

AI-Led Modernization of Financial Services

POINT OF VIEW





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About **NSEIT**

NSEIT Limited is a global technology enterprise, focused on delivering excellence in complex digital environments primarily in the banking, insurance, and capital market ecosystem, and the edtech and online examination space.

We create end-to-end, next-generation, business-enabling technology solutions across applications, data and analytics, cloud, and security.

With over 20 years of expertise in building complex digital solutions for 150+ customers across the US, India, and the Middle East, our comprehensive collaborations have made us a trusted technology and knowledge partner.

NSEIT's talent pool of 3,300+ highly specialized business and technology experts is a key driving force. Our people embody our core values of "passion for excellence, customer centricity, and ownership" to deliver exceptional customer experiences and unlock value at scale.

We are certified for ISO 9001:2015, ISO 27001:2013, ISO 20000, STQC and CERTIN, and Maturity Level 5 in CMMI® Development and CMMI® Services as well as Maturity Level 5 in CMMI® SVC.



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Overview

The financial services industry is experiencing a digital revolution driven by rapid advances in artificial intelligence. This transformation, often termed AI-led modernization, is not a trend but a profound structural shift in how financial institutions conduct business, service their customers, and manage risks. Integrating AI into the financial services sector is transforming the industry, making it more efficient and superior in decision-making quality and improving customer experience.

The following PoV discusses the critical enablers of AI-led modernization:



Central to these transformative journeys are strategic partners like **NSEIT**, who play a pivotal role in guiding and implementing AI-led solutions across various facets of financial services. With extensive expertise in applications, data management, cloud computing, and zero-trust cybersecurity, we have been instrumental in helping organizations navigate the complexities of digital modernization effectively and securely.

This PoV provides insights into how they work in real life and how NSEIT has collaborated seamlessly with financial institutions to bring these elements together. We will delve into real-life implementations, discuss the implications for customers and organizations, and summarize key takeaways from embracing AI-driven transformation in the financial sector.

The Pillars of AI-led Modernization



Applications (Apps)

AI-Driven Applications: AI has snuck into every aspect of financial services, from intelligent applications that enhance operational efficiency to augmenting customer experience and automating decision-making processes. A recent [NASDAQ](#) report indicates that **80%** of leading financial institutions invest in AI-driven applications to enhance customer engagement and streamline operations. Whether the robo-advisor, which provides real-time investment advice, or simply the chatbot, which responds to customers instantly for their queries, AI-driven applications offer an enriching user experience at reduced operational costs.

Process Automation: AI-powered applications are crucial in automating routine tasks, such as loan approval, fraud detection, and customer onboarding. This speeds up the processes and reduces human errors to a minimum, ensuring more accurate and efficient service delivery.

Personalization: AI can enable financial institutions to provide very personalized services. This will involve customizing products and making recommendations to meet customers' needs through real-time data analysis. This level of customization can create a closer association between a customer and an institution, along with increased loyalty.

Observability: Observability in AI-led modernization allows organizations to gain insights into AI systems and their impact on business processes by collecting and analyzing data from AI models, infrastructure, and user interactions to ensure optimal performance, detect anomalies, and drive continuous improvement. Implementing observability enables organizations to enhance transparency, troubleshoot issues quickly, and make data-driven decisions to refine their AI strategies.

NSEIT has been a critical partner in developing and deploying these AI-driven solutions for our clients. By leveraging our deep understanding of financial services and leading AI technologies, we have helped numerous institutions design and implement custom applications customized to their needs. For example, we recently implemented a centralized observability platform for a client that set a new standard in application observability. With this solution, the client not only streamlined their operations but also enhanced their capability to monitor and manage a diverse technological environment effectively. Additionally, with our robust automation frameworks and customer analytics expertise, we have assisted financial organizations in identifying and automating key processes while delivering personalized experiences to their customers.



Data

Data as the Foundation: Data, especially in AI-led modernization initiatives, forms the bedrock on which other pillars are based. Financial institutions generate vast amounts of data, which must be managed comprehensively to utilize its full potential. AI tools can process this data at unprecedented speeds, uncovering insights that drive innovation and inform strategic decisions. In fact, **83%** of financial services executives agree that AI creates new ways to differentiate offerings and win customers, driven by access to **unique data sets**.¹

Predictive Analytics: AI, together with machine learning, will lead to the adoption of predictive analytics for financial services in market trend

forecasting, risk assessment, and decision-making. This predictability is extremely useful when making a diligent credit scoring decision, where accurate predictions can make a big difference to the lender's bottom line.

Data Management and Governance: While data is integral to operations, there is an increasing requirement to ensure the data is high quality, secure, and compliant with regulations. AI-driven solutions make it easier to manage their data and govern this essential enterprise resource while reducing the risk of data breaches and potential compliance violations.

Recognizing the critical role of data, NSEIT offers comprehensive data management solutions that ensure data is accurate, accessible, and actionable. We assisted a client in consolidating disparate data sources into a unified platform, enabling real-time analytics that allowed more effective investment strategies and improved portfolio performance. We have also developed advanced predictive models that help organizations anticipate market movements and customer behavior and provide robust data governance frameworks that comply with industry regulations such as GDPR.



Cloud Computing

Scalability and Flexibility: The cloud provides infrastructure for rapid scaling and speedy AI application deployment. This further lets the different tiers in finance scale resources up or down according to demand and optimizes performance without significant capital investment in physical infrastructure.

Collaboration and Innovation: Most collaboration happens because the teams will have seamless access to data and AI models and can share all those on cloud platforms. This nurtures innovation because

teams can collaborate in a much more evolved way to develop and deploy AI-driven solutions.

Cost Efficiency: Financial service providers can reduce the costs of maintaining on-premises data centers by migrating to the cloud. The cloud's pay-as-you-go model allows organizations to pay only for the resources they use, leading to significant cost savings.

The global finance cloud market, valued at \$23.67 billion in 2020, is projected to reach \$90.11 billion by 2030, growing at a **12.4% CAGR** from **2021 to 2030**². NSEIT plays a central role in this growth by

specializing in designing and migrating financial services to cloud-based infrastructures. Our AIOps framework is engineered to reduce cloud costs by integrating management with product, finance, and IT teams, bringing a new level of accountability to cloud spending. This approach to cloud optimization has consistently enabled our clients to maximize cost savings while maintaining high performance. For instance, we successfully optimized cloud resource allocation for an asset management company, reducing operational costs by up to 45% and allowing them to concentrate more on core business development activities.



Zero Trust Cybersecurity

The Zero Trust Model: The increasing use and, at times, complete reliance on AI and digital channels within financial services organizations has raised the stakes for cybersecurity. This Zero Trust model of cybersecurity underpins the typical implementation of AI modernization. Classic security models are based on the principle that users can be trusted inside a network. Still, Zero Trust assumes that the threats can stem from inside or outside, so each access request must be verified constantly.

AI-Powered Threat Detection: AI reinforces Zero Trust cybersecurity by enabling more advanced threat detection and response. Its algorithms can monitor network traffic for anomalies and respond in real-time to potential threats, drastically reducing the risk of data breaches and other forms of cyberattacks.

Risk and Compliance Management: Zero Trust cybersecurity allows an organization to achieve compliance while managing the associated risks effectively, given the presence of regulations like GDPR and the rigid requirements concerning data protection in the financial industry. AI tools can automate checks to ensure financial institutions meet all regulatory requirements.

NSEIT delivers comprehensive Zero Trust security solutions customized specifically for financial institutions. By implementing Zero Trust architecture for major firms, we've significantly reduced security breaches and strengthened overall network security. Our advanced threat detection systems offer real-time monitoring and rapid response capabilities while our security compliance services ensure clients meet all regulatory standards and maintain a robust security posture.



Interpreting **AI-led Modernization Implementations**

Strategic Integration:

AI-led modernization in financial services essentially involves integrating these pillars into existing frameworks and processes. The implementation must be highly strategic and innovative while remaining pragmatic in cost-risk and regulatory compliance-related considerations. Financial organizations must develop a well-defined strategy for integrating AI-driven applications into data management, cloud computing, and cybersecurity with a zero-trust cybersecurity model. A targeted strategy for fulfilling long-term goals must also fully consider customers' needs.



Collaborative Ecosystems:

Successful AI-led modernization implementations usually involve a collaborative ecosystem with technology partners, fintech, and other key stakeholders. In building an ecosystem that best leverages different players' strengths, financial institutions can quicken the pace of innovation and go to market even faster with their new AI-driven solutions.

Pilot Programs and Scaling:

Financial institutions should execute pilot programs before fully deploying AI solutions to measure their effectiveness. The pilots provide valuable insights that can be used to refine the technology and institute best practices for scaling AI implementations across the organization.

NSEIT offers strategic consulting services to help organizations design and execute effective AI modernization strategies. Our approach begins with a thorough assessment of existing systems and infrastructure, allowing us to identify key areas for improvement and potential AI integration. We conduct pilot programs to fine-tune client systems using advanced assessment tools and strategies, ensuring they are optimized for peak performance. These pilot initiatives are critical for gathering initial feedback and refining the strategy before scaling AI solutions across the organization. Our expertise extends to continuous support and guidance throughout the implementation process, ensuring that AI initiatives deliver sustained value over time.

What Does This Mean for **Customers and Organizations**

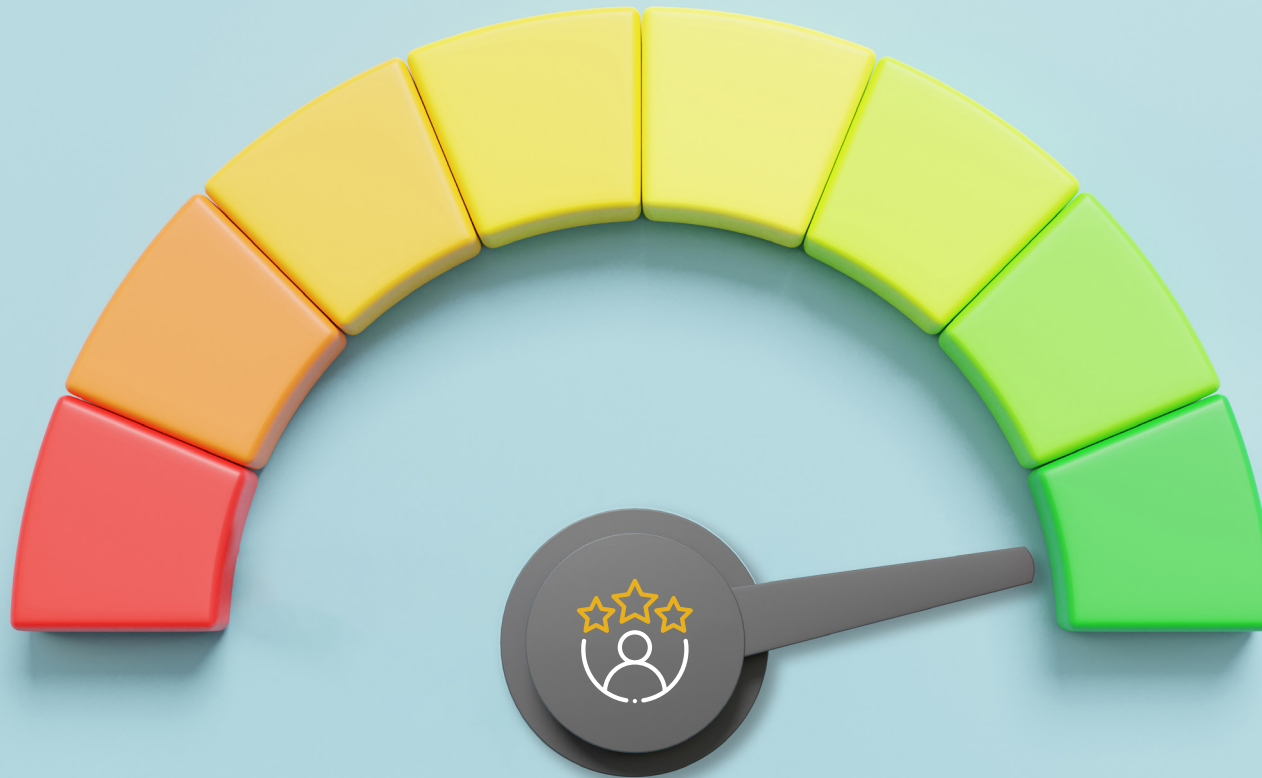
AI-driven modernization has profound results for customers and financial institutions alike. Customers will enjoy faster, more personalized, and efficient services. For financial institutions, AI-driven applications provide customized financial advisories, automate routine transactions, and provide 24/7 customer support to improve the overall customer experience.

AI-driven modernization will drive organizations to be competitive and innovative and help financial organizations streamline operations, reduce unnecessary expenses, and lessen certain risks.

Analyzing large volumes of data in real-time allows organizations to make better decisions, discover new revenue sources, and respond more promptly to market changes.

This modernization, however, brings with it a host of challenges. Financial institutions would need to address issues relating to data privacy, cybersecurity, and ethical AI use. In other words, all AI-driven processes should be transparent, non-discriminatory, and accountable to maintain customer trust and adherence to regulatory requirements.

Organizations partnering with us have realized substantial benefits, including streamlined operations, enhanced security, and improved financial performance. We also incorporate robust ethical guidelines and compliance measures into all AI solutions, prioritizing transparency and accountability and ensuring that AI systems are designed and implemented with fairness and customer trust. Our comprehensive approach to security and ethics helps organizations navigate the complexities of AI adoption responsibly and effectively.



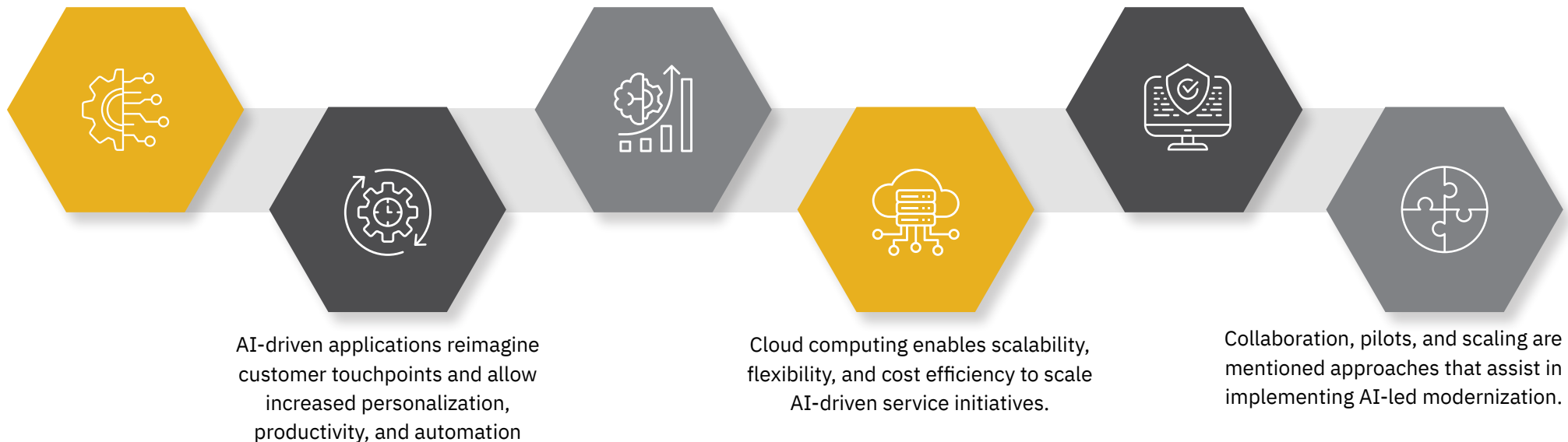
Key Takeaways

While the financial services industry is undergoing rapid change with AI-led modernization initiatives, it is critical to learn from this journey. This section summarizes the importance of each pillar and how they relate to organizations and customers. This is also a quick reference to understand why a strategic approach to AI-led modernization is critical in driving innovation, improving customer experiences, and differentiating themselves from competitors in an ever-evolving financial ecosystem.

AI-driven modernization in financial services is powered by integrating AI applications, data management, cloud computing, and zero-trust cybersecurity.

Data forms the backbone of AI-led modernization, and predictive analytics and data governance are vital for the emergence of innovation and risk management.

Zero-trust cybersecurity helps ensure sensitive data and compliance in this increasingly digital and AI-driven environment.

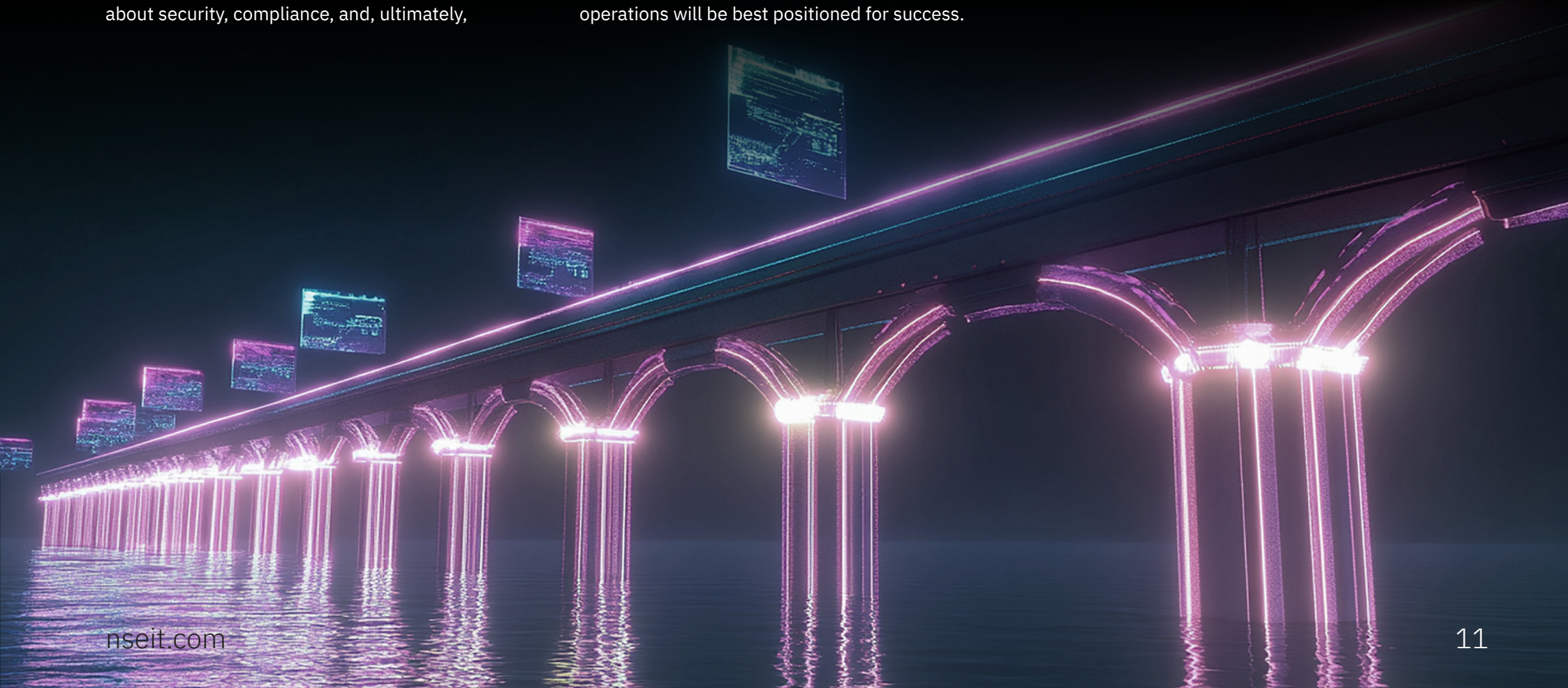


AI-led modernization in financial services increases customer engagement, making it more personalized and efficient. Organizations gain a competitive advantage with optimized operations and more effective decision-making.

Conclusion

AI-driven modernization can transform the financial services industry, opening avenues for innovation, efficiency, and engaging customer services. Financial institutions can navigate the complexities AI-led modernization with a relative competitive advantage by relying on the critical pillars of AI-driven applications, data management, cloud computing, and zero-trust cybersecurity. However, to realize the total value of AI-driven modernization, an organization must be strategic in its implementation, balancing the act of innovating while being practical about security, compliance, and, ultimately,

customer trust. NSEIT's comprehensive solutions and strategic guidance have proven invaluable in helping organizations realize the full potential of AI technologies, ensuring that modernization efforts are effective, secure, and aligned with business objectives. Our collaborative and tailored approach enables financial institutions to overcome challenges, capitalize on new opportunities, and deliver exceptional customer value. The financial services industry is constantly evolving, and only those who can correctly implement and manage AI in their operations will be best positioned for success.



To learn how we can help your organization reap the benefits of digital transformation, write to connect@nseit.com.

Source Links:

1. <https://us.nttdata.com/en/-/media/assets/white-paper/GFS-Research-Study-White-Paper-Final.pdf>
2. <https://www.alliedmarketresearch.com/finance-cloud-market-A12545>

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