



Big Tech and Securities Services: A Partnership-Driven Approach to Achieving Data and AI Goals

May 2026

pepper

DISCLAIMER

It is ISSA's intention that this report should be updated periodically. This document does not represent professional or legal advice and will be subject to changes in regulation, interpretation, or practice. None of the products, services, practices or standards referenced or set out in this report are intended to be prescriptive for Market Participants. Therefore, they should not be viewed as express or implied required market practice. Instead, they are meant to be informative reference points which may help Market Participants manage the challenges in today's securities services environment. Neither ISSA nor the members of ISSA's Working Group warrant the accuracy or completeness of the information or analysis contained in this report.



Table of Contents

Executive Summary	4
1. Introduction.....	5
2. Characteristics and Benefits of Strategic Partnerships Between Securities Services Providers and Big Tech firms	6
3. Areas Presenting the Best Opportunity for Partnership with Big Tech Firms	8
3.1 Technology Stack Modernization	8
3.2 Data, Analytics and AI	9
3.3 Digital Assets and Tokenisation	9
3.4 Cyber-Security	10
3.5 Marketplace Solutions.....	10
4. Critical preparatory steps to perform before starting partnership discussions	11
4.1 Strategic Objectives	11
4.2 Robust Data Foundation.....	12
4.3 Compliance and Security	12
4.4 Governance and Legal Preparedness	12
4.5 Financial and Investment Planning.....	13
4.6 Talent and Change Management Preparation	13
4.7 Security, Trust, Regulatory Compliance and Ethical AI Considerations.....	13
4.8 Ecosystem and Partnership Readiness	14
5. Partnership Key Challenges to Overcome and Risks to be Mitigated	15
5.1 Geopolitical Risks and Data Sovereignty	15
5.2 Third-Party Provider Lock-In Risk	15
5.3 Product Dependency	16
5.4 Data Readiness and Maturity	16
5.5 Standards, Interoperability, and Harmonization	16
5.6 Ethical AI considerations	17
5.7 Skills, Culture, and Organisational Evolution.....	17
5.8 Legal, Contractual, and Governance Maturity	17
6. Conclusion	18
Appendix.....	20

Executive Summary

This paper explores recent strategic partnerships between Securities Services Providers (including Banks and Financial Market Infrastructures) and Big Tech firms like Apple, Amazon, Google, Meta and Microsoft. It examines whether the trends in data analytics on their own, and as a foundation for making breakthroughs implementing AI, is driving the most traction around these new strategic partnerships. It also provides insights on how these partnerships are being approached and structured to gain the best impact.

As part of its research, the “Big Tech” Subgroup of the ISSA “Evolving Technologies and AI” Working Group (WG) interviewed executives at three ISSA member firms which have implemented strategic partnerships with a Big Tech Firm or one of the large new AI Firms:

- Deutsche Börse Group, regarding their partnership with Google Cloud
- Euroclear, regarding their partnership with Microsoft
- The Bank of New York, regarding their partnership with Open AI

In addition, the WG also spoke to representatives of Big Tech firms to understand their perspectives on such types of partnerships with these three member firms and with other firms across the financial services industry. Our finding is that there is a great deal of alignment on the structure and benefits of these partnerships between Securities Service Providers and the Big Tech firms.

Based on this research, this paper makes observations relevant for ISSA members considering such strategic partnerships in the following four areas:

- Characteristics and benefits of strategic partnerships between Securities Service Providers and Big Tech Firms.
- Areas presenting the best opportunity for partnership with Big Tech Firms
- Critical preparatory steps to perform before starting partnership discussions
- Partnership key challenges to overcome and risks to be mitigated

One key conclusion is that these partnerships are not merely about adopting new technologies, they are about co-creating the future of financial services. These partnerships enable institutions to modernize, innovate and transform in ways that would be difficult to achieve independently. As such, they represent a powerful model for industry-wide collaboration and long-term value creation.

1. Introduction

In its 2020 white paper on the “Future of Securities Services”,¹ ISSA documented trends and forces that it predicted would significantly impact the industry in the coming decade. One of those trends was potential “Industry Disruption by Big Tech”. In the paper, ISSA predicted that new entrants from the technology sector would enter capital markets and challenge incumbent business models, either by launching services on their existing market platforms, making acquisitions, or entering via partnerships with incumbents.

In ISSA’s 2024 Revision of the “Future of Securities Services” paper,² we examined activity in this space and determined that Big Tech firms had not directly entered the industry but had actively pursued partnerships. Looking forward, ISSA said:

- *Continued partnership opportunities will serve to increase the footprint of Big Tech firms in financial services, helping them to grow and diversify their revenue streams. ISSA foresees Big Tech firms and smaller Fintech firms continuing to focus their core capabilities and investments on developing financial market innovations able to be marketed to many financial services firms. ISSA foresees key participants in capital markets and Securities Services accelerating their partnerships with Big Tech firms and FinTechs in order to speed up their adoption of all key emerging technologies, including cloud, advanced data analytics, machine learning and AI.*

The aims of this paper are:

- To examine whether the trend on data and AI is driving the most traction around these new strategic partnerships
- To provide insights on how these partnerships are being approached and structured to gain the best impact

While it is too simplistic to consider such models as appropriate for all players in the industry, this paper looks to inform and advise ISSA members on how these partnerships are being used to create product differentiation and leadership momentum.

The “Big Tech” Subgroup of ISSA’s “Evolving Technologies and AI” Working Group recently interviewed the executives in charge of such partnerships at three ISSA Board Member firms. In this paper, some key insights are documented that may assist other ISSA member firms as they consider entering similar partnerships. The insights are organized in the next four sections as follows:

- Characteristics and benefits of strategic partnerships between Securities Service Providers and Big Tech firms.
- Areas presenting the best opportunity for partnership with Big Tech firms
- Critical preparatory steps to perform before starting partnership discussions
- Partnership key challenges to overcome and risks to be mitigated

¹ https://issanet.org/content/uploads/2013/04/ISSA_Future_of_the_Securities_Services_Industry_final_Nov20.pdf

² https://issanet.org/content/uploads/2024/09/ISSA-FOSS-Paper-2024_FINAL.pdf

2. Characteristics and Benefits of Strategic Partnerships Between Securities Services Providers and Big Tech firms

The Securities Services industry evolved in the 1980s largely through in-house development and systems. However, as industry change accelerated, many leading players introduced and expanded their use of external vendors. This enabled the industry to develop and maintain different specialist platforms to support the complex and broad suite of services offered to their clients.

The technology third-party provider model is now far reaching, and expansive, with almost no areas of the firm's technology totally untouched. This acknowledges both an appreciation that external service providers can contribute to the overall solution as well as a decision by firms about where to focus their own in-house resources for the highest impact.

However, these new strategic partnerships between Securities Service Providers and Big Tech firms represent a fundamental evolution in how technology is leveraged within the financial services industry. These partnerships go far beyond traditional third-party provider-client relationships, both in commercial and strategic relevance. They are characterized by a deep, symbiotic collaboration in which both parties' long-term success becomes intertwined. Rather than focusing solely on technology procurement, these alliances involve shared risk, joint investment and collaborative innovation. These alliances are aimed at transforming the very foundations of financial infrastructure and service delivery to design, implement and participate in the future digital market infrastructure.

One of the most distinguishing features of these partnerships is their capacity to enable strategic business transformation - across the full enterprise - truly knitting together existing silos. Securities Service Providers increasingly seek out Big Tech firms to access highly mature technical capabilities and an associated deep base of engineering talent. Achieving these capabilities requires significant capital investment and technical expertise - resources that are often beyond the reach of industry incumbents. These capabilities include scalable cloud infrastructure, advanced artificial intelligence (AI), data architecture and platform engineering. Big Tech firms bring not only the tools, but also the strategic insights needed to co-design solutions that address industry-specific challenges while positioning the firm to compete in the future. These capabilities assist financial institutions in modernizing legacy systems, improving operational resilience and delivering real-time, data-driven services.

Several other characteristics define these strategic partnerships. First, equity stakes and financial investment may be involved (or may be optioned for the future), aligning incentives beyond conventional vendor payments and reinforcing mutual commitment. Second, long-term exclusive or preferential or discounted access to cutting-edge technologies, such as deep research tools and sophisticated Large Language Models (LLMs), ensure that financial institutions remain at the forefront of innovation. Third, joint development and co-innovation are central to these relationships, with both parties co-designing and co-deploying solutions that are tailored to the evolving needs of the financial ecosystem.

Another defining feature is deep integration and platform embedding, which transforms core operations, rather than simply layering new tools onto existing systems. This level of integration enables Securities Services Providers to reimagine their business models, implement new digital trading and post-trade processing platforms, enter new markets and create new revenue streams.

Critical success factors are cultural integration and strategic alignment. These partnerships require trust, shared vision, and continuous communication. The collaboration must be seen not just as a technical engagement, but as a joint strategic journey. Many of these partnerships are structured around multi-year strategic cycles and involve co-leadership in development and deployment decisions. The Big Tech firm participates in management meetings and contributes to roadmap decisions, making it a true co-leader, rather than a service provider.

Moreover, these partnerships enable Securities Service Providers to redefine their roles within the broader digital ecosystem. As the industry moves toward tokenized assets, digital identity frameworks and AI-driven operations, strategic partnerships with Big Tech firms are extremely helpful for building the next generation of financial infrastructure. They allow Securities Services Providers to deliver intelligent, proactive services—such as predicting settlement failures and offering mitigation options—while also supporting broader goals like smart contract standardization and interoperability across blockchain protocols.

The Big Tech firms see the partnership journey similarly. That journey begins with a technology partnership around infrastructure, involving mainly the CIO and CTO. It then expands to business lines, to digitally transform the financial institution's services. Finally, the partnership moves more broadly with the entire firm to prepare it strategically for the new digital ecosystem the industry is driving towards. This requires a shared vision of that digital ecosystem and all its potential future scenarios.

In conclusion, strategic partnerships between Securities Service Providers and Big Tech firms are not merely about adopting new technologies. They are about co-creating the future of financial services. These partnerships enable institutions to modernize, innovate and transform in ways that would be difficult to achieve independently. As such, they represent a powerful model for industry-wide collaboration and long-term value creation.

3. Areas Presenting the Best Opportunity for Partnership with Big Tech Firms

These strategic partnerships have been essential within the following thematic areas:

- **Foundational:** Modernizing the technology stack and migrating to the cloud. This is the essential first step for agility and resilience
- **Value-Driving:** Leveraging data, analytics and AI to create predictive insights, improve decision-making and enhance client services
- **Future-Forward:** Exploring digital assets, tokenization and building next-generation marketplace solutions. These are for firms looking to lead and define future market structures

In more recent years, the accelerated focus on leveraging data and using AI to drive far more impactful insights has further extended the envelope of outsourcing and the nature of partnerships. To some extent it has now defined the models for truly strategic partnerships for the rest of the vendor community. Many of these strategic partnerships have recently been focused on the Big Tech firms (including Apple, Amazon, Google, Meta and Microsoft) and the leading AI firms (including Open AI and Anthropic).

So which areas of opportunity can drive the biggest impact from a strategic partnership between Securities Services Providers and Big Tech and AI firms? While the scale of investment in AI by those firms, and the perceived opportunity by Securities Service Providers, have led to these partnerships covering the entire enterprise, in the remainder of this section we will focus on five areas of opportunity for Securities Services Providers.

3.1 Technology Stack Modernization

Many systems used across the industry date back to the 1980s and, despite being functionally rich due to decades of ongoing investment, they are now facing end-of-life issues. This is due to resources to maintain them becoming scarcer as well as the move away from monolith systems to achieve greater speed, operating resilience and 24 x 7 processing. This has led, in many cases, to a shift to vendor and partner solutions. Initially this was viewed as a component outsource with in-house IT managing the vendor relationship, the platform integrations with other systems and databases, and the schedule of upgrades and deployment. Over time, stronger outcomes have been sought, with a demand for cloud hosting and deployment support and pre-integration with common neighbouring platforms. This has driven a focus on truly strategic partnerships that can deliver solutions bundling AI, Cyber-Risk mitigation, and Data Analytics leading to far stronger performance outcomes than a standalone component can achieve.³ Many firms are pursuing modernization based on their own strategic views of how the digital marketplace of the future may evolve.

It is therefore important that the chosen Big Tech partner understands the Securities Services Provider's view of the future marketplace and how the firm plans to compete in it and can demonstrate how its tools and capabilities can enable that.

³ <https://www.auxis.com/6-it-outsourcing-trends-impacting-2026-and-beyond/#:~:text=The%20Future%20of%20IT%20Outsourcing,%2C%20skills%2Ddriven%20partnership%20model>

3.2 Data, Analytics and AI

One key area that has driven the new strategic partnerships between Securities Services providers and Big Tech firms has been around Data and AI. Securities Services Providers today handle massive quantities of data across custody and fund services. The expansion of regulatory reporting requirements and the growing demand for predictive insights from clients have caused this area to be a key focus for strategic partnerships.

The scope of these partnerships initially focused on a shift away from dedicated, fixed capacity, “on-premises” server networks, to public cloud providers and partnership with the main group of “hyper-scalers”. The target benefits were not only the ability to consume data and system processing capacity on a flexible basis, but also the ability to connect with other data communities and suppliers to drive the demand for broader insights, driven by core and alternative data sets. Coupled with this was the move away from segregated core processing platform data to holistic and integrated data platforms across the enterprise. This enabled Securities Services Providers to join up client experience between business divisions and ensure that a single version of truth can be presented, regardless of potential data conflicts in the underlying processing systems.

However, the key shift into partnerships has strongly focused on the use of AI and Data Analytics, both in terms of developing a range of financial service use cases, as well as predictive analytics and more complex decision insights where broader sets of external data are sourced and consumed in these tools, through standard API interactions. Predictive analytics require extensive retention of historical data to drive the machine learning outcomes, shifting the viewpoint on data access in categories that used to be actively archived. The ability for a strategic cloud agenda to provide efficient data sourcing and tools for AI and advanced data analytics are pushing the boundaries of the original cloud outsourcing concept.

Most AI tools require a massive expansion in data access, which is in turn driving the focus on cloud and efficient data storage and access. However, this comes at a significant incremental cost and the opportunities for collaborative strategic partnerships are not only a means to managing this cost but sharing the investment in research and innovation, as we seek higher outcomes from these tools.

3.3 Digital Assets and Tokenisation

This is not a new area for technology investment and partnership. However, we are finally seeing growing traction as the regulatory environment becomes more conducive and industry use cases become more viable.

Partnerships have evolved with technology firms who can bring solutions covering:

- Secure digital wallet and key management solutions
- Connectivity with DLT-based market infrastructures and digital asset custodians
- Tokenization platforms, including around smart contract integrations for tokenized and native digital assets

There is growing acceptance that growth in these capabilities requires a very high level of interoperability with traditional securities platforms. Whilst the industry pushes for standards in communication and processing, this interoperability requirement will remain a high area of investment to connect a disbursed ecosystem and network of service providers and digital asset exchanges.

3.4 Cyber-Security

The focus on cyber-resilience continues to grow and this is leading to firms exploring partnerships with specialist firms that provide tools that enhance security operations capabilities and threat intelligence. The expanded set of regulations around Operational Resilience (e.g., the EU Digital Operational Resilience Act) demand stronger real-time detection of threats, response capabilities, resilience testing and reporting. These requirements have pushed firms to look at enhancing Disaster Recovery/Business Continuity, Identity and Access Management (IAM) solutions as well as Quantum-resistant encryption capabilities.

3.5 Marketplace Solutions

As well as home-developed solutions, some Securities Services Providers have moved towards the inclusion of third-party provider solutions. This has included an expanded use of fintech and other partnership tools, which are accessible by clients. These solutions can offer a high level of data integration to allow clients to use a range of Partner Tools provided through a Securities Services Partner Marketplace.

These have also, in some cases, extended the range of capabilities on offer to clients and offer an alternative to Securities Services Providers who do not require products being careful branded and controlled.^{4 5}

⁴ <https://www.business.hsbc.com/en-gb/products/marketspace>

⁵ <https://marketplace.bnymellon.com/app/open/about>

4. Critical preparatory steps to perform before starting partnership discussions

While Big Tech partnerships can significantly accelerate the expansion of a Securities Services Provider's AI and Data capabilities, success requires a very high degree of organizational readiness. The organizations that succeed are those that:

- Enter these alliances with clear business strategies
- Employ measurable objectives for the partnership
- Develop robust governance
- Start with a strong data foundation
- Engage their workforce in preparing to embrace change

Before signing any partnership agreement, organizations must ensure they are prepared internally. These partnerships are not simply third-party provider engagements. They are strategic alliances that demand considerable organizational readiness. Without the necessary internal preparations, companies might face:

- Misalignment between business objectives and partnership outcomes
- Under-utilization of advanced AI and cloud capabilities due to skill gaps
- Data governance issues that slow down adoption or trigger compliance risks
- Financial overruns because total costs were underestimated
- Cultural resistance to change that prevents scaling of new solutions

Below are the key preparatory steps organizations should take before partnering with a Big Tech firm or other major technology provider for innovation and AI adoption.

4.1 Strategic Objectives

Before entering a partnership with a Big Tech firm, it is essential to establish clear strategic objectives. Organizations must begin with clarity of purpose, identifying the primary drivers for collaboration. This is key, whether it is adopting AI solutions, modernizing infrastructure, scaling products to new markets or leveraging cutting-edge research and development. This clarity ensures that the partnership is not pursued as a trend, but as a deliberate step toward business growth.

Equally important is business alignment, where the objectives of the partnership tie directly into the organization's broader overall business strategy, digital transformation roadmap, customer experience priorities, and long-term market ambitions, including how the firm wishes to be positioned in the future digital market infrastructure. Finally, success must be defined upfront through measurable outcomes such as reduced time-to-market, cost optimization, or new revenue opportunities from AI-driven innovation, ensuring accountability and focus throughout the collaboration.

4.2 Robust Data Foundation

A successful partnership with a Big Tech firm depends on building a robust data foundation, as data is the core enabler of AI and digital transformation and AI models and advanced analytics are only as reliable as the data they access and are trained on. This begins with enterprise-wide data quality, governance and analytics practices, ensuring that information throughout the enterprise is accurate, consistent, accessible, and managed under clear policies. This is a significant challenge for large financial services firms assembled through multiple mergers and acquisitions of firms with disparate data sets and data architectures.

While advanced maturity in all these capabilities is a significant advantage in advancing in AI, having a clear view of current capabilities can enable a Big Tech firm to assist in creating a plan to increase the maturity over an accelerated time period or implementing AI in ways that works with the firm's data in its current state, as the maturity evolves. A key area of investment to ensure that the organization's data house is in order is adopting a modern digital data architecture to transform separate pools of data into intelligence. This does not mean moving all the enterprise's data into one place, but using new capabilities to make it function as if it was all standardized and in one place with a 360-degree view of the data and total knowledge of its provenance, governance, quality, etc. All of this, with formal Data Governance over all the data, not just "critical data".

4.3 Compliance and Security

Equally critical is compliance and security, where organizations must reinforce privacy protections, strengthen cybersecurity and adhere to regulations. These include regulations such as the EU General Data Protection Regulation, the US Health Insurance Portability and Accountability Act and local data residency laws to safeguard both trust and legal standing. Securities Services Providers must prove to their regulators that the environment and data subject to the partnership are secure. Finally, interoperability plays a pivotal role, requiring well-designed APIs, integration layers and scalable architectures that allow seamless collaboration with Big Tech firms, hyper-scalers and AI ecosystems, enabling innovation to flow without technical barriers. Big Tech firms know they are increasingly being seen as critical service providers for the core services of financial institutions and they are open to the oversight that entails.

4.4 Governance and Legal Preparedness

Strong governance and legal preparedness are critical to ensuring that partnerships with Big Tech firms create value, while minimizing risk. Organizations must establish clear policies around intellectual property and ownership, defining how rights will be handled for co-created solutions and ensuring clarity on joint IP arrangements to prevent future disputes. At the same time, risk and compliance considerations require thorough contract reviews, addressing liability, indemnities and adherence to regulatory obligations. Beyond legal safeguards, a well-structured third-party provider governance model should be in place to monitor partner performance, track adherence to service levels and evaluate innovation outcomes. This will ensure the collaboration remains aligned with strategic goals and delivers sustained benefits over time.

4.5 Financial and Investment Planning

Effective financial and investment planning is essential to maximize the value of a partnership with a Big Tech firm or one of the new AI technology providers. Organizations must carefully model the total cost of ownership (TCO), accounting not only for obvious expenses like compute power and storage, but also for hidden costs such as data egress fees, licencing and ongoing support. In many cases, total costs will significantly increase due to the complexity of managing multiple platforms before transformation drives elimination of costly legacy technologies and processes.

Beyond technology, adequate investment capacity should be allocated to critical enablers like workforce training, structured change management and governance mechanisms that ensure sustainable adoption. Finally, organizations need to establish clear ROI models, balancing short-term efficiency gains with long-term value creation, whether through cost optimization, accelerated time-to-market or new revenue streams enabled by AI and cloud innovation. This disciplined financial approach ensures that partnerships remain both impactful and commercially viable.

4.6 Talent and Change Management Preparation

It is critical to understand the level of culture change a successful partnership with a Big Tech firm will require. Building organizational capability through talent and change management is vital to realize the full potential of partnerships with Big Tech firms. A well-defined upskilling strategy should focus on equipping employees with critical skills in Cloud, AI, and other emerging technologies, ensuring the workforce can actively contribute to and sustain innovation.

Equally important is leadership alignment, where senior executives provide sponsorship, direction and visible support, reinforcing that the partnership is a strategic priority for the organization. To complement these efforts, robust change adoption strategies are needed, including clear communication plans, employee engagement initiatives and support structures that reduce resistance and foster a culture of adaptability. Together, these elements create an environment where technology adoption is embraced, and innovation can scale effectively.

4.7 Security, Trust, Regulatory Compliance and Ethical AI Considerations

Establishing strong safeguards around security, trust, regulatory compliance and ethical AI is fundamental when partnering with Big Tech firms or the new AI technology providers. Organizations must first define an AI ethics framework, setting clear principles for responsible AI use that address bias mitigation, fairness and transparency to ensure innovation is deployed responsibly and meets regulatory expectations. At the same time, the enterprise's security posture must be strengthened, with robust cybersecurity measures that align with technology standards and protect against evolving threats. Finally, implementing trust models, including explainable AI practices, auditability, and accountability, helps build confidence among stakeholders and clients that AI-driven solutions are both reliable and ethical. Together, these measures establish the foundation of trust necessary for scaling innovation in a secure and responsible manner.

4.8 Ecosystem and Partnership Readiness

Achieving ecosystem and partnership readiness ensures that collaborations with Big Tech firms and AI technology providers deliver value beyond the contract. Internally, organizations must create a clear stakeholder map, defining which teams - whether IT, business units, or innovation hubs - will own and manage the partnership to drive accountability and momentum. Externally, it is important to evaluate the ecosystem fit, identifying how the new alliance complements existing partnerships with startups, industry consortia or academic collaborations, thereby creating a broader network of innovation. Understanding how a firm's current and future clients are investing in the technologies provided by a potential Big Tech partner is an important consideration.

Finally, a scalability check is critical to confirm that internal teams, processes and systems are prepared to absorb and expand the solutions introduced by the partner. Together, these steps position the organization to fully leverage the partnership and sustain innovation at scale.

5. Partnership Key Challenges to Overcome and Risks to be Mitigated

While partnerships with Big Tech firms promise significant benefits, any collaboration of such depth and scale inevitably raises challenges that must be navigated carefully. This section identifies areas requiring enhanced attention. The emphasis here is not on total risk avoidance but on careful risk management and capability building towards achieving data and AI goals for the industry.

5.1 Geopolitical Risks and Data Sovereignty

In an interconnected world, geopolitical and regulatory contexts inevitably have a direct effect on partnerships with multinational corporations. Securities Service Providers must navigate differing legal frameworks, data localization rules and trade dynamics. This may not only create regulatory misalignment, but the possibility that tensions between jurisdictions could lead to sudden changes in data transfer rules, export restrictions or sanctions that affect service continuity. While these issues are complex, they are increasingly at the front of mind of both regulators and Big Tech firms (Reuters, 2024).⁶

Many Big Tech firms now offer sovereign cloud options that ensure sensitive data remains within specific jurisdictions, with control limited to authorised personnel. Similarly, data residency guarantees, local encryption key management and compliance certifications (e.g., GDPR adherence) are becoming standard components of partnership agreements. Ultimately, geopolitical risk management is not about avoidance but preparedness. By designing systems for regional redundancy and maintaining strong governance, firms can achieve both compliance and agility in a multipolar digital landscape.

5.2 Third-Party Provider Lock-In Risk

One of the more obvious challenges firms encounter when partnering with Big Tech firms is managing third-party provider lock-in. Deep integration with a single cloud or ecosystem can create dependencies that complicate future migration or diversification options. However, lock-in risk is not new, as firms dependent on legacy Mainframes have long faced a similar problem of vendor dependence. Rather than viewing it as a prohibitive risk, it should be viewed as a part of adjusting to a new normal, as more digital services are developed on the cloud. This will require special emphasis on sound architectural planning that requires adopting hybrid and multi-cloud architectures, using open standards and containerization technologies to maintain flexibility (Gartner, 2024).⁷ Moreover, the market itself is evolving as the Big Tech firms claim to increasingly support portability and interoperability to meet growing regulatory and client expectations. In this light, third-party provider lock-in should not be seen as an inherent risk but as an engineering constraint, which can be managed with diversification and exit planning.

⁶ <https://www.reuters.com/technology/banks-say-growing-reliance-big-tech-ai-carries-new-risks-2024-06-07/>

⁷ <https://www.cio.com/article/1257417/cios-weigh-the-new-economics-and-risks-of-cloud-lock-in.html>

5.3 Product Dependency

Closely related to third-party provider lock-in is product dependency, via the reliance on specific services or APIs. In earlier stages of cloud adoption, such dependencies were seen as rigid constraints. Today, however, they are more often viewed as strategic enablers that, when balanced appropriately, allow institutions to scale innovation faster.

Big Tech firms increasingly design modular ecosystems with robust backward compatibility, allowing Securities Services Providers to evolve alongside them without undue disruption. Securities Service Providers, in turn, are learning to create abstraction layers and data fabrics that allow them to integrate external services without losing architectural independence.

We believe there is an opportunity here for the firms that treat Big Tech firms as co-innovation partners, rather than just tech vendors. By engaging in joint product co-creation, firms can align their digital strategies with data and AI evolution. Dependency then becomes less about constraint and more about symbiotic growth.

5.4 Data Readiness and Maturity

The foundation of any successful AI transformation lies in data readiness. Many Securities Service Providers acknowledge that while their legacy systems provide vast historical data, that data is often fragmented or inconsistent. Rather than framing this as a barrier, firms now see it as an opportunity to modernise their data infrastructure and governance practices.

Securities Services Providers that invest early in data quality, lineage, and metadata management quickly build competitive advantage (Deloitte, 2024).⁸ When these practices are standardized across the enterprise, they enable scalable machine learning pipelines and regulatory traceability. Big Tech firms can accelerate this process by providing modern data-lake architectures, automated data-cleaning tools and governance frameworks aligned with international best practice.

5.5 Standards, Interoperability, and Harmonization

Historically, one of the greatest obstacles to large-scale cloud adoption was the lack of consistent interoperability between platforms. Each Big Tech firm offered distinct APIs and metadata structures, creating fragmentation. Yet the past two years have seen meaningful progress towards open standards and data harmonization across the industry.

Several of the well published strategic partnerships illustrate many aspects of this shift which allows models and datasets to move more easily between platforms. These developments demonstrate that standardization is no longer aspirational but in fact it is actively being implemented.

Banks and FMIs are increasingly participating in these initiatives, helping to define global norms for model documentation, explainability and data lineage. In the process, they are shaping a more transparent and collaborative AI ecosystem. Harmonization, therefore, is not simply a compliance exercise but a strategic enabler of innovation, resilience and fair competition.

⁸ <https://www.deloitte.com/us/en/services/consulting/articles/data-preparation-for-ai.html>

5.6 Ethical AI considerations

As AI becomes central to financial decision-making, ethical and reputational risks emerge as major concerns. One of the challenges is opacity. Many Big Tech AI services operate as “black boxes,” limiting transparency into how decisions are made. Financial regulators increasingly require explainability in algorithmic systems, especially where client outcomes are affected (European Commission, 2024).⁹ Using opaque models could therefore expose firms to regulatory sanction as well as public criticism.

Public perception also matters. Clients may feel uneasy about their financial data being processed by technology firms known for aggressive data monetization. Institutions must therefore maintain transparent communication about data usage and ensure AI systems meet high ethical standards. Independent fairness audits, bias testing and explainability frameworks are vital mitigation measures.

5.7 Skills, Culture, and Organisational Evolution

Perhaps one of the most transformative aspects of Big Tech partnerships lies in people and culture. However, firms often under-estimate the culture and people skills shift that is needed to make the most of their partnerships with Big Techs. Through training programmes, co-innovation labs and joint engineering projects, financial institutions can develop new capabilities faster than ever before (Capgemini, 2023).¹⁰

Cultural alignment is critical for success, with both the C-suite and other staff members impacted by the partnership united in a vision for the business that the capabilities provided by the partnership are necessary to deliver on. All staff know what future success looks like, both for the firm and for themselves as contributors.

Rather than causing skills erosion, if approached in the right way, these partnerships can act as talent accelerators by exposing in-house teams to frontier technologies and best-practice engineering disciplines. Securities Service Providers are also evolving culturally, adopting agile methodologies, encouraging experimentation and integrating data science into decision making.

5.8 Legal, Contractual, and Governance Maturity

Legal frameworks for Big Tech partnerships are still evolving. Many contracts limit third-party provider liability to the value of annual service fees, which would be inadequate for potential losses from an AI or cloud driven incidents. Jurisdictional ambiguity further complicates matters as disputes are often governed by the Big Tech firm’s domestic law (e.g., almost always law of the United States) which may differ from the local laws and regulations (e.g., Clarifying Lawful Overseas Use of Data Act, Digital Operational Resilience Act, General Data Protection Regulation).

Another persistent issue is audit access. Regulators require Securities Services Providers to demonstrate oversight of critical third-party vendors. Therefore, negotiating contractual rights to obtain compliance reports, third-party audits and regulator access is therefore crucial to maintain transparency and meet supervisory expectations.

⁹ <https://artificialintelligenceact.eu/>

¹⁰ <https://www.capgemini.com/insights/research-library/top-trends-in-retail-banking-2023/>

6. Conclusion

Strategic partnerships between Securities Service Providers and Big Tech firms are moving forward successfully and are expected to accelerate. The massive investments these technology firms have made in infrastructure at scale, data architecture and analytics and in developing Generative AI models and Agentic AI-based services, can all be leveraged by the Securities Services industry through carefully structured strategic partnerships. The Securities Services industry need not fear these Big Tech firms offering financial services directly to clients in competition with incumbents. Rather, they are expanding and diversifying their revenue footprint into via partnerships with incumbents, sharing in their future success in the digital marketplace.

These partnerships are not merely about adopting new technologies, they are about co-creating the future of financial services. These partnerships enable institutions to modernize, innovate and transform in ways that would be difficult to achieve independently. As such, they represent a powerful model for industry-wide collaboration and long-term value creation.

This paper presents ISSA's insights on four aspects of successful strategic partnerships with Big Tech and AI firms to help firms which are contemplating such partnerships to maximize the value of them. Some key insights are outlined below.

Compelling Benefits

These partnerships have compelling benefits including:

- Enabling strategic business transformation, across the full enterprise, truly knitting together existing silos
- Deep integration and platform embedding, which transforms core operations rather than simply layering new tools onto existing systems
- Enabling Securities Services Providers to redefine their roles within the broader digital ecosystem

Multiple Collaboration Opportunities

Key areas for collaboration are:

- Tech stack modernization
- Data Analytics and AI
- Digital assets and tokenization
- Cyber security
- Marketplace solutions

Preparation is Crucial

Some key preparatory steps prior to entering these types of strategic partnerships include:

- Establishing clear strategic objectives, including the primary drivers for collaboration
- Building a robust data foundation, as data is the core enabler of AI and digital transformation and AI models and advanced analytics are only as reliable as the data they access and are trained on

Risk Mitigation is Possible

There are challenges and risks, all of which can be overcome and mitigated including:

- Geopolitical risk and data sovereignty
- Vendor lock-in risk/product dependency
- Data readiness and maturity

As more such partnerships are implemented, and their impact on Capital Markets and Securities Services becomes clearer, ISSA's "Evolving Technology and AI" WG will explore whether a formal set of Partnership Best Practices can be developed, especially for the Securities Services part of the industry.

Appendix

Members of Big Tech Subgroup of the Evolving Technologies and AI Working Group

Gagan Arora	S&P Global
Vic Arulchandran	Deutsche Börse Group
Min Chen	Hong Kong Exchanges and Clearing Limited
Jan Doser	Deutsche Börse Group
Giles Elliott	Tata Group
Glen Fernandes	Euroclear
Patrick Kropp	Deutsche Börse Group
Simon Shepherd	MYRIAD Group Technologies Ltd
Juerg Unger	Swiss Re Ltd