rising leaders are embracing AI to drive impact at work](#)

<sup>3</sup> Google Workspace (2024). [Poll uncovers how new and aspiring leaders deepen their impact with AI](#)



**01** Effortlessly search for enterprise data like never before



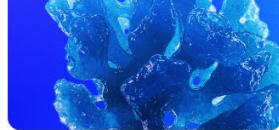
**02** Transform complex documents into engaging podcasts



**03** Generate your best ideas in minutes



**04** Consult an expert on anything



**05** Personalize customer experience at scale with multi-agent AI



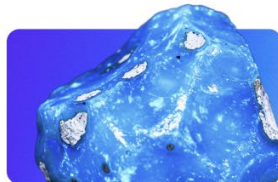
**06** Boost marketing engagement and conversion rates



**07** Shorten the sales cycle



**08** Find a bug in your code and fix it, with just a prompt



**09** Simplify onboarding and other HR workflows



**10** Build your own AI agent



# data like never before



# challenge

You've got information spread across the enterprise. There are documents, spreadsheets, and files sitting in Google Drive. Emails in your inbox. Customer data in your CRM. You need to make business decisions based on all these disparate data sources, yet you have no easy way to piece it together. This complexity hampers your ability to access and query data in a timely manner.



# solution

You plug in a powerful multimodal search to supply your employees—and your AI agent ecosystem—with easy and instant access to all relevant data sources. While not technically an AI agent itself, enterprise search then becomes the foundational layer for agentic AI.

CRM data, order management systems, HR Information Systems, IT ticketing systems, knowledge bases, policies, project trackers, and much more—all without switching between different apps. Its unified search capabilities are easily accessible from the Chrome Enterprise search bar, letting employees leverage multimodal agentic intelligence in a space they already work in: the Chrome browser.

Pre-built connectors to common enterprise systems enable instant access to organizational data, and real-time information from the internet. Further, it incorporates Google's cutting-edge knowledge graph technologies to identify relationships between content and users, resulting in a more personalized and context-aware search experience grounded in company-specific information.



What is the company policy for parental leave?

+

Locate the internal analyst report on the semiconductor industry published last quarter.

+

Deep Research

Web search

Sources





Employees are benefitting from easier access because they can search across multiple systems in one place, which translates to better decision-making, and less legwork to discover information. Ultimately, Agentspace will enhance both our internal operations and product development, enabling us to serve our customers better.”

### **Matt Jansen**

Manager of Emerging Technology,  
Gordon Food Service

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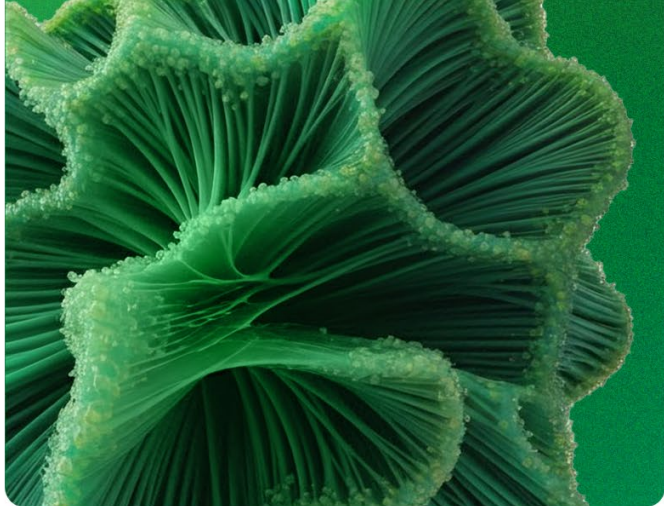




Through a groundbreaking collaboration with Google Cloud, clinical standard work (CSW) pathways will now be available at healthcare providers' fingertips through the launch of Pathway Assistant, an AI agent designed to streamline access to critical, evidence-based information within the CSWs. Built with Google's Gemini models on Google Cloud's Vertex AI platform, Pathway Assistant rapidly synthesizes information from CSWs—including text, images, and the latest medical literature—to help healthcare providers retrieve what is needed to make informed, accurate, and potentially life-saving decisions. Pathway Assistant can find and share information in seconds, in contrast to up to 15 minutes if done manually.

[Read more](#) →





# documents into engaging podcasts



# challenge

You're the manager of a finance team and the day has disappeared. Yet you still haven't gotten to that detailed spend report, which you need to read before deciding on the next quarter's budget. By this point in the day, you're mentally exhausted and just want to hit the gym.



# solution

You use an AI agent to create a podcast summary of the report, which you can listen to during your workout.

information more approachable, while laying requisite security and privacy controls.

To put NotebookLM to work, you simply upload a range of documents into a notebook and then start asking questions. For example, a financial analyst could upload profit and loss statements, balance sheets, and cash flow reports—and then ask for a podcast summary of all the data. A business analyst could upload analyst reports, news articles, company filings, and internal notes related to a specific investment idea—and then ask for a pros and cons list. A marketing analyst could upload customer survey results, social media comments, or customer review documents—and then ask for a customer sentiment report.



Identify any recurring objections raised by [prospect name] across these documents.

+

Analyze the revenue growth trend for [company name] over the past 3 years based on the uploaded statements.

+

Deep Research

Web search

Sources



NotebookLM allowed us to get the initial insights in minutes and spend the time going deeper. It helps my team collaborate from a single source, pooling notes and links, freeing up more of our research time for strategic thinking and brainstorming, allowing us to deliver compelling insights to our clients.”

**Parinda Gandevikar**

Senior Consultant,  
Deloitte Consulting LLP

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# Ideas In minutes



# challenge

Your product team has been tasked with designing a new rock climbing shoe that will help prevent injuries. You spend weeks brainstorming ideas. Months refining them, before going back to the drawing board to come up with some more. You're getting nowhere.



# solution

You put the task to a team of AI agents. They come up with 1,000 ideas, then they collaboratively rank the best ones. The output is a list of the best ideas—along with all strengths and weaknesses—to take to your leadership team.

02

03





ideate, and innovate. It uses hundreds of AI agents to generate and refine innovative ideas; and then self-scores through multi-angle evaluation to arrive at the best solution.

+

Generate novel ideas for improving the developer experience of coding with AI.

+

Identify and develop high-potential strategic partnerships that drive mutual growth and create synergistic value.

+ 🔍 Deep Research 🌐 Web search 📄 Sources





insights. We're particularly excited by Google AgentSpace's ability to blend various data sources, quotes and deliver personalized, contextually relevant answers. By unifying our knowledge resources, providing AI-powered assistance and automating workflows, we strive towards reduced time spent searching for information, faster decision-making, and improved collaboration and productivity."

### Alan Triggs

Chief Digital Officer,  
Nokia

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# anything



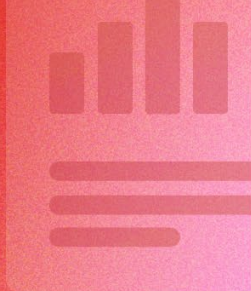
# challenge

Your colleagues have been talking about something you are unfamiliar with. You quickly get the sense that this thing is going to be big—and you need to get up to speed, fast. The problem is, it's detailed. There are many reports, datasheets, and opinion pieces circulating. And you don't have a full day spare to go through it all.



# solution

You ask an AI agent for a concise summary of all the documents and information available on the topic. It provides a comprehensive report of all findings, which you read before joining the conversation.



and Agentspace with a pre-built **Deep Research agent**, powered by Gemini's multimodal intelligence. With a single prompt, the agent can create and execute custom research plans, and use reasoning, planning, and search capabilities to discover information from hundreds of sources across the web, and access-controlled data within the enterprise. It then intelligently synthesizes its findings into a comprehensive report.

Ideal for market research and other cases where a deeper understanding of a topic is required, it helps anyone in the workforce grasp the key takeaways and accelerate decision-making.



+

Research recent product launches by competitors in the [product category] space.

+

Research recent interest rate changes by the Federal Reserve and summarize their potential impact on the technology sector.

+



Deep Research



Web search



Sources



for collaboration.... We are particularly excited to see how our early users are leveraging Google Agentspace for faster and more comprehensive analysis and engaging with content in new multimodal ways that reflect our vision of work as more relaxed and collaborative.”

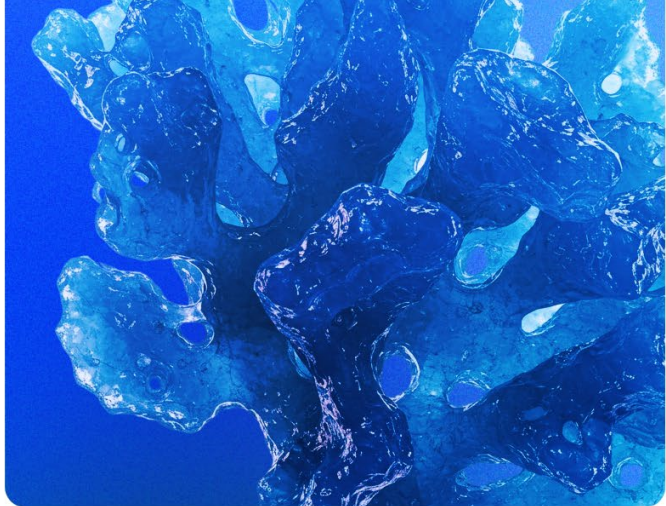
**Fabio Jabur**

Head of Data and AI,  
Banco BV

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# at scale with multi-agent AI





# challenge

You manage a busy call center. A major product launch has coincided with an unrelated, yet widespread issue, and your customer care team is being overwhelmed with calls. Employees are scrambling to find the information they need to answer customers' queries and get through the growing queue of inbound calls.



# solution

Conversational AI agents can scale your customer service operations across all your channels by automatically responding to incoming queries in multiple languages and routing more complex cases, leading to faster response times, a higher volume of case resolutions, and more satisfied customers. Other AI agents proactively assist call center employees by providing real-time coaching and recommended responses to best address the customer's needs, and reducing workload by automatically generating call summaries. And finally, AI agents analyze all of the customer interactions and in a central dashboard provide call center managers with data-driven insights to boost operational efficiency, improve customer service performance, and create better customer experiences.

Customer Engagement Suite with Google AI is a multi-agent application that helps deliver exceptional customer experiences across every touchpoint with Conversational Agents, Agent Assist, and Conversational Insights. Customers can self-serve through voice or chat; customer service representatives can resolve issues faster and receive more targeted training; and managers can tap into rich insights on trends and performance.

Behind the scenes, users with little to no technical experience can easily build conversational agents for a variety of use cases in a no-code or low-code environment. Agentspace expands these capabilities by connecting agents to third-party agents, applications, and enterprise data.



ServiceNow

and more

#### Connectors to telephony, UCaaS, and CCaaS systems:

AVAYA



GENESYS

VONAGE

dialpad

NiCE

Mitel

twilio

Five9



suite, powered by Gemini, allows us to deliver faster, more personalized service, significantly reducing call times and empowering our team to focus on what truly matters: our customers. This human in the loop technology is not just about ease and simplicity; it's about building lasting loyalty through exceptional experiences.”

### **Sampath Sowmyanarayan**

Chief Executive Officer,  
Verizon Consumer Group

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# and conversion rates



# challenge

You've been asked to plan the next quarter's marketing campaign. The goal is to boost engagement and conversion rates by personalizing messages, product recommendations, and offers based on customer data. Yet, to enable this, you need to dig into past campaigns, pulling data from various internal and external sources, not to mention create the content.



# solution



You use an AI agent to plan, produce, and optimize a high-engagement, high-conversion marketing campaign. Your agent finds all your best-performing ad campaigns and audience insights by connecting to your critical marketing systems. It analyzes customer data, creating insights about your target audience's preferences, and uses those insights to generate high-quality, tailored content in your brand voice.

content generation. It helps accelerate analysis and uncovers deeper insights beyond surface-level metrics, while freeing up marketers' time for strategic analysis.

Connectable apps:

**servicenow**

**Dropbox**

**Adobe**

**box**



Google Ads



Google Trends

**YouTube**

Summarize the key performance highlights and lowlights from the attached [campaign name] end-of-campaign report.

+

Give me some creative concepts for a visual ad campaign targeting [target audience segment] focused on [key benefit].

+

Deep Research



Web search



Sources





from across organizations and provides our users with assistance that is incredibly promising. Google Agentspace could become an essential enabler for product designers, marketers, and researchers, enabling them to make faster, more informed decisions and ultimately delivering even better experiences for customers. Our cross-functional teams—from data to workplace tools—see it as a great promise to meet our needs.”

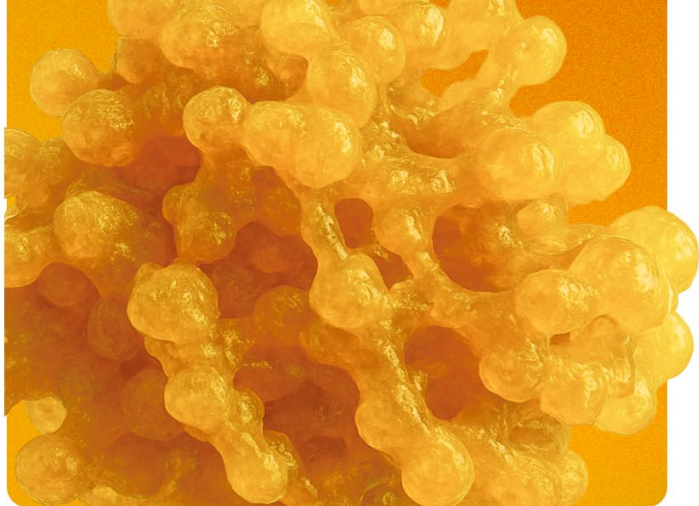
### Youssef Bakkali

Group Product Manager,  
Decathlon

[Read more](#) →







# cycle



# challenge

In today's hyper-connected world, customer inquiries come from all angles. The web. Email. Your call center. Social media. The list goes on. For busy sales professionals, staying on top of all these requests is hard work. Not to mention keeping abreast of best practices in sales, and the latest customer research.


# solution


Sales teams can work smarter by getting AI agents to take on the gruntwork—like locating documents and sales playbooks other teams are using to engage new customers, and monitoring customer requests in connected systems. Agents can also provide analysis on the best path forward. This frees sales up to focus on what matters most: nurturing prospects and strengthening customer relationships.





It can help bring sales teams up to speed on new customer insights before important meetings. And it can automate tedious admin tasks like de-duping account names, to free up time to focus on nurturing client relationships.


Connectable apps:













Analyze the lead data and identify the ten most promising leads in [industry] based on the attached needs analysis notes.

+

Find and delete duplicate lead records in our CRM.

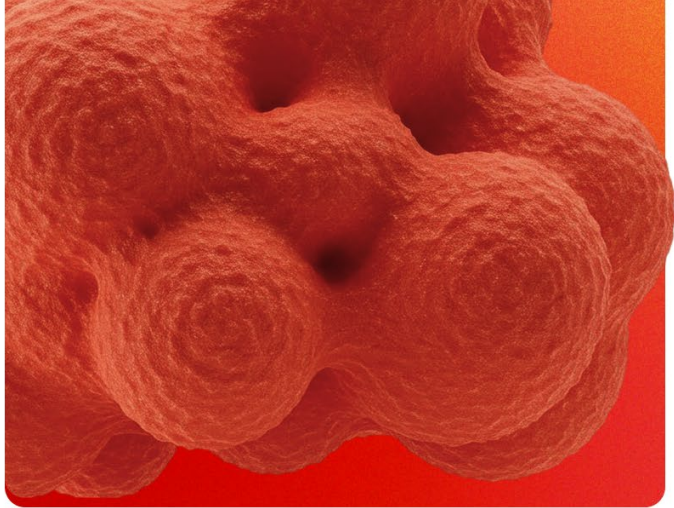
+ 🔍 Deep Research 🌐 Web search ⚙️ Sources

is leveraging knowledge agents in AgentSpace to develop deeper customer insights and prepare for impactful sales interactions.

[Read more](#) →



a prompt



# challenge

You've just written a significant amount of code for a new feature. During testing, you encounter a bug—the application crashes under specific, seemingly random conditions. The error message is vague and doesn't pinpoint the exact location of the problem. You now face the time-consuming task of stepping through the code, logs, and stack traces to find the problem. It's a slow and frustrating process.





# solution


Integrated into the developer's IDE or workflow, an AI agent could significantly streamline this debugging process using intelligent log analysis or pattern recognition. What's more, an agent could also identify bottlenecks in code by analyzing it against best practices; and find and reuse existing code and documentation, eliminating the need for redundant work. It all helps free up developers' time to focus on bigger picture tasks.


existing code and documentation, and automating engineering tasks like synthesizing bug reports from across your organization for efficient troubleshooting.


Connectable apps:



















Summarize the main responsibilities of the [microservice name] based on its documentation.

+

Generate boilerplate Python code for a function that reads data from a CSV file.

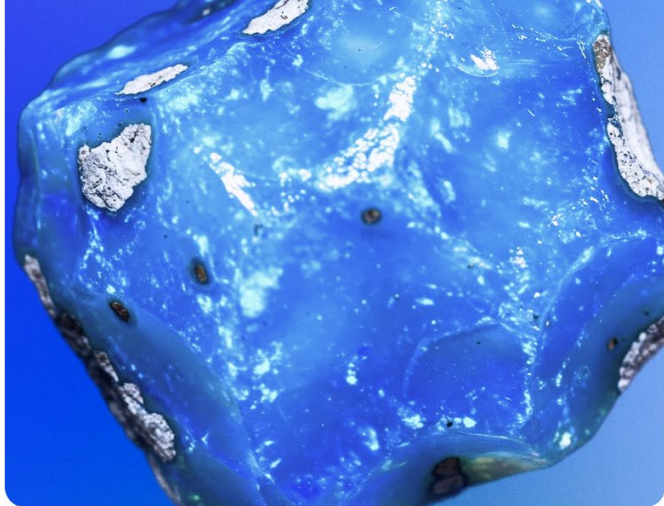
+ 🔍 Deep Research 🌐 Web search 📄 Sources



helps build persona-based AI agents  
on Google Cloud, contextualized  
with enterprise knowledge to  
accelerate software development.

[Read more](#) →





# and other link workflows



# challenge

You're tasked with onboarding six new hires this week. You need to prepare and distribute their contracts, tax documents, company policies, and IT access requests. You need to get forms signed. You need to coordinate access passes for the building and passwords for IT systems, and get them onto payroll. All this manual onboarding can be so time-consuming, there's no time left for a welcome cup of coffee and tour of the office.



# solution



AI agents can take care of administrative onboarding tasks, helping to deliver a smoother onboarding process for new hires—and freeing up HR's time to provide a more welcoming, personalized experience. Agents could also help HR in other ways. For example, a feedback agent could design and manage employee surveys, collating and analyzing the data to identify areas for improvement. Or a search agent could find and analyze HR trends and best practices from teams across the globe.

experiences. It empowers you to find policies and information in an instant. It helps you understand employee sentiment, survey results, attrition data, and training needs. It streamlines HR processes like recruitment and onboarding. And, ultimately, it helps you deliver a better experience to employees.

Connectable apps:

**servicenow**

**box**

**Dropbox**

**Adobe**

Based on questions asked in the HR helpdesk system this month, identify areas where employees seem to have the most confusion.

+

Create a personalized learning and development plan for a new hire who needs to learn about [topic]. Organize it by day and suggest relevant files.

+ 🔍 Deep Research 🌐 Web search 📄 Sources



workplace experience with UKG Bryte AI, a trusted conversational agent built with Google Cloud that enables HR administrators and people managers to request information about company policies, business insights, and more.

[Read more](#) →



# agent



# challenge

You've heard the buzz about how AI agents are enabling workers in your field to automate time-consuming, menial tasks. And you have a particular workflow in mind that's perfect for agentic AI. Problem is, you're tenth in line at the IT department's door, and don't want to wait for the tech team to build and deliver your bespoke agent.



# solution

No one knows the nuances of a job as well as the people who do that job. Empowering every employee with the ability to easily create their own agents—or adapt pre-built agents—to solve specific, job-related tasks will drive scalable adoption across the business.



Depending on your level of expertise and the type of agent you're after, you've got options for how to start building your own AI agents.

[Get step-by-step instructions for building no-code agents](#) →



**Agent Designer** is an easy, no-code interface for employees who want to create custom agents that are securely connected to your enterprise's data. Use the simple, chat-based interface, pre-built tools, and automated actions to design agents that specialize in your individual workflows and tasks.



Developers and engineers can then take that agent and build it out in **Vertex AI Agent Builder**, or start from scratch in building a new AI agent.

Agentspace supports the open Agent2Agent protocol, ensuring interoperability with not only data sources connected via Agentspace, but also agents built on other platforms.







build AI agents with Agentspace  
directly on their existing NetApp  
data—no data duplication required.

[Read more](#) →



The examples in this guide just scratch the surface of what's possible with AI agents. As leading enterprises around the world are already proving, next-gen AI agents are transforming everything from procurement and accounting, to engineering and customer support. Google AI has your AI agent strategy covered.

[Explore and get started today →](#)

From Conversational Agents for efficient customer support, to Idea Generation for an always-on thought partner, agents are embedded into Google products. And with AgentSpace, you can connect and access all of your agents, including those you custom build on Vertex.

As the ability to adopt and customize agents becomes more essential, we're ready to take this journey with you. Check out our companion piece for prompts to help business professionals get their team of AI agents up and running, based on popular workflows in HR, sales, marketing, finance, legal, and more.

[Get the guide →](#)