

Artificial intelligence in action: Driving growth, innovation, and efficiency

How 10 leading organizations are using generative AI to improve the customer experience, boost employee productivity, and optimize business processes in the agentic era



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Business in the age of generative AI

More organizations are moving generative artificial intelligence (gen AI) applications to production, seeing real business impact through increased innovation, productivity, and cost savings. Yet, while adoption is accelerating, businesses face challenges around delivering return on investment (ROI), ensuring trust, balancing costs with performance, and scaling beyond initial pilots.

And now, with the emergence of agentic AI, organizations are exploring how to leverage AI systems that can autonomously perform tasks and make decisions to further enhance their operations.

The good news: You don't have to reinvent the wheel. Companies are already overcoming these challenges and delivering value quickly with gen AI and agentic AI on Amazon Web Services (AWS).

This lookbook showcases how leading organizations across industries are using these breakthrough technologies to:

- Reinvent customer experiences
- Boost employee productivity
- Optimize business processes

≤30%

Businesses have moved 30% or fewer of their gen AI experiments into production¹



Harnessing the power of agentic AI

As gen AI evolves, we're entering a new era where AI systems can autonomously reason, plan, and complete complex tasks. Agentic AI represents the next frontier in AI innovation, with Gartner predicting that by 2028, a third of enterprise applications will incorporate agentic AI capabilities and 15 percent of work decisions will be made autonomously by these systems.² Unlike traditional AI that simply responds to prompts, agentic AI can independently execute multistep processes, evaluate outcomes, and adjust strategies to achieve defined goals.

While enterprise adoption of true agentic AI is in its nascent stages, with most businesses running preliminary tests and proof of concept initiatives, AWS is already helping customers be some of the first to demonstrate real business value with agentic AI across three key areas: workplace productivity, workflow automation, and innovation and research.



SYNGENTA



AMAZON ALEXA



What are AI agents?

Autonomous software systems that leverage AI to reason, plan, and complete tasks on behalf of humans or systems—like compiling research or managing enterprise applications. They don't only answer questions; they solve problems through a process of exploration and refinement.

Revolutionizing global farming with agentic AI

[Syngenta](#), a global leader in agricultural innovation, is focused on developing technologies and farming practices that empower farmers so they can make the transformation required to feed the world's population while preserving our planet.

Opportunity

The agricultural sector faces the complex task of optimizing crop yields while ensuring sustainability and profitability. Farmers and agronomic advisors must consider a multitude of factors, including weather patterns, soil conditions, crop growth stages, and potential pest and disease threats. In the past, analyzing these variables required extensive manual effort and expertise. Syngenta recognized the need for a more efficient, data-driven approach to support decision making in crop management.

Solution

Using [Amazon Bedrock Agents](#), Syngenta developed Cropwise AI, a sophisticated multi-agent system that integrates various data sources and AI capabilities to transform agricultural decision making. The system combines specialized AI agents for data aggregation, recommendation generation, and natural language interaction to deliver personalized crop management strategies to farmers. With Cropwise AI, Syngenta has delivered up to a 5 percent increase in crop yields for growers while promoting sustainable farming practices through data-driven recommendations and optimized resource utilization.

“Agricultural innovation leader Syngenta is using Amazon Bedrock Agents as part of its Cropwise AI solution, which gives growers deep insights to help them optimize crop yields, improve sustainability, and drive profitability.”

Feroz Sheikh, Chief Information & Digital Officer, Syngenta Group



RESULTS

Up to 5%
higher crop yields



AWS SERVICES USED

[Amazon Bedrock](#)

Amazon transforms Alexa into a personal artificial intelligence assistant

Amazon is guided by four principles: customer obsession rather than competitor focus, passion for invention, commitment to operational excellence, and long-term thinking. Amazon Customer Reviews, 1-Click shopping, personalized recommendations, Amazon Prime, Fulfillment by Amazon (FBA), Amazon Web Services (AWS), Kindle Direct Publishing, Amazon Career Choice, Amazon Fire Tablets, Amazon Fire TV, Amazon Echo, Amazon Alexa, Amazon Studios, and The Climate Pledge are all pioneered by Amazon.

Opportunity

With 600 million Alexa devices now out in the world, the latest advancements in gen AI unlocked new possibilities to reimagine the experience. Amazon saw an opportunity to go beyond traditional AI chatbots to create something fundamentally different—a next-generation personal AI assistant that would be more conversational, smarter, and capable of getting more things done for customers.

Solution

Amazon leveraged [Amazon Bedrock](#) and [Amazon Nova](#) to create [Alexa+](#)—a next-generation AI assistant that combines conversational abilities with autonomous task execution. The solution integrates state-of-the-art language models with practical task automation capabilities to handle complex requests and proactively manage daily activities. Built on the secure infrastructure of AWS, Alexa+ brings world-class privacy and security protection to your everyday interactions.

“Rebuilt from the ground up, this new version of Alexa uses a state-of-the-art architecture that automatically connects a variety of large language models (LLMs), agentic capabilities, services, and devices at scale.”

Amazon Staff



RESULTS

Alexa+

is much more conversational, smarter, personalized, and capable of getting more things done for customers



AWS SERVICES USED

[Amazon Bedrock](#)

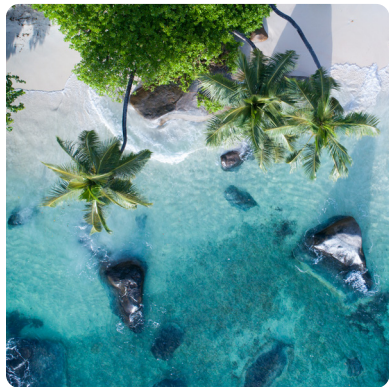
[Amazon Nova](#)

Improving the customer experience

Gen AI creates exciting possibilities that allow businesses to elevate customer experiences to new heights. Organizations can use gen AI to better understand individual preferences and tailor interactions accordingly. From personalized marketing communications and digital experiences to dynamically generated product descriptions and recommendations, gen AI helps ensure each customer receives hyper-personalized content and service aligned to their needs.

Intelligent chatbots and virtual assistants powered by gen AI can provide fast and accurate resolutions, while human agents benefit from insightful customer data, enabling more efficient and satisfactory service. Additionally, gen AI allows businesses to create highly personalized content at an unprecedented scale, ensuring a consistent, relevant experience across all touch points.

By embracing gen AI, companies can unlock new growth opportunities and forge deeper connections with customers through tailored journeys that drive satisfaction and loyalty.



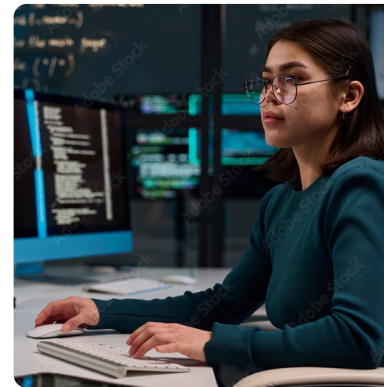
LONELY PLANET



DOORDASH



FERRARI



TRELLIX



Redefining travel planning for adventure seekers worldwide

[Lonely Planet](#), the worldwide standard for travel guidebooks, covers the United States and most countries in Europe, Asia, and Africa. The Lonely Planet series offers comprehensive, no-nonsense facts, low- and mid-budget listings, and helpful on-the-ground travel tips.

Opportunity

Lonely Planet's adventure-seeking consumers had long requested more itineraries and more varied experiences from its respected travel editors. By embracing the power of gen AI on AWS, Lonely Planet was able to create and scale new digital offerings designed to personalize travel planning and experiences for its travel-savvy customer base.

Solution

Lonely Planet leverages gen AI to reimagine the travel experience by delivering individually curated itineraries to its audience. Using [Amazon Bedrock](#), the company translated manually published travel content from 150 million guidebooks, 270,000 mappable destinations, and 750 local experts into an evolving technology platform in only seven months. With the broad model choice of Amazon Bedrock, the Lonely Planet team was able to test and select the best model for its use case—reducing gen AI workload costs by 80 percent compared to other models and services.

“We chose [Amazon] Bedrock and the tools associated with AWS because we wanted optionality with regard to what models we were able to use, and we also wanted security, resiliency, and compliance.”

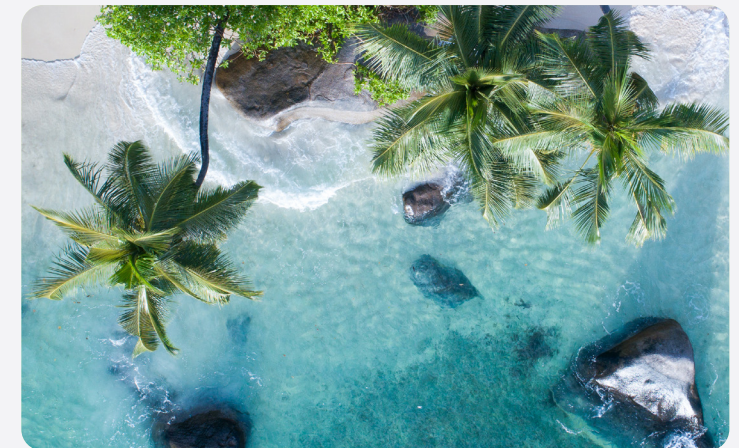
[Chris Whyde](#), SVP, Engineering & Data Science, RV Travel, Lonely Planet



RESULTS

80%

reduction in gen AI workload costs with Amazon Bedrock



AWS SERVICES USED

[Amazon Bedrock](#)

Building a generative AI contact center solution to fuel customer service excellence

[DoorDash](#) is a technology company that connects consumers with their favorite local businesses in more than 30 countries across the globe. Founded in 2013, DoorDash builds products and services to help businesses innovate, grow, and reach more customers.

Opportunity

DoorDash wanted to harness the power of gen AI to enhance its self-service offerings and elevate its user experience. The company collaborated with AWS through the [AWS Generative AI Innovation Center](#), which pairs companies with AWS experts to implement gen AI solutions.

Solution

Working with AWS, DoorDash built a fully voice-operated self-service contact center solution with [Amazon Connect](#), [Amazon Bedrock](#), and [Amazon Lex](#). Moving from startup to testing in only two months, the real-world solution fields hundreds of thousands of calls per day.

“Using AWS, we’ve built a solution that gives Dashers reliable access to the information they need, when they need it.”

Chaitanya Hari, Contact Center Product Lead, DoorDash



RESULTS

50%

reduction in gen AI application
development time using Amazon Bedrock



AWS SERVICES USED

[Amazon Bedrock](#)

[Amazon Connect](#)

[Amazon Lex](#)

Redefining automotive luxury with generative AI

Italian luxury sports car manufacturer [Ferrari](#) has sustained a globally recognized legacy rooted in a tradition of luxury and innovation for decades. In 2021, the company selected AWS as its preferred cloud provider to advance its compute, analytics, and storage capabilities.

Opportunity

Ferrari is focused on cultivating its loyal fanbase through unique digital experiences on the web and on its mobile applications. To continue to deliver the best possible experiences to customers and dealers, Ferrari has tapped into the power of gen AI on AWS.

Solution

Ferrari is using the broad model selection of [Amazon Bedrock](#) to apply gen AI to several use cases, from accelerating the vehicle design process to providing personalized services to its customers. Using large language models (LLMs) in Amazon Bedrock, Ferrari developed a car configurator to make it easier and faster for customers to personalize their car, which has increased sales leads and reduced vehicle configuration times by 20 percent. Ferrari also fine-tuned LLMs—including [Amazon Titan](#), [Claude 3](#), and [Llama](#)—on its own internal documentation to create a gen AI chatbot that helped their sales professionals and technicians enhance the after-sales experience.

“Amazon Bedrock has simplified our approach. We can connect to a single layer of APIs to quickly test, benchmark, and deploy different models.”

Mauro Coletto, Head of Business Analytics & AI, Ferrari

Ferrari

RESULTS

Millions

of hyper-personalized recommendations



AWS SERVICES USED

[Amazon Bedrock](#)

[Amazon Titan](#)

Trellix transforms security operations, reducing 80-hour process to 30 seconds

[Trellix](#), a leading company delivering cybersecurity's broadest AI-powered platform to over 53,000 customers worldwide, emerged in 2022 from the merger of McAfee Enterprise and FireEye. The company's comprehensive, open, and native AI-powered security platform helps organizations build operational resilience against advanced threats.

Opportunity

Trellix faced a critical challenge: their customers were overwhelmed, receiving an average of 1,000 daily security alerts, and didn't have the resources to analyze them effectively. Rather than creating yet another chatbot requiring constant human guidance, Trellix turned to AWS to cost-effectively develop an autonomous solution that intelligently processes these alerts, reducing manual work and enabling security teams to focus on strategic priorities.

Solution

Using [Amazon Bedrock](#), Trellix built their AI-powered threat detection and response product Trellix Wise with a sophisticated multi-model approach. With Amazon Bedrock's industry leading model choice, Trellix used Anthropic's Claude Sonnet for complex analysis with [Amazon Nova](#) models for coding and simple decisions, using innovative techniques like model distillation and agentic cooperation to maximize model performance while optimizing costs. Now, when Trellix customers arrive at work, they find AI-powered analysis ready for every security alert from the previous day—a task that once consumed 80 person-hours now completed in only 30 seconds.

"Amazon Bedrock makes it easy to evaluate new models and approaches as they become available. Using Amazon Nova Micro alongside Anthropic's Claude Sonnet allows us to deliver the best coverage to our customers, fast, and at the best operating cost."

Martin Holste, Senior Director, Engineering, Trellix



Trellix

RESULTS

100x

lower cost with Amazon Nova Micro



AWS SERVICES USED

[Amazon Bedrock](#)

[Amazon Nova Lite](#)

[Amazon Nova Micro](#)

SUCCESS STORIES

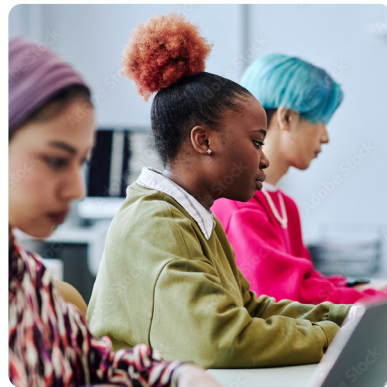
Boosting employee productivity

Gen AI can boost employee productivity significantly by automating repetitive tasks, generating content, and uncovering data-driven insights. Adoption of the technology has the potential to automate nearly 30 percent of the total hours worked across the entire US economy by 2030.³ It can draft documents, reports, emails, and even code, freeing up employees' time for higher-value work. For example, AI-powered virtual assistants can handle routine queries, schedule meetings, and manage workflows while streamlining collaboration within teams. Gen AI technology can also analyze data, identify patterns, and provide insights, enabling employees to make more informed decisions.

By offloading common tasks to gen AI, employees can focus on strategic, creative work that drives real innovation. Read on to discover how AWS customers Bayer Crop Science and Amazon are leveraging gen AI to achieve transformative results.



BAYER CROP SCIENCE →



AMAZON →

Empowering data scientists to innovate faster

[Bayer Crop Science](#), a division of the multinational Bayer AG, sees gen AI as a key catalyst for next-level productivity. The company is enabling thousands of its data scientists and engineers to innovate agricultural solutions for farmers across the globe.

Opportunity

From planning to harvest, Bayer Crop Science strives to offer products and information that help farm operations reach their maximum potential. As modern agriculture becomes increasingly complex, Bayer is focused on leveraging gen AI to deliver gen AI-powered capabilities for its customers and making it easier for data scientists to develop innovative solutions faster that improve farm performance.

Solution

Enabled by gen AI on AWS, the Bayer Crop Science division is boosting employee productivity as it transforms software development. By leveraging [Amazon SageMaker Studio](#), its teams can rapidly build, deploy, and train machine learning (ML) models for various use cases to bring data solutions to market faster. They are also using [Amazon Bedrock](#) to power gen AI capabilities that reduce the support burden of complex, highly orchestrated workloads. When something fails, Amazon Bedrock aids in diagnosing issues with less engineering support than previously required. The Bayer Crop Science division recognizes the importance of empowering its platform builders to focus on tasks that provide differentiated value. By implementing [Amazon Q Business](#), its developers can generate documentation and access operating information more efficiently, reducing onboarding time by up to 70 percent. And with [Amazon Q Developer](#), they can automate coding tasks, helping the company improve developer productivity by up to 30 percent.

“The technologies that are being created by AWS help accelerate and improve our company’s ability to produce food and fuel for a growing population. Our focus is moving rapidly toward leveraging gen AI to take us into the future.”

Will McQueen, VP, Head of Crop Science Data Assets & Analytics, Bayer Crop Science



Crop Science

RESULTS

Up to a

30%

increase in developer productivity
with Amazon Q Developer



AWS SERVICES USED

[Amazon Bedrock](#)

[Amazon SageMaker Studio](#)

[Amazon Q Business](#)

[Amazon Q Developer](#)

Powering the future of software development

Amazon is guided by four principles: customer obsession rather than competitor focus, passion for invention, commitment to operational excellence, and long-term thinking. Amazon Customer Reviews, 1-Click shopping, personalized recommendations, Amazon Prime, Fulfillment by Amazon (FBA), Amazon Web Services (AWS), Kindle Direct Publishing, Amazon Career Choice, Fire Tablets, Fire TV, Amazon Echo, Amazon Alexa, Amazon Studios, and The Climate Pledge are all pioneered by Amazon.

Opportunity

Amazon was looking to streamline its software development lifecycle, particularly the tedious but critical task of updating foundational software like transitioning applications to newer versions of Java. This manual process often gets deprioritized in favor of more exciting feature work, leading to delays and technical debt.

Solution

To address this challenge, Amazon integrated its own gen AI assistant, [Amazon Q Developer](#), into its internal systems. Amazon Q Developer helps developers and IT professionals (IT pros) with all of their tasks across the software development lifecycle—from coding, testing, and upgrading to troubleshooting, performing security scanning and fixes, optimizing AWS resources, and creating data engineering pipelines. By using Amazon Q Developer, Amazon reduced the time required to upgrade an application to Java 17, reducing it from 50 developer days to only a few hours. This resulted in the equivalent of 4,500 developer-years of work saved. Additionally, 79 percent of the AI-generated code reviews were shipped without any further changes, showcasing the accuracy and reliability of Amazon Q Developer. Beyond time savings, the upgrades also enhanced security and reduced infrastructure costs, providing an estimated \$260 million in annualized efficiency gains for the company.

“...large-scale enterprises can gain significant efficiencies in foundational software hygiene work by leveraging Amazon Q. It’s been a game changer for us...”

[Andy Jassy](#), CEO, Amazon



RESULTS

4,500

developer-years of work saved



AWS SERVICES USED

[Amazon Q Developer](#)

SUCCESS STORIES

Optimizing business processes

Process optimization is emerging as a powerful use case where gen AI can deliver tangible value for companies across industries. Gen AI can automate business processes by analyzing vast amounts of data and generating insights to optimize operations. It can identify patterns and make predictions, enabling businesses to streamline workflows, improve efficiency, and identify areas for improvement, which is helping companies unlock unprecedented levels of productivity, agility, and data-driven decision making.

For example, gen AI can help extract important data from documents, such as invoices, contracts, or forms. This extracted data can then be used to populate databases, automate data entry processes, or feed into other business applications, enabling organizations to streamline workflows and drive greater process optimization.



BRAINBOX AI



NOVO NORDISK



PERPLEXITY



Revolutionizing green building with generative AI

BrainBox AI is a leader in HVAC technology innovations, revolutionizing the way buildings consume energy. Since its launch in 2019, the organization has steadily built the data infrastructure needed for autonomous building optimization.

Opportunity

Managers of large commercial buildings worldwide are facing hundreds of thousands of data points daily—including temperature readings, routine maintenance notifications, and alerts for sudden equipment issues—and are struggling to keep up. This constant degradation in building operations has overburdened managers, increased costs and complexity, and necessitated labor-intensive retuning by engineers and technicians. BrainBox AI recognized this pain point as an opportunity to radically streamline its smart building maintenance and enhance its cornerstone AI solution for HVAC systems with gen AI.

Solution

BrainBox AI leveraged [Amazon Bedrock](#) to create a first-of-its-kind gen AI–powered virtual building assistant named ARIA (Artificial Responsive Intelligent Assistant). The Amazon Bedrock suite of foundation models (FMs) empowers the BrainBox AI assistant with a robust gen AI backend that enables natural conversations. Combined with the company’s existing AI for HVAC-level optimization, ARIA added unparalleled efficiency and insights. The ability to combine multiple advanced models through Amazon Bedrock allowed ARIA to deliver highly accurate responses by synthesizing outputs across different models. When combined with BrainBox AI for an HVAC solution, ARIA transformed building optimization—cutting energy usage by up to 25 percent, reducing emissions by as much as 40 percent, and drastically improving operational efficiency.

“Working with AWS is really the key advantage that we have...You’ve got all these companies pushing new models, which are far better than the previous version every few months. And with Amazon Bedrock, you don’t have to make this decision because it always provides access to new models as they are released.”

Jean-Simon Venne, Co-Founder & CTO, BrainBox AI



BRAINBOX AI

RESULTS

Up to a

40%

reduction in building emissions
using tools powered by gen AI



AWS SERVICES USED

[Amazon Bedrock](#)

Novo Nordisk slashed clinical documentation time by 90% to accelerate healthcare innovation

[Novo Nordisk](#) is a multinational pharmaceutical company based in Denmark. Founded in 1923, the organization makes and markets pharmaceutical products with a focus on obesity, diabetes, and rare blood disorders.

Opportunity

Novo Nordisk sought to implement a gen AI solution that reduced document production time and resource requirements while maintaining security and compliance standards in pharmaceutical documentation.

Solution

Novo Nordisk leveraged a powerful combination of AWS AI tools and [competency partners](#), like [Anthropic](#) and [MongoDB](#) to accelerate their gen AI journey. MongoDB's robust data storage and vector search capabilities enable efficient data management, while [Anthropic's Claude 3.5](#) model on [Amazon Bedrock](#) excels in content generation and structuring data.

"We are now able to produce documents a lot faster as we are 90% faster now, which means that we are going from weeks to minutes in document production time."

Louise Skov, Head of Content Utilization, Novo Nordisk



RESULTS

90%

reduction in document production time



AWS SERVICES USED

[Amazon Bedrock](#)

Perplexity speeds artificial intelligence development to reinvent knowledge discovery

[Perplexity](#), a company that built one of the world's first conversational answer engines, is using the power of gen AI to help users find relevant knowledge. Approximately 10 million monthly active users rely on Perplexity to learn new concepts, solve challenges, and find answers.

Opportunity

Faced with the challenge of optimizing its models for accuracy and precision, Perplexity needed a robust solution capable of handling its computational requirements. With a vision to elevate the user experience, Perplexity has turned to AWS.

Solution

Using advanced ML infrastructure, training libraries, and inference tools from AWS, Perplexity gained the flexibility, performance, and efficiency required to serve a global user base at scale. And with [Amazon SageMaker HyperPod](#), they were able to scale model development and transfer data among different GPUs much faster, reducing model training time by up to 40 percent. Based on this success, Perplexity is now experimenting with AWS Trainium to further improve training throughput. To expand its knowledge base and provide more accurate answers for its users, Perplexity has also adopted [Amazon Bedrock](#), a fully managed service that offers a choice of high-performing FMs from leading AI companies with a single API.

"On AWS, the power is in the hands of the customer. There are no requirements regarding which services you need to use."

Aravind Srinivas CEO & Co-Founder, Perplexity



RESULTS

Reduced model training time by up to

40%



AWS SERVICES USED

[Amazon SageMaker Hyperpod](#)

[Amazon Bedrock](#)

Fuel your gen AI breakthroughs with AWS

The future of business is being shaped by AI, and AWS meets you wherever you are on your journey. Whether you want to build custom AI solutions, deploy pre-built applications, or partner with experts, AWS provides the flexibility to choose your path while maintaining control of your data and costs. Join the hundreds of thousands of AWS customers using our comprehensive AI tools and services to innovate continuously, deliver exceptional customer experiences, and drive sustained growth—all while maintaining the highest levels of trust, privacy, and security.

AWS offers you the freedom to invent, ability to maximize value, and AI you can trust.

Start driving business value with gen AI →

→ Freedom to invent

Innovate without constraints. Our comprehensive AI portfolio gives you the most choice and flexibility, helping to ensure you can quickly build transformative experiences.

→ Maximize value

AI innovation shouldn't come at the expense of your bottom line. AWS gives you industry-leading tools that let you pursue your AI vision without letting costs hold you back.

→ AI you can trust

AI starts with trust. AWS helps secure your AI future with enterprise-proven protection and reliability—trusted by millions of customers worldwide.

