

Achieving tangible business results with generative AI

How 9 leading organizations are improving the customer experience, boosting employee productivity, and optimizing business processes



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Business in the age of generative AI

Generative artificial intelligence (gen AI) has moved beyond the hype and is starting to transform organizations of all sizes. Yet, while adoption is accelerating, questions remain. Business leaders wonder how to drive value without putting their companies at risk. Technical leaders have questions about how to execute on the gen AI use cases they're being asked to implement.

The good news is that you don't have to reinvent the wheel. Companies are already maximizing the business value of gen AI on Amazon Web Services (AWS).

To help you on your journey, we've collected stories that demonstrate how leading organizations are using this breakthrough technology to fuel innovation and deliver value quickly. These examples showcase the innovative ways companies across industries are leveraging gen AI on AWS to reinvent customer experiences, boost employee productivity, and optimize business processes.

≤30%

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

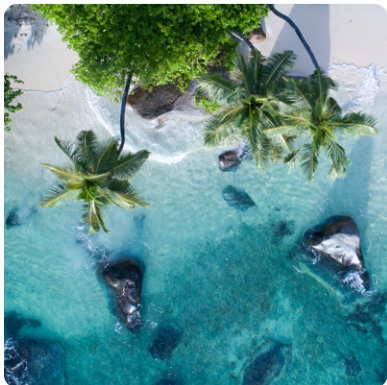


Improving the customer experience

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 ensures 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



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

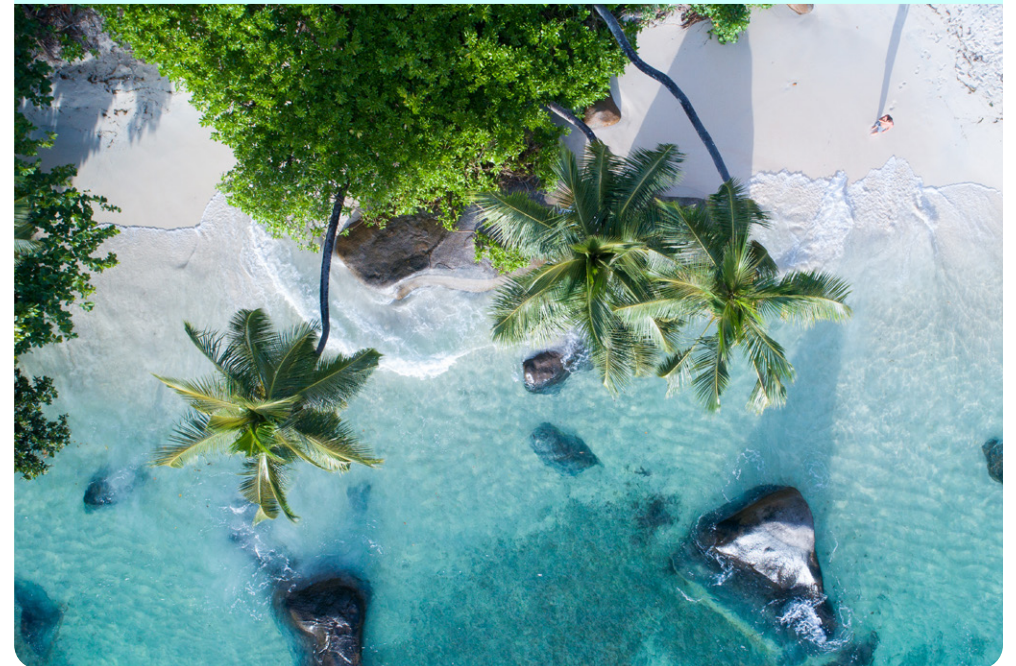
Lonely Planet leverages gen AI to reimagine the travel experience by delivering individually curated itineraries to its audience. Using **Amazon Bedrock**, the company translated manually published travel content from 150 million guidebooks, 270,000 mappable destinations, and 750 local experts into an 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
- 60% reduction in overall cloud spend by migrating to AWS
- 50 years of travel book recommendations delivered to users' fingertips in seconds



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 just 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

- 100,000s of calls fielded per day fielded by gen AI solution
- 50% reduction in response latency
- 50% reduction in gen AI application development time using Amazon Bedrock



Redefining automotive luxury with generative AI

Italian luxury sports car manufacturer [Ferrari](#) formed 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

Results

- 20% faster car configurations
- 60% faster vehicle simulations
- Millions of hyper-personalized recommendations



Solutions to improve the customer experience

Chatbots and virtual assistants

Amazon Connect
Amazon Lex
Amazon Polly

Agent assist and conversational analytics

Amazon Connect
Amazon Transcribe Call Analytics

Hyper-personalization

Amazon Bedrock
Amazon Personalize

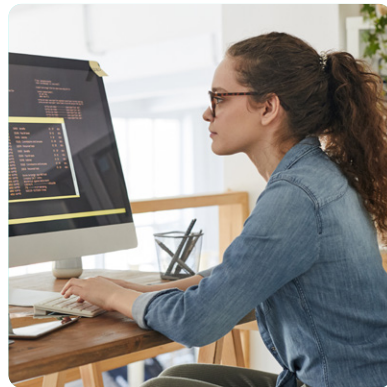
Boosting employee productivity

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 2030.² 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, Amazon, and Smartsheet are leveraging gen AI to achieve transformative results.



BAYER CROP SCIENCE →



AMAZON →



SMARTSHEET →

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 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

Results

- Up to a 30% increase in developer productivity with Amazon Q Developer
- Up to a 70% reduction in employee onboarding time with Amazon Q Business



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.

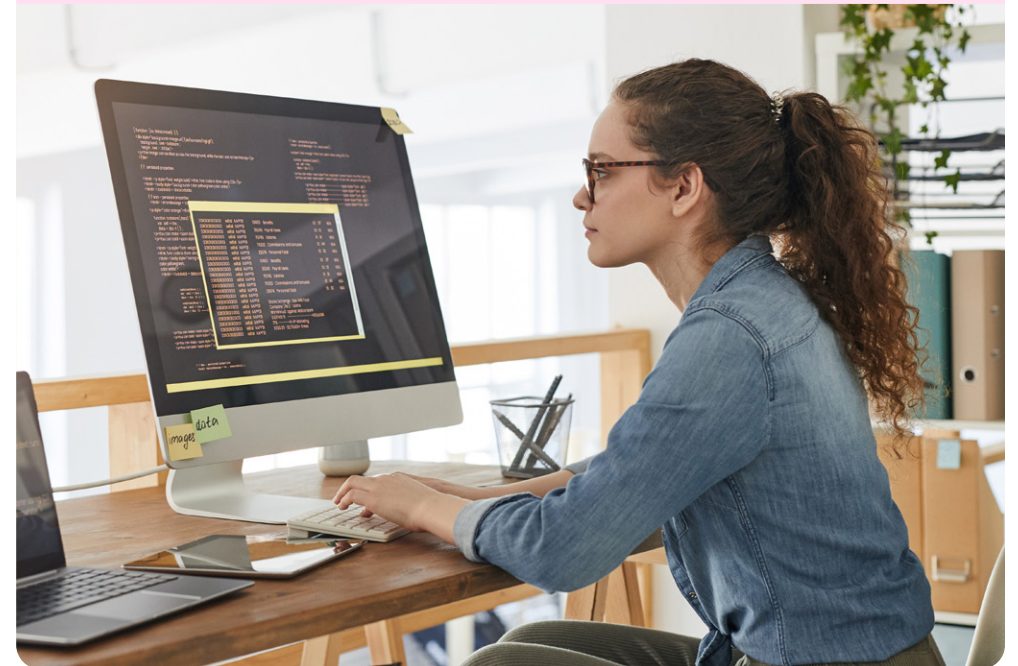
“...Large-scale enterprises can gain significant efficiencies in foundational software hygiene work by leveraging Amazon Q. It’s been a game changer for us...”

Andy Jassy, CEO, Amazon



Results

- 4,500 developer-years of work saved
- 79% of AI-generated code reviews shipped without changes
- \$260 million in annualized efficiency gains



Informing thousands of employees with instant answers

Smartsheet is a modern enterprise work management platform trusted by millions of people at companies across the globe, including approximately 85 percent of the 2023 Fortune 500 companies.³ A category pioneer and market leader, Smartsheet delivers powerful solutions that are fueling performance and driving the next wave of innovation.

Opportunity

Smartsheet wanted to use gen AI to streamline knowledge management and accelerate employee productivity in the cloud. Its employees were spending too much time searching for information spread across public help documents, training courses, and hundreds of employee Slack channels.

Solution

The company turned to **Amazon Q Business**, a gen AI-powered assistant, to consolidate its organizational knowledge into a single AI engine that gave its workforce immediate answers through natural language queries. In just weeks and without writing a single line of code, Smartsheet embedded Amazon Q Business in the company's Slack app to help its more than 3,300 global employees get answers to questions without having to know where the information lived organizationally. Additionally, Smartsheet's engineering teams used Amazon Q Business to summarize incident status, identify action items, access API documentation, and troubleshoot technical issues—all so they could focus on delivering exceptional products to customers.

"We have consolidated our organizational knowledge into a single AI engine to give our workforce immediate answers, significantly boosting employee productivity."

Bani Bedi, SVP, Corporate Development & Strategy, Smartsheet

Results

- Streamlined access to insights reduces time spent searching across multiple resources
- Improved technical efficiency allows engineering teams to summarize incident status, identify action items, access API documentation, and rapidly troubleshoot technical issues
- Greater employee focus on high-value work frees workers to innovate on behalf of customers and enhance customer relationships



Solutions to boost employee productivity

Coding
assistant

[Amazon Q Developer](#)

Content
discovery

[Amazon Q Business](#)

Content
creation

[Amazon Bedrock](#)
[Amazon Q Business](#)

Conversational
business
intelligence (BI)

[Amazon Q in QuickSight](#)

Text
summarization

[Amazon Bedrock](#)
[Amazon Q Business](#)

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



NASDAQ



EXSCIENTIA



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 and CTO, BrainBox AI

Results

- Up to a 40% reduction in building emissions using tools powered by gen AI
- Up to a 25% energy savings by combining ARIA and BrainBox AI for HVAC
- 98% accuracy in assisted responses (and on track to eliminate hallucinations)



Fueling innovation in the financial sector

Nasdaq is a leading global technology company serving corporate clients, investment managers, banks, brokers, and exchange operators as they navigate and interact with the global capital markets and the broader financial system.

Opportunity

Nasdaq's customers faced new requirements to report on the impact of their environmental, social, and governance (ESG) policies, which necessitated the analysis of a large volume of unstructured data and documents. Nasdaq wanted to use gen AI to help customers meet these challenges.

Solution

To help customers streamline ESG reporting, Nasdaq built a serverless AI-powered solution called Nasdaq Sustainable Lens using [Amazon Bedrock](#) and [AWS Lambda](#). Nasdaq Sustainable Lens analyzes tens of thousands of documents disclosed by companies, replacing much of the manual effort previously needed. With Sustainable Lens, customers can significantly reduce the manual effort required to analyze sustainability and ESG disclosures. They can quickly benchmark against competitors, understand their alignment with regulations or frameworks, and monitor sustainability and ESG trends in the wider market.

"For Nasdaq, building on AWS means flexibility, scalability, and speed to market."

James Tickner, Head of Product, IR Intelligence, Nasdaq

Results

- Reduces manual effort by automating the analysis of documents
- Allows rapid benchmarking of ESG performance against competitors
- Helps customers understand their alignment with ESG regulations or frameworks
- Provides market-trend monitoring to track sustainability and ESG trends on demand



Reimagining drug discovery with generative AI

Exscientia pairs the best human science and technology expertise with the capacity of gen AI, ML, and automation to discover high-quality drugs faster, enabling people to live healthier and more productive lives.

Opportunity

Conventional drug discovery methods can take up to 15 years and cost over \$2 billion, with an average failure rate of 90–96 percent. Exscientia uses gen AI in the design-make-test-learn (DMTL) cycle to discover patient therapies quickly and relatively inexpensively.

Solution

Exscientia's innovative DMTL solution incorporates in silico design—leveraging gen AI algorithms to create compounds in the cloud—and automated robots that assemble drug candidates in the lab. By predicting the molecular features of a safe and effective drug in silico, Exscientia can minimize the number of costly experiments it takes to develop new offerings. Built in collaboration with the AWS team using [Amazon Bedrock](#), Exscientia's platform is optimized for unprecedented speed. By accelerating these processes and repeating many DMTL learning loops, the company is able to improve its drug candidates with every iteration.

“Using AWS, we reduce bottlenecks and accelerate the pipeline.”

David Hallett, Interim CEO & Chief Scientific Officer, Exscientia

Results

- Accelerated drug design by up to 70%
- Decreased capital costs by 80%



Solutions to optimize business processes

Intelligent document
processing

[AWS Intelligent Document
Processing \(IDP\)](#)

Fraud detection

[AWS Fraud Detection](#)

Supply chain
management

[AWS Supply Chain](#)

Identity verification

[Amazon Rekognition](#)

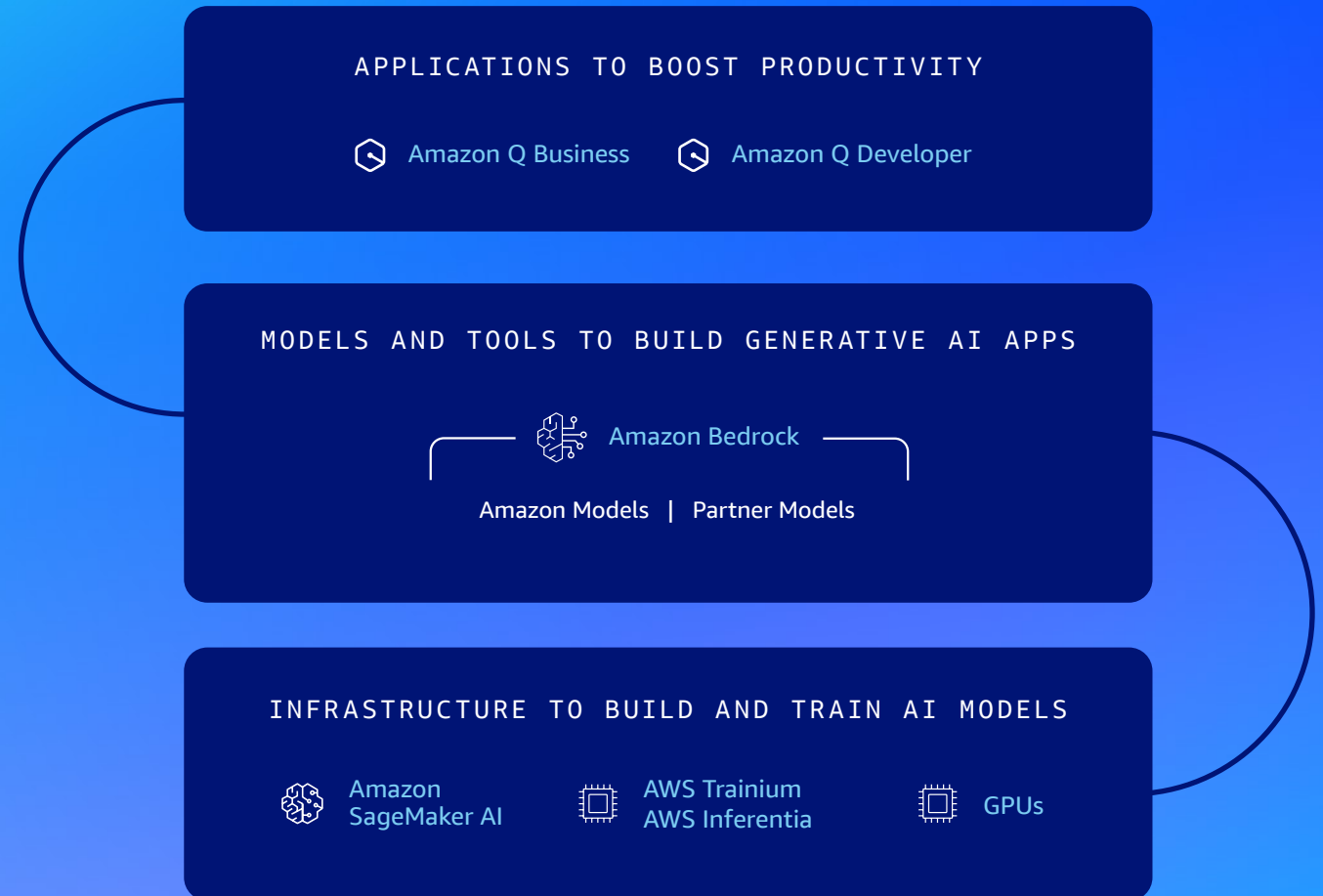
Building a foundation for generative AI success

For long-term success in gen AI, every organization needs access to a comprehensive set of tools and infrastructure to meet their unique needs now and in the future. We like to think of this set of tools as a three-layer stack.

AWS delivers the most comprehensive set of capabilities at every layer of the stack—all with enterprise-grade security and privacy built in—to help you innovate with gen AI, including:

1. **Top layer:** The most capable gen AI-powered assistant to help transform how work gets done
2. **Middle layer:** Amazon Bedrock is a fully managed service that offers a choice of high-performing FMs from leading AI companies through a single API, along with a broad set of capabilities needed to build generative AI applications with security, privacy, and responsible AI.
3. **Bottom layer:** The most performant and cost-effective infrastructure for building and training AI models at scale.

AWS generative AI stack



Realizing the value of generative AI today

The future of business is being shaped by gen AI, and AWS is here to help you deliver tangible value and competitive edge—today and tomorrow.

Join the thousands of AWS customers using our secure, flexible, and scalable AI services to innovate continuously, deliver exceptional customer experiences, and drive sustained growth—all while maintaining the highest levels of trust, privacy, and security.

Start driving business value with gen AI →

