



**REIMAGINE FINANCIAL
SERVICES**

CLOUD INNOVATION SERIES

AMD |  Google Cloud





CLOUD SOLUTIONS HELP FINANCIAL COMPANIES OPERATE SECURELY AND INTELLIGENTLY

AMD | Google Cloud

Businesses in the financial services industry (FSI) are expected by consumers and regulators to operate quickly, securely, and intelligently. For many companies, this means devoting constant effort to improving and diversifying their operations.

In the age of COVID-19, companies are under immense pressure to sustain customers while navigating an extremely volatile climate. At the same time, the industry is experiencing a surge in competition from fintechs along with escalating security risks and regulatory complexity, which are driving significant changes across the global marketplace.

Today's financial companies are prioritizing innovation to develop cutting-edge service offerings and outpace their competitors, and that innovation is powered by data. Banks, traders, brokerage firms, credit card agencies, and insurance companies need to collect and manage vast quantities of data to gain insight into customer behaviors, industry requirements, and shifting global trends. Data is the key to enabling faster, smarter decision-making to boost business effectiveness and increase revenue.

To evolve quickly with their industry, financial companies must transform the way they operate. [Implementing the right technologies](#) is critical to maintain high levels of performance and advance data security. Companies require robust infrastructure to satisfy both demands—to deliver services safely and reliably and proactively respond to customer needs, and to effectively manage vast amounts of sensitive data.

The FSI is undergoing a major paradigm shift, with leading companies moving from the use of traditional technologies to a new breed of cloud-based infrastructure that will unleash superior speed, power, and flexibility to handle the most complex data workloads. Migrating to the cloud is helping financial companies shed the constraints of on-prem operations, creating greater efficiencies through cloud-based computing and opening the door for future innovation.

Whatever your goals, [Google Cloud and AMD](#) make cloud adoption simple and intuitive.

[Google Cloud Confidential Virtual Machines \(VMs\)](#) powered by [AMD EPYC™ 7002 series processors](#) are equipping financial companies to work quickly and securely. Our industry-leading cloud solutions deliver peak processing capacity and high memory bandwidth to execute data-intensive workloads with ease. Compared to on-prem environments, cloud infrastructure offers unmatched agility and flexibility to dramatically improve financial services. As a result, companies are unlocking massive compute performance to support a variety of applications, optimize workloads, and accelerate growth.

As you transform, Google Cloud Confidential VMs provide an additional layer of security to safeguard your sensitive information. [AMD Secure Encrypted Virtualization \(SEV\)](#), an exclusive feature of AMD EPYC™ processors, encrypts data even while it is in use. AMD SEV allows financial companies to leverage their data to extract key insights in order to better serve customers, compete, and expand their operations—all while [maintaining regulatory compliance](#).

Google Cloud and AMD are empowering financial companies to operate with confidence from anywhere in the world. Now, it's your turn. Visit [Google Cloud](#) and AMD online to learn how cloud capabilities can take your business to the next level.



CLOUD INNOVATION IS POISED TO TRANSFORM THE FINANCIAL SERVICES INDUSTRY

AMD | Google Cloud

The financial services industry has seen sweeping changes over the past decade. Rising demand, explosive data growth, and escalating security risks pose ongoing challenges for traditional financial institutions. Legacy technology systems are becoming increasingly costly and burdensome as companies attempt to maintain servers and data centers. In order to succeed, companies must create a new type of operating environment that delivers greater efficiency and security, while also helping financial firms be nimbler in the face of competition from fintechs. The right technologies will accelerate growth and boost revenue by supporting the development of new products, services, and efficiencies while ensuring compliance with ever-changing regulations.

Companies have turned to cloud computing to overcome these obstacles and reimagine many aspects of their businesses. Companies that modernize their operations—in areas like customer service, data processing and analytics, and risk and compliance assessments—can reduce their operating expenses and achieve better business outcomes.

By adopting [cloud for financial services](#), firms can analyze vast amounts of data, including trends, without the need for costly and time-consuming modifications to on-premises computing resources. Migrating to the cloud provides the invaluable ability to make informed decisions promptly, providing more stability and opportunity for revenue growth. To keep up with the movement in markets, the cloud can scale up as needed to conduct risk calculations and simulations—and scale back down when workloads decrease to remain cost-effective.

[Google Cloud and AMD](#) make it fast and simple to transition from legacy systems to a modernized cloud infrastructure. We are working together to transform the financial services industry with proven cloud solutions that allow companies to boost revenue, slash operating costs, and stay up to date with risk assessment and compliance protocols.

[Google Cloud Confidential Virtual Machines \(VMs\)](#) offer industry-leading performance and security features to extract business value and safeguard your data at every turn. Powered by [AMD EPYC™ 7002 series processors](#), Google Cloud Confidential VMs enable optimal performance and capacity while maintaining the reliability and security you expect.

This new breed of processor consistently [ranks #1 in industry standard benchmarks](#) and reinforces your cloud infrastructure with the agility to scale quickly and the data security to offer peace of mind. [AMD Secure Encrypted Virtualization](#), a feature of AMD EPYC™, encrypts your most sensitive data even while it is in use. It's as simple as telling your existing applications to run as a Confidential VM—no code changes needed.

Google Cloud Confidential VMs powered by AMD EPYC™ processors are offered in an array of configurations to suit virtually any of your business's computing demands. These breakthrough technologies can revolutionize the way you do business, from the customer experience to back-end assessment and analysis—all with your budget goals in mind.

Take the next step to reimagine how you do business. [Visit us online](#) to learn more.

The background of the top section is a complex financial data visualization. It features a grid of numbers in various colors (blue, green, red, white) and several line graphs with different colored lines (blue, green, red) overlaid on a dark blue background. The numbers appear to be stock prices or market indicators. A white rectangular box is positioned in the upper right quadrant of this background, containing the main title and logos.

TRANSFORMING FAST-PACED FINANCIAL MARKETS WITH CLOUD ACCELERATION

AMD | Google Cloud

The financial services industry (FSI) is shifting as companies make transformation a top priority. Companies that are using on-prem technologies are now struggling to support a growing population of workers and customers. Finding more effective ways to operate is critical to succeed, but it's also a big challenge.

Today's companies are investing in new technologies to build more resilient and reliable infrastructures. Their mission is to unlock superior performance and cost-efficiencies, so they can meet industry requirements and capitalize on global trends:

- Adapt to escalating customer expectations
- Boost profits through new products and applications
- Manage risk and compliance concerns
- Heighten security measures
- Reduce operating costs
- Innovate ahead of the competition

Financial companies are recognizing the importance of [cloud computing](#) to accomplish these goals. The cloud delivers greater speed, security, and flexibility than traditional infrastructure. However, making the switch can be difficult.

IT professionals with cloud expertise are scarce and expensive to hire. According to a [2019 survey](#) by 451 Research, 69% of financial companies are stuck at the beginning stages of cloud adoption due to a lack of experience or funding, and 44% of these companies are still utilizing traditional, on-prem infrastructure.

Google Cloud and AMD have introduced [cloud solutions](#) that are transforming FSI. We offer the latest technologies to help financial companies navigate fast-paced markets with extreme speed and scalability. [Five of the top 10 financial companies](#) around the world are using our world-class cloud technologies to modernize their compute environments.

[Google Cloud Confidential Virtual Machines \(VMs\)](#) powered by [AMD EPYC™ 7002 series processors](#) are fueling innovation across financial services. Our technologies

support groundbreaking capabilities like predictive analytics for risk management and compliance, real-time decision-making, and increased visibility into key business operations. We enable financial companies to evolve for the future by delivering robust processing capacity and higher memory bandwidth compared to on-prem technology environments. Google Cloud Confidential VMs and AMD EPYC™ processors are the ideal solution to provide faster, more intelligent, and more secure computing performance.

Google Cloud and AMD provide an additional layer of security to protect sensitive data. Using [AMD Secure Encrypted Virtualization \(SEV\)](#), a hardware-based feature of all AMD EPYC™ 7002 series processors, Google Cloud Confidential VMs can encrypt data even while the data is in use. VMs equipped with AMD SEV-enabled processors are redefining financial services and applications, enabling companies to better secure their workloads and collaborate in the cloud with confidence.

Learn how to accelerate your success in the cloud. Visit [Google Cloud](#) and [AMD](#) today to get started.



REIMAGINE FINANCIAL PRODUCTS AND SERVICES WITH CLOUD INNOVATION

AMD | Google Cloud

In the financial services industry, companies are consistently looking for ways to work smarter and faster than the competition. Advancements in IT are driving changes in every market, and cutting-edge tools and capabilities are emerging to respond to evolving business requirements and customer expectations.

Today's financial organizations are making it a priority to transform how they operate with infrastructure that can fuel efficiencies, scale elastically, and enable the development of new products and services. To make these changes happen, companies are building a culture that is data-driven and empowered by disruptive technologies that enhance their performance and deliver winning customer experiences.

Cloud computing has opened the door for companies to create new financial applications, products, and services to effectively engage their customers while lowering IT costs and complexity. Top decision-makers in the industry are recognizing the cloud as [more than a technology](#). Migrating data and workloads off-premises is a powerful strategy that makes companies more effective, reliable, and secure. Cloud capabilities offer major benefits over on-premises IT:

- **Seamless innovation** – Unlocks previously impossible computing scenarios, so companies can share confidential datasets and collaborate on research in the cloud.
- **Simplified infrastructure** – Making the switch is easy with a trusted provider to plan, implement, and manage cloud infrastructure while reducing IT footprint.
- **World-class performance** – Companies can accelerate a wide variety of workloads with the unmatched agility of the cloud.
- **Rapid deployment** – The latest cloud technologies are easy to deploy and manage to streamline deployment and let financial IT teams focus on their business initiatives.

To capitalize on these advantages, companies are looking for a cloud provider that can help them innovate and develop new approaches to delivering financial services. Companies everywhere are trusting [Google Cloud and AMD](#) to reimagine how they work, including [5 of the top 10 financial organizations](#). Together, we provide the latest

cloud technologies to deliver new customer experiences, create and market offers, optimize operations, and effectively allocate critical resources.

Google Cloud and AMD are here to help your company succeed in the cloud. [Google Cloud Confidential Virtual Machines \(VMs\)](#) powered by [AMD EPYC™ 7002 series processors](#) enable you to grow your revenue with unparalleled performance to accelerate new products and services. With extreme processing capacity, flexibility, and memory bandwidth, our cloud solutions are the ideal foundation to optimize any workload at a lower cost. While you operate at scale, Google Cloud Confidential VMs offer advanced data security to protect your organization from the inside out. [AMD Secure Encrypted Virtualization](#) is designed to encrypt your sensitive information even while it is in use, so you can pursue solutions to new demands and lead your industry.

Google Cloud and AMD are committed to delivering the [right solutions](#) to help you get started. Visit us online to [learn more](#).



FAST-TRACK FINANCIAL WORKLOADS WITH UNPARALLELED CLOUD PERFORMANCE

AMD | Google Cloud

Financial organizations are moving to the cloud in order to work and innovate faster. Cloud infrastructure enables them to build more reliable and resilient services while making the most of their IT environments. Adopting cloud technologies can [accelerate financial workloads](#) of every size and scope, allowing companies to scale up or down to meet demand without wasting resources. This type of infrastructure provides critical advantages for operations today, including:

- Lower IT costs
- Improved operational efficiency
- Elastic scalability
- Faster insights from data
- New business opportunities
- Data-driven decision-making

Many financial institutions recognize the importance of cloud computing. According to a survey by 451 Research, [51%](#) are already using public cloud services, with [another 16%](#) planning to implement them soon. However, companies can face roadblocks to cloud adoption. [Nearly half 46%](#) of those surveyed lack basic cloud platform expertise, and [42%](#) don't have the IT skills needed. IT professionals with the necessary skill sets are expensive and difficult to retain, and without flexible technologies in place, companies will struggle to improve their performance going forward. To keep pace in this challenging landscape, financial organizations must find the right partners to help them reimagine how they work.

Google Cloud and AMD are helping these organizations succeed. We offer a [new breed of cloud solutions](#) that optimize financial operations from end to end, allowing you to accelerate key workloads and strategic action. We help you create common, connected datasets in the cloud to enhance how your teams collaborate, enable deeper insights, and speed up time-to-value. These capabilities let you fast-track critical workloads and respond quickly to changes in demand, new requirements, IT disruptions, security threats, and much more.

[Google Cloud Confidential Virtual Machines \(VMs\)](#) powered by [AMD EPYC™ 7002 series processors](#) deliver high processing capacity and memory bandwidth for your most intensive data tasks. Built on Google Cloud's robust global infrastructure, Confidential VMs are designed with cloud agility in mind for a wide variety of workloads, including running financial applications on databases with a minimal impact on performance. Our platform provides overall cost-efficient computing, enabling financial services to innovate and modernize any environment with ease. Now, you can focus on business growth while eliminating the constraints of scale, performance, and cost.

As you transform your infrastructure, Confidential VMs help to secure your sensitive workloads through [AMD Secure Encrypted Virtualization \(SEV\)](#). AMD SEV is a breakthrough feature of the latest AMD EPYC™ processors that encrypts your data when it is being used. Now, you can gain real-time insights with the peace of mind that your operations are secured by industry-leading threat protection.

Financial organizations around the world have chosen Google Cloud to help them reinvent their businesses with data. Today, with the [incredible technologies](#) we have available, we can help your data teams execute workloads efficiently, securely, and at scale.

Let's start your cloud journey today. Visit us online to [learn more](#).



EASE RISK AND COMPLIANCE CONCERNS WITH ENHANCED CLOUD SECURITY

AMD | Google Cloud

In the financial services industry (FSI), data is at the core of every product, service, and business initiative. Financial organizations handle massive amounts of event-based and customer-centric data. Now, they are feeling the pressure to better secure their information and mitigate considerable risks.

A diverse and growing number of security threats has put the entire industry under a magnifying glass. The rise of cybercrimes, fraud, internal threats, and external attacks has made it essential to create a new approach to data confidentiality. Companies that operate on legacy infrastructure often lack the speed, security features, and expertise to keep their data safe as it moves across their operations.

To overcome these challenges, financial organizations are working quickly to transform how they manage their data in order to improve operational performance, avoid hefty costs associated with data breaches, and remain compliant. Many organizations are investing in [technologies that are faster and more flexible](#) than on-premises technologies, allowing them to analyze their data in real time to identify, resolve, and even predict security issues.

By migrating to the cloud, companies are able to modernize core IT operations that help to reduce risk and ease compliance concerns. Cloud infrastructure is designed to enhance data security by accelerating time-to-insight for more immediate and automated responses to threats. In fact, cloud-based operations can be as secure or more secure than on-premises operations—but only when implemented with the right partners.

Google Cloud and AMD are redefining financial services with multi-layered security in off-premises environments. We give you [the right cloud technologies](#) and tools to safeguard your data everywhere, so you can gain faster insight and work with confidence.

[Google Cloud Confidential Virtual Machines \(VMs\)](#) powered by [AMD EPYC™ 7002 series processors](#) are expertly designed to enable data agility and security at scale. Our joint solutions deliver [world-leading performance](#) with overall cost-efficient computing to meet all of your data and workload requirements with ease.

Confidential computing addresses key security concerns that many organizations have about offloading workloads to the cloud and safeguarding their most valuable information. Google Cloud Confidential VMs help ensure the integrity of your financial operations with the same security technology that supports Google's private global network, meeting rigorous and [industry-specific compliance standards](#). We make it simpler for organizations to manage risk and comply with evolving regulatory requirements across multiple systems and locations. For an added layer of protection, confidential computing leverages AMD Secure Encrypted Virtualization (SEV), a breakthrough feature of 2nd Gen AMD EPYC™ processors. AMD SEV encrypts your data even while it is in use, helping to keep it isolated from other users, the hypervisor, and even system administrators.

With Google Cloud and AMD solutions, you have better control of your data along with breakthrough confidentiality. That's why [5 of the top 10 FSI companies](#) partner with us to migrate off-premises.

Learn more about the [cloud solutions](#) that can transform how you manage risk. Visit Google Cloud and AMD [online](#) today.



ACCELERATE FINANCIAL INSIGHT WITH CLOUD ANALYTICS

AMD | Google Cloud

Data analytics is an essential tool for today's financial organizations. The ability to compete in fast-paced markets, address risks, anticipate customer trends, and drive business growth relies on data-driven insights. On-premises environments face a number of challenges when it comes to executing data analytics, including capacity constraints, backlogged data, and escalating IT complexity. With massive amounts of information available, companies must find ways to manage their data quickly to avoid missing out on valuable opportunities.

The financial sector is undergoing major changes as organizations adopt cutting-edge tools and strategies to transform their businesses with data. By modernizing their IT environments, today's companies are able to work efficiently and intelligently.

Advancements in cloud computing are a key driver for this shift. The cloud offers nearly limitless capacity to scale data analytics, without the cost of rigid on-premises infrastructure. This offers multiple benefits:

- Optimizing how data is used
- Improving operational efficiency
- Scaling elastically
- Executing intensive workloads at a lower cost
- Gaining real-time and predictive insights
- Accelerating financial services innovation

The [ideal cloud infrastructure](#) empowers financial services with increased visibility and broader insight, allowing companies to completely reshape how they learn, work, and make decisions. These advantages are urging companies to migrate off-premises to tap into the full power of business data.

Google Cloud and AMD are transforming financial services with [groundbreaking cloud solutions](#). Our joint offerings deliver increased agility and scalability compared to on-premises environments so that financial organizations can accelerate intelligent analytics, make strategic decisions instantly, and fuel innovation for new products and revenue streams.

[Google Cloud Confidential Virtual Machines \(VMs\)](#) powered by [AMD EPYC™ 7002 series processors](#) deliver extreme processing capacity and flexibility to optimize any workload. Together, these solutions provide a cloud platform that is built for performance, so your company can benefit from unparalleled efficiency and deeper insights on demand. Cloud computing makes it simpler to execute your most demanding data and analytics tasks while maintaining overall cost-efficient IT operations. Google Cloud Confidential VMs offer advanced data protection through [AMD Secure Encrypted Virtualization \(SEV\)](#) to help secure sensitive information as you work. AMD SEV is a cutting-edge security feature of AMD EPYC™ processors that encrypts your financial data while it is being collected, shared, and analyzed.

Google Cloud and AMD unlock previously impossible computing scenarios, so you can access critical datasets and uncover faster insights in the cloud— without sacrificing confidentiality. Our commitment to ongoing cloud innovation allows financial organizations to reimagine and lead their industry. Now, it's your turn.

Visit us online today, and learn how our [cloud solutions](#) can enable faster, smarter decision-making.

