



Smarter AI for All: a Lenovo vision for Financial Services



Get started with Intel AI
in Financial Services

Smarter
technology
for all

Lenovo

Already good with data

The Financial Services Industry (FSI) is a space where AI has long been a reality, rather than a hype-cycle pipe dream. With analytics and data science firmly embedded in areas like fraud detection, anti-money laundering (AML) and risk management, the industry is about to pioneer another wave of AI-fueled capabilities, powered by generative AI-based technologies.

On the cusp of an AI revolution

At Lenovo, we believe the industry is on the cusp of an AI revolution comparable to the adoption of the Internet or introduction of the smartphone. Just as mobile devices spawned entirely new ecosystems of applications and consumer behaviors, AI and especially GenAI-based systems, are poised to fundamentally reshape how we work, interact with customers, and manage risk.

Who's ready to go?

Those organizations that are ready to move are set for transformational shifts in security, productivity, efficiency, customer experience and revenue-generation. At Lenovo, we're working with our trusted partners like Intel® to deliver Smarter AI for All, bringing AI to your data where and when you need it most—from pocket to cloud—in a secure, private, ethical, and trustworthy manner. Lenovo's vision of Smarter AI for All is particularly relevant for FSI, where the human touch remains crucial.

A pioneering sector

Ironically, with its reputation for conservatism, FSI has always been at the forefront of finding smart new ways to manage data, particularly large volumes of data. This is partly out of necessity: the huge amount of data generated in FSI presents a permanent volume-variety-velocity challenge and the stringent regulatory environment makes a compelling case for embracing AI with open arms.

Balancing innovation with risk

Every industry will understand the frustrating paralysis that comes after AI proof-of-concept projects: plenty of exciting experiments but where's the ROI? Implementing AI brings a world of worries, including:

- Knowing where to start
- A lack of strategic approach (AI for the sake of AI)
- The seven Vs of data (volume, veracity, validity, value, velocity, variability, volatility)
- Skillset gaps and talent shortages
- Managing evolving cybersecurity risks
- Meeting evolving compliance laws on AI and GenAI that differ across countries and geos
- Difficulty integrating simple or complex data from diverse sources, particularly with legacy systems (data silos) and hallucinations
- Ensuring transparency, explainability and fairness/lack of bias
- Customer trust around data privacy and employee resistance
- Loss of customer data and confidential trading strategies outside the firm (for example, ChatGPT is banned at some large institutions)
- Underpowered hardware and devices

AI grounded in security

If the industry has a willingness to adopt AI, it also has a paramount concern for security, particularly cybersecurity and data protection holding it back. In addition to accuracy, explainability, and transparency, security is a cornerstone of AI integration in FSI business processes. This includes adhering to differing AI regulations, such as the [EU AI Act](#), the decentralized model in the United States, and GDPR, as well as ensuring data privacy and information security. Unlike traditional IT systems, AI solutions must be built on a foundation of strong governance and robust security measures to be responsible, ethical, and trustworthy.

However, with the integration of AI in FSI, this presents several new attack vectors, such as cybersecurity attacks, data poisoning (manipulation of the training data used by AI models, leading to inaccurate or malicious outputs), model inversion (where attackers infer sensitive information from the AI model's responses), and malicious inputs designed to deceive AI models causing incorrect predictions.



Security-by-design

In an industry built on trust, ensuring the integrity and trustworthiness of AI-driven applications is central. And with most data breaches due to compromised user credentials, any AI security strategy worth its salt not only turns its attention to include end-user education, but also relies on empowerment at the device level, made possible by a new class of Intel processors. Lenovo's approach includes:

- Lenovo ThinkShield Zero Trust practices to secure devices, infrastructure and networks
- Hybrid AI that balances on-premise and cloud processing to protect sensitive data
- Partnerships with leading security vendors to create a robust ecosystem
- Lenovo-owned manufacturing—security built into every system and the component level

- Lenovo-established governance across products and services, to maintain a vigilant focus on customer safety
- Constant innovation in security to continuously earn customer trust

Lenovo's security-by-design approach lays the groundwork for responsible AI solutions, the Intel vPro® platform enables advanced hardware-based protection, and when combined with Lenovo's Supply Chain Assurance capabilities, these measures safeguard devices and infrastructure right from the component level. Lenovo also prioritizes its commitment to AI and the strategic importance of AI and security through its Global Security Organization, and the appointment a Chief Security & Artificial Intelligence Officer (CSAIO).

Responsible AI

Responsible AI is imperative when developing and implementing an AI tool. Lenovo established the Responsible AI committee, which covers a wide array of challenges in the AI space. It makes sure AI is legal, ethical, fair, privacy-preserving, secure, and explainable. This is vital for FSI as it prioritizes transparency, fairness, and accountability. In AI development, Lenovo helps FSI organizations mitigate risks, build trust, and maintain integrity in sensitive financial operations, ultimately enhancing customer confidence and loyalty.

The six pillars of Responsible AI at Lenovo are:

- 1. Diversity & Inclusion:** ensures AI respects diverse perspectives and avoids bias.
- 2. Privacy & Security:** protects user data with robust security and privacy measures.
- 3. Accountability & Reliability:** holds AI systems/developers responsible for outcomes.
- 4. Explainability:** makes AI decisions understandable and accessible to all users.
- 5. Transparency:** provides clear insight into AI processes and decision-making.
- 6. Environmental & Social Impact:** minimizes AI's ecological footprint and promotes social good.

Rethinking the role of IT

In the traditional world, you would respond to challenges by powering up your IT systems: transaction processing, data management, back-office support, storage capacity and so on. But as AI filters further into your tech stack, the game changes. As it becomes more than software, AI creates an entirely new way of operating.

So, your IT teams become not only 'the keepers of the data' but digital advisors to your workforce, by automating routine tasks, integrating AI-driven solutions, and getting data to work for them, helping them improve their own productivity and efficiency, and giving them the personal processing power they need. AI-powered solutions on smart devices like AI PCs running on the latest Intel® Core™ Ultra processors predict user needs based on behavior, while keeping data private unless shared with the cloud—we call this **AI For You.**



A new wave of AI use cases AI in use today

Among Financial Services customers, we're seeing some exciting AI use cases that will have industry-wide implications. But first, companies must build a scalable, secure and sustainable AI architecture and this is very different to building a traditional IT estate. It requires a holistic, team-based approach involving stakeholders from division leadership, infrastructure architecture, operations, software development, data science and lines of business. Use cases include:



Simulation & modeling:

Predictive simulations, deep learning, and reinforcement learning to personalize recommendations, improve supply chains and optimize decision making, forecasting, and risk management.



Fraud detection & security:

AI-driven pattern recognition algorithms to detect anomalies, automate fraud detection, enhance know-your-customer (KYC) compliance checking, and strengthen security.



Smart branches and smart building transformation:

AI-powered kiosks, and edge analytics to create personalized customer experiences (such as multiple simultaneous language translations); local LLM processing to ensure complete privacy, and smart cameras improve branch safety.



Process automation:

AI streamlines repetitive tasks and workflows such as financial reporting, reconciling records, loan processing, and enhancing customer services, while ensuring compliance and security.



AI Ops:

AI technologies can automate infrastructure workflows to accelerate provisioning and problem resolution.



Customer Services:

AI is enabling organizations to provide 24/7 support, instant responses, personalized experiences, and more efficient issue resolution, including virtual assistants.



Accelerate due diligence:

Significantly expedite your due diligence process, whether it be contract analysis or as part of mergers and acquisitions, and identify potential synergies as well as risks.



Compliance:

Automating regulatory checks, ensuring accuracy, reducing risks, and maintaining up-to-date records efficiently.



Wealth management and Personal Wealth Advisors:

Matching customers with suitable financial products and provide personalized investment advice to enhance customer satisfaction and operational efficiency.



Energy savings:

AI optimization in data centers, improves power management, and reduces energy consumption.

Grounded in Responsible AI, and to support customer innovations like these, Lenovo has established a Center of Excellence and an AI Innovators Program. These initiatives provide resources, expertise, and collaborative opportunities to help financial institutions accelerate their AI journey. [Learn about how our data scientists and engineers can help you get started on your AI journey.](#)

Intel contributes its leadership to this effort by developing platforms and solutions to make it easier to deploy AI responsibly, creating software tools to ease the burden of responsible AI development, while exploring approaches to improve privacy, security, and transparency.

Cross-industry best practice

Building a scalable and sustainable AI architecture begins with technology partners like Lenovo and Intel that can bridge cross-industry best practices for compliance, security, and data management. Services such as Lenovo's AI Fast Start give you access to AI assets, experts, and partners that will help you rapidly build a GenAI use case—using your own data, tailoring it to real-world environments and speeding progress to deployment at scale.

We understand that implementing AI in FSI requires a comprehensive strategy that addresses people, processes and technology. And selecting the right mix hardware to handle AI needs new thinking throughout the estate. Not many providers can deliver a full, simplified AI tech supply chain, from data center technology to end-user devices, ensuring secure AI technology integration from components to the desktop. Our pocket-to-cloud portfolio puts us in a unique position to offer an end-to-end solution and help customers take advantage of AI.

Lenovo simplifies AI

Lenovo Smarter AI for All simplifies adoption and brings innovation to everyone through a Hybrid AI model, ensuring AI is delivered seamlessly, responsibly and securely to personal, enterprise and public environments.

Smarter AI for All extends from personal AI for your staff to work more efficiently, and securely, on devices like AI PCs and smartphones, to Enterprise data centers, edges for your bank branches where you may need real-time access to data and where you need high-performance compute, and public AI where you can scale workloads.

In line with the unique demands of FSI, Lenovo brings a hybrid approach, which can blend on-premises and cloud-based processing. Our broad portfolio is designed to support innovation, enhance customer experiences, and maintain regulatory compliance.

The pace of change

To help Financial Services organizations keep up with AI's rapid evolution, Lenovo offers TruScale—an everything-as-a-service procurement model for flexible, scalable AI infrastructure. Along with our managed services offering and a comprehensive partner strategy we make sure our clients have access to AI expertise on demand and the latest, best-in-class AI software.

Cost-optimized, scalable AI

Lenovo PCs and workstations include Intel® Core™ Ultra processors and the new Intel AI-accelerating NPU (Neural Processing Unit), putting powerful AI devices directly in the hands of employees to enhance productivity and decision-making.

The Lenovo ThinkStation PX, powered by Intel® Xeon® scalable processors is ideally suited for AI workflows with its advanced GPU, while Lenovo's lightweight laptops like the ThinkPad X1 Carbon, powered by Intel® Core™ Ultra processors also come with AI capabilities built in.

Our edge, servers, and storage devices, like ThinkEdge and ThinkSystem, underpin an effective and efficient AI strategy; edge solutions process data near the source, reducing latency and bandwidth usage; servers provide the computational power needed to train, deploy, and manage AI models, handling large-scale data processing and complex tasks; secure storage

across cloud and on-prem is crucial for safeguarding the vast amounts of data required for training AI models and maintaining operational data, ensuring quick access and retrieval.

AI technology requires exponentially more system power than standard servers. All that power generates a great deal of heat. Lenovo's Neptune™ Liquid Cooling works together with the power efficiency of Intel AI accelerators to achieve maximum performance to meet the demands of AI in areas like model training, high-frequency trading, and real-time fraud detection, while dramatically improving energy efficiency.

Lenovo is a trusted technology partner with four AI Innovation Centers, 18 R&D locations, and an extensive AI partner ecosystem. We are uniquely poised to help FSI with AI readiness. From identifying opportunities and use cases to managing data and deploying solutions, Lenovo becomes part of your AI strategy team to create the foundation for organizations of all sizes – no matter where they are on their AI journey.

Explore AI for All

To see how Lenovo can help you accelerate your AI journey, book a discovery session today or contact your Lenovo representative.

Or take a look at our AI Solutions that put performance and reliability right in the hands of your people.

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