E-book

Innovating Transactions:

How Generative AI Reshapes Payments

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Introduction

As generative AI solutions start shaping the operations of just about every industry, the payments sector finds itself on the cusp of transformative opportunities.

The broad adoption of generative AI represents a new era in which the payments industry can use it to streamline and automate operations, elevate customer experiences and fortify security protocols. Let's take a closer look at some key use cases for generative AI, and explore its relationship to data in this industry.

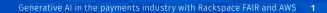### The power of generative AI in the payments industry

Generative AI technologies are revolutionizing the payments landscape through a variety of use cases that redefine how we approach transactions, security and customer engagement:

1. **Fraud detection and prevention:** Generative AI algorithms excel at analysing transaction patterns in real time. They identify anomalies that may signal potential fraud, which can significantly reduce losses.

2. **Personalised customer experiences:** By harnessing the capabilities of generative AI, payments organsations can now offer bespoke payment solutions and tailored recommendations. This level of personalisation enhances customer satisfaction and fosters loyalty, setting new standards for service excellence.

3. **Operational efficiency:** The efficiency of back-office operations is dramatically improved with generative AI. It can be used to automate routine but crucial tasks, such as reconciliation and compliance reporting, freeing up your organisation to concentrate on more strategic initiatives.

4. **Risk management:** Powered by advanced analytics, generative AI can provide deep insight into credit risks and operational vulnerabilities. This enables organisations to make more informed decisions while safeguarding against potential pitfalls and optimising for resilience.

The role data plays in effective generative AI

Data is the cornerstone of generative AI, providing the essential input that fuels the functionality and development of AI models. These models rely on extensive, domain-specific datasets to learn and understand the intricacies of the tasks at hand. The creation and implementation of a modern data strategy becomes crucial, as it enables organisations to harness the full potential of their data resources. High-quality, diverse and well-annotated data sets are needed in order for generative AI programs to grasp context, remain relevant and achieve higher levels of creativity and precision in their outputs.

The variety and source of data — from transactional records to customer interactions — are crucial to the enhancement of AI learning. By prioritizing data privacy and security, you can help to promote its ethical use and build user trust. The data's integrity and scope are vital for AI's versatility, bias reduction and ethical application. Through the continuous integration of new data, AI models stay relevant and reflect the latest trends. Essentially, the quality and dynamism of data are key to maximising the performance and value generative AI delivers.

The need for a data strategy

As we've just learned, a modern data strategy is essential to the successful deployment of generative AI. A modern data strategy will account for the collection, storage, analysis and management of data to help ensure its availability, integrity and usability. Key components of your data strategy should include:

- **Data governance:** This involves establishing clear policies and standards for data management to ensure compliance with regulatory requirements and to protect customer privacy. You want to create a framework that ensures data is used ethically and responsibly.

- **Data infrastructure:** Utilising cloud-based solutions like AWS provides easy access to scalable, secure and efficient data storage and processing capabilities. AWS can accommodate the vast data needs of generative AI, allowing for flexibility and growth.

- **Data analytics and machine learning:** By implementing advanced analytics and machine learning models, your organisation can generate actionable insights from vast amounts of data. These insights can drive innovation and create a competitive advantage by identifying trends, helping you to optimize operations, and increasing your ability to offer personalized customer experiences.

How AWS can support the payment industry with generative AI technology

Amazon Web Services (AWS) offers a wide range of services and tools that enable the payments industry to harness the power of generative AI, its comprehensive suite of machine learning, AI, data analytics and computing services can be leveraged to develop and deploy generative AI applications tailored for the payments sector. These services include:

1. **Amazon SageMaker:** A fully managed service that provides every developer and data scientist with the ability to build, train and deploy machine learning models quickly. SageMaker can be used to create generative AI models for fraud detection, customer behaviour prediction and personalised payment solutions.

2. **Amazon Rekognition:** Offers powerful image and video analysis capabilities. In the payments industry, Rekognition can be used for identity verification processes such as Know Your Customer (KYC) and fraud prevention by analysing ID documents and comparing them with selfies or video streams.

3. **Amazon Comprehend:** A natural language processing (NLP) service that uses machine learning to uncover insights and relationships in text. It can be used for sentiment analysis, customer feedback analysis and automated customer support in the payment domain.

How to approach generative AI

Generative AI promises to transform every industry, and it's precisely for this reason that many organisations are going to have trouble implementing it. Talent is in high demand and short supply. Addressing the knowledge, experience and skills gap in generative AI can be daunting due to the rapid pace of technological advancements.

Outsourcing offers a practical solution by providing access to a global pool of specialised talent, allowing organisations to bridge these gaps efficiently. It enables the incorporation of diverse expertise and fresh perspectives, enhancing creativity and problem-solving in AI projects.

By carefully selecting outsourcing partners, companies can navigate the complexities of generative AI more effectively, ensuring both innovation and responsible development.

Case study 1

An international payments company was struggling to process up to 230,000 customer support emails per month.

We engaged with the customer during a FAIR Ideate session and determined how to use generative AI to automate the categorisation of these unstructured emails and their integration into the case management system.

Utilising AWS Bedrock for email classification, Rackspace facilitated the automation of tasks that were once the responsibility of five full-time employees. This allowed the team to shift its focus towards proactively enhancing operations and customer support, instead of spending its days stuck with the task of continuous monitoring of email inboxes.

Case study 2

A large bank needed to reduce the delays inherent to its anti-money laundering (AML) processes.

Because of the time-consuming nature of manual evaluations required by its anti-money laundering (AML) processes, this bank required up to five days for transaction reviews.

Rackspace Technology delivered a generative AI solution to automate report drafting and highlight critical areas for investigation, which streamlined the traditional review process. This innovation reduced the investigation time from five days to just one, and both enhanced the bank's operational efficiency and fortified its ability to more quickly respond to potential financial crimes.

Foundry for AI by Rackspace (FAIR)

Rackspace Technology launched Foundry for AI by Rackspace (FAIR™) to help payments industry customers accelerate the adoption of responsible AI. Above, we highlight two case studies that demonstrate how FAIR has been instrumental in enhancing operational efficiency, managing risk, elevating customer experiences and advancing fraud detection capabilities.

Take the next step on your AI journey

Start your generative AI journey with FAIR Ideate, the first of three Foundry for AI by Rackspace (FAIR) solutions designed to help you ideate, incubate and industrialize AI solutions quickly and responsibly.

We'll work with you to determine your goals and conduct a feasibility evaluation of AI and its impact on your business operations. Next, we'll define a top-priority AI use case. Then we'll help you assess the quality of the applications and data that are relevant to that use case.

Over the course of several short sprints, we will:

- Identify and prioritise your top use cases
- Initiate your AI solution design, including the identification of which LLM and AI services we'll use
- Create a high-level technical design and architecture
- Provide a proposal for follow-up implementation and engagement

About Foundry for AI by Rackspace (FAIR)

FAIR is at the forefront of global AI innovation, paving the way for businesses to accelerate the responsible adoption of AI solutions. FAIR aligns with hundreds of AI use cases across a wide range of industries while allowing for customisation through the creation of a tailor-made AI strategy that's applicable to your specific business needs. Capable of deployment on any private, hybrid or hyperscale public cloud platform, FAIR solutions empower businesses worldwide by going beyond digital transformation to unlock creativity, unleash productivity and open the door to new areas of growth for our customers.

Learn more about how Foundry for AI by Rackspace (FAIR) can help you capitalise on the power of AI, quickly and responsibly.

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About Rackspace Technology

Rackspace Technology is a hybrid, multicloud solutions expert. We combine our expertise with the world's leading technologies — across AI, applications, data and security — to deliver end-to-end solutions. We have a proven record of advising customers based on their business challenges, designing solutions that scale, building and managing those solutions, and optimising returns into the future.

As a global hybrid, multicloud technology services pioneer, we deliver innovative capabilities to help customers build new revenue streams, increase efficiency and create incredible experiences. Named a best place to work, year after year according to Fortune, Forbes and Glassdoor, we attract and develop world-class talent to deliver the best expertise to our customers. Everything we do is wrapped in Fanatical Experience® — our obsession with customer success that drives us to help each customer work faster, smarter and stay ahead of what's next.