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ripple

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Submitted via email: tokenisation@bnm.gov.my

Asset Tokenisation in the Financial Sector: Feedback from Ripple

Dear Sir/Madam,

Ripple Labs Inc. ("Ripple")[1] welcomes the opportunity to provide feedback on the Bank Negara Malaysia's ("BNM") Discussion Paper on Asset Tokenisation in the Malaysian Financial Sector[2] (the "Discussion Paper"), published on 30 October 2025.

Ripple wishes to thank BNM for the in-depth and comprehensive analysis undertaken in drafting this Discussion Paper, as well as for the opportunity to provide our perspective. Ripple remains proactive in contributing to industry knowledge and policy development within this sector, having recently engaged with the Securities Commission ("SC") Malaysia and released a comprehensive research paper in collaboration with the Boston Consulting Group ("BCG").

- In April 2025, Ripple, in partnership with BCG, published a report on tokenisation[3] which highlights that the financial industry is undergoing a significant transformation as tokenisation reshapes traditional asset management. By converting assets into programmable, interoperable digital tokens recorded on shared ledgers, financial systems are becoming more efficient, accessible, and responsive to modern market demands.

[1] Founded in 2012, Ripple is the leading provider of blockchain-based enterprise solutions across traditional and digital finance. Its solutions span global payments, custody, liquidity, and treasury management, serving as a one-stop shop for moving, storing, exchanging, and managing value. Ripple's stablecoin, RLUSD, and the cryptocurrency XRP underpinning these solutions allow Ripple and its customers to shape the modern financial system. Learn more at ripple.com.
[2] See https://www.bnm.gov.my/documents/20124/938039/Discussion_Paper_on_Asset_Tokenisation.pdf, *Digitalisation in Financial Services: Asset Tokenisation in the Malaysian Financial Sector.*
[3] See https://ripple.com/reports/approaching-tokenization-at-the-tipping-point.pdf, *Approaching the Tokenization Tipping Point.*

- On 16 June 2025, Ripple responded[4] to the SC Public Consultation Paper No. 1/2025: Proposed Regulatory Framework for Offering and Dealing in Tokenised Capital Market Products[5]. It is encouraging to see that BNM is also considering how the financial sector can harness the potential of tokenisation. We respectfully request that you take this response into consideration as you develop policy directions and amendments to the regulatory regime.

The policy implications of this transformation are critical, and will require regulators and policymakers to develop regulatory frameworks that:

- Support Regulatory Harmonisation: Developing clear and consistent regulations across jurisdictions is crucial to facilitate the growth of tokenised markets.
- Invest in Infrastructure Development: Investing in robust digital infrastructures, including custody solutions and interoperable platforms, will support the scalability of tokenisation.
- Enhance Public-Private Collaboration: Engaging with industry stakeholders to establish standards and best practices will ensure the secure and efficient implementation of tokenisation technologies.

In responding to this discussion paper, we wish to bring attention to the following key themes:

1. Licensing Pathways and Innovation Hubs: Ripple is encouraged by the BNM's initiative for a Digital Asset Innovation Hub ("DAIH") and respectfully requests that as part of this, the BNM considers setting out a clear and productive path to show how participants can move from a sandbox testing stage to full licensing. We encourage BNM to draw on learnings from global peers, benchmarking against both successful implementations and unsuccessful attempts to ensure a more holistic regulatory outcome.
2. Ecosystem and Secondary Market Growth: It is essential for the development of a secondary market and digital asset ecosystem to go hand in hand with the development of a regulatory framework for

[4] See https://ripple.com/files/Ripple%20submission%20to%20the%20Malaysia%20SC%20Public%20Consultation%20Paper%20%E2%80%93%20Proposed%20Regulatory%20Framework%20for%20Offering%20and%20Dealing%20in%20Tokenised%20Capital%20Market%20Products.pdf, *Ripple submission to the Malaysia SC Public Consultation Paper – Proposed Regulatory Framework for Offering and Dealing in Tokenised Capital Market Products.*

[5] See https://www.sc.com.my/api/documentms/download.ashx?id=5a9a10e2-5872-4b48-9ea3-5b9635cc5179, *Public Consultation Paper No. 1/2025: Proposed Regulatory Framework for Offering and Dealing in Tokenised Capital Market Products.*

tokenised assets. Without development in these areas, services necessary for the industry to operate effectively will not exist and will likely render any regime redundant.

3. Settlement Asset Neutrality: In order for a tokenisation regulatory framework to achieve maximum effectiveness, it is important for the BNM to remain agnostic in relation to the types of settlement assets available and permitted for use. By allowing the use of stablecoins alongside tokenised deposits or even Central Bank Digital Currencies ("CBDCs"), the BNM will be promoting better cross-border interoperability, greater efficiencies and scale, and flexibility across the industry.
4. Risk-based Approach: Rather than restricting tokenisation to financial instruments only, the BNM should employ a risk-based approach to assessing whether an asset should be tokenised. By establishing criteria rather than defining a strict set of assets, tokenisation can evolve based on market needs rather than being constrained to a classification of approved assets.
5. Unified BNM and SC Approach: To capture the full economic benefits of tokenised financial markets, close coordination between BNM and the SC will be essential. Tokenisation has implications that cut across capital markets regulation, payment systems oversight and monetary policy. A coherent and aligned roadmap between BNM and the SC can provide legal certainty, reduce regulatory fragmentation and support the development of trusted digital market infrastructure.

We welcome the opportunity for ongoing engagement with BNM on the regulatory regime for asset tokenisation in the Malaysian financial sector. Should BNM wish to discuss any of the points raised as part of this feedback, please do not hesitate to contact Rahul Advani (Global Co-Head of Policy) at radvani@ripple.com and Caren Tso (Policy Manager, APAC) at ctso@ripple.com.

Sincerely,
Ripple Labs Inc.

APPENDIX

Ripple respectfully submits the following responses to the questions in the Discussion Paper:

Q1: What are your views on BNM's co-creation approach for asset tokenisation exploration? How can co-creation be structured to better support alignment between innovation and regulatory objectives?

Ripple welcomes BNM's initiative to convene regulators, industry participants, and stakeholders through collaborative models like the DAIH and the Asset Tokenisation Industry Working Group ("IWG"). These initiatives are essential for aligning innovation with policy goals and scaling tokenised markets. We support BNM's co-creation approach, which correctly identifies that the legal, operational, and systemic complexities of tokenisation cannot be addressed in isolation. The three-year roadmap provides a vital period for capacity building and live testing.

While the DAIH has accelerated stakeholder engagement, Ripple advocates for a clear pathway from sandbox testing to full licensing. BNM's roadmap should include incremental milestones and consistent communication to ensure regulators and FinTech firms progress at a synchronized pace. To support this alignment, we offer several recommendations for the structure of co-creation:

1. Active Case Management and Empirical Feedback Integration

We propose a model where regulators and industry participants work together to resolve technical and legal frictions in real time. This moves away from traditional "exemption" mechanisms toward a collaborative design process. Within this framework, regulators and financial service providers ("FSPs") can address friction points, such as smart contract enforceability or Shariah-compliant logic, during the development phase.

Data generated during the 2026 Proof-of-Concept ("POC") phase should serve as the foundation for modernising the Financial Services Act 2013 ("FSA")[6] and Islamic Financial Services Act 2013 ("IFSA")[7]. By treating the DAIH as a laboratory for policy development, BNM can ensure legislative updates are grounded in the practical realities of DLT, reducing the compliance burden for the broader ecosystem.

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[6]See https://www.bnm.gov.my/documents/20124/820862/Financial+Services+Act+2013.pdf, *Laws of Malaysia: Act 758 – Financial Services Act 2013.*

[7] See https://www.bnm.gov.my/documents/20124/8102422b-e6dd-d149-8db0-e3637e89ed5c, *Laws of Malaysia: Act 759 – Islamic Financial Services Act 2013.*

2. International Benchmarking

Any innovation and sandbox developments should draw lessons from international efforts, such as the European Union's ("EU") Distributed Ledger Technology ("DLT") Pilot Regime[8], the United Kingdom's ("UK") Digital Securities Sandbox ("DSS")[9], and Singapore's Project Guardian[10].

- DLT Pilot Regime by the European Securities and Markets Authority ("ESMA"): In the EU, this regulatory sandbox has attracted little to no engagement from industry for a number of reasons, primarily because of the low thresholds that have been set for trading, the lack of available digital money arrangements such as fiat-backed stablecoins, and the requirement to establish a central securities depository, which has effectively prohibited credit institutions and investment firms from participating.
- DSS by the Bank of England ("BoE"): In the UK, the DSS has focused on fostering innovation by providing a controlled environment for testing DLT solutions within financial market infrastructures ("FMIs"). By allowing FMIs to trial new tokenised business models under a modified regulatory framework and clearly outlining progression stages, the UK ensures structured and gradual development while minimising systemic risk.
- Project Guardian by the Monetary Authority of Singapore ("MAS"): In Singapore, Project Guardian is a leading example of how regulatory sandboxes can drive tokenisation. This collaborative initiative allows financial institutions to experiment with tokenisation, thereby enhancing market liquidity and efficiency. By bringing together key players from the finance and technology sectors, Project Guardian explores the use of DLT in the tokenisation of financial assets, such as digital bonds and other securities.

3. Long-Term Sustainable Development and Legal Finality

Co-creation should ultimately establish a robust legal foundation for settlement finality in decentralised environments. The framework should align DLT with contract law, property rights, and clearing mechanisms. This includes ensuring that "atomic settlement" on-chain is recognised as a legally irrevocable transfer of title under Malaysian law. Addressing these foundational questions through the DAIH will foster innovation and instill the trust necessary for market growth.

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[8] See https://www.esma.europa.eu/esmas-activities/digital-finance-and-innovation/dlt-pilot-regime, *DLT Pilot Regime.*
[9] See https://www.bankofengland.co.uk/financial-stability/digital-securities-sandbox, *Digital Securities Sandbox (DSS).*
[10] See https://www.mas.gov.sg/schemes-and-initiatives/project-guardian, *Project Guardian.*

Q2: What practical challenges and key enablers does your institution anticipate in implementing asset tokenisation initiatives? What factors would help accelerate industry readiness to scale tokenisation responsibly?

Ripple has identified several critical operational and legal pillars essential for the successful scalability of asset tokenisation in Malaysia. Addressing these through targeted enablers, from infrastructure to legal clarity, is key to creating a resilient market for domestic and international participants.

1. Secondary Markets

Secondary markets play a vital role in ensuring liquidity and price discovery, making them essential for the success of tokenised asset trading. To maximise the benefits of tokenisation, it is necessary to establish the following components within the secondary market:

- Demand-Side Factors: Investor participation and institutional adoption drive liquidity. Factors such as ease of access, interoperability with traditional financial systems, and efficient trading mechanisms influence the demand for tokenised assets.
- Supply-Side Factors: The availability of tokenised assets on secondary markets is critical. This requires issuers, market makers, and liquidity providers to facilitate smooth trading.

It is important to emphasise that liquidity is fundamental to the effective utilisation of capital market products; this is where tokenisation offers meaningful benefits. The value of tokenising assets lies not merely in representing them on a blockchain, but in removing the frictions that impede their practical use. These frictions span the full lifecycle of an asset, from subscription and redemption processes to secure custody and advanced use cases such as the deployment of assets as collateral. For instance, tokenised assets are unlikely to be accepted as collateral if there is no underlying market liquidity. Therefore, enabling liquidity should be a central consideration in any regulatory framework.

An example where such an initiative has fallen short is the Qatar Financial Centre ("QFC") tokenisation regime within its Digital Assets Framework 2024[11]. The framework was established without prior infrastructure for secondary markets. As the QFC has struggled to operationalise this regime, it has become

[11] See https://www.qfc.qa/en/media-centre/news/list/qatar-financial-centre-issues-qfc-digital-assets-framework-2024, *Qatar Financial Centre Issues QFC Digital Assets Framework 2024.*

clear that a successful tokenisation framework requires an operational secondary market and a virtual asset ecosystem (including exchanges, insurance, and software providers capable of providing on-chain settlement assets).

Ripple also believes that fiat-backed stablecoins would offer a low-risk enabler to capitalise on the full potential of tokenisation by providing an effective means of settlement. BNM should focus on a comprehensive ecosystem that integrates regulated trading platforms, custodians, and compliance frameworks, with fiat-backed stablecoins serving as a low-risk enabler for efficient on-chain settlement.

2. Legal Ownership

Clarity regarding the legal and beneficial title of tokens is a critical enabler. Currently, Malaysian ownership rights are governed through centralised registers or depositories in the Capital Markets and Services Act 2007 ("CMSA")[12] and the Securities Industry (Central Depositories) Act 1991 ("SICDA")[13]. These statutes remain silent on the legal status of tokenised representations and do not grant DLT-based records the standing of a statutory register for the purposes of evidencing legal title. Consequently, any initiative should set clear parameters on the legal status of tokenised records, particularly where discrepancies may arise between on-chain records and statutory registers.

The ownership structure of the asset (i.e., the ease of verifying ownership) is a key element in determining the suitability of an asset for tokenisation. We believe the frame is best suited to assets with simple title registries that do not require additional due diligence mechanisms to determine ownership, as these can complicate the legal framework.

We also note that the SC is developing a regulatory framework for tokenised capital market products using a phased approach that begins with digital twin structures, where a token represents an existing regulated security. While this is a prudent transitional step, longer-term scalability will depend on greater clarity regarding the legal status of on-chain records.

[12] See https://www.sc.com.my/regulation/acts/capital-markets-and-services-act-2007, *Capital Markets and Services Act 2007.*
[13] See https://www.sc.com.my/api/documentms/download.ashx?id=117ea46e-044f-4f7f-b3ba-6afb236bcac3, *Act 453: Securities Industry (Central Depositories) Act 1991.*

To support this evolution, closer coordination between BNM and the SC would be beneficial in establishing clear parameters for the recognition of distributed ledger records. Specifically, guidance on the evidentiary standing of on-chain registers and the treatment of beneficial ownership would reduce uncertainty and help ensure that tokenised instruments confer rights equivalent to their traditional counterparts. Such clarity is critical to maintaining investor protection and institutional confidence as Malaysia progresses toward more advanced tokenisation models.

3. On-chain Settlement and Asset Interoperability

To achieve the intended outcome of real-time, 24/7 atomic settlement, Malaysia requires a robust on-chain settlement infrastructure that eliminates the dependency on legacy payment rails. Ripple strongly recommends a technology-agnostic regulatory framework that permits a diverse range of settlement assets, including CBDCs, tokenised deposits, and fiat-backed stablecoins. Traditional fiat settlement introduces temporal mismatches and legacy frictions. In contrast, assets like fiat-backed stablecoins enable the synchronised exchange of value and assets, preserving the 'atomic' nature of DLT. By permitting this flexibility, BNM will ensure better cross-border interoperability and enable Malaysian financial service providers to compete effectively in a global digital economy.

4. Settlement Finality

A major challenge in using an on-chain token model relates to investor protection and the concept of settlement finality. Ensuring that a transaction will be completed, even during a financial crisis or counterparty insolvency, becomes a technological problem on-chain. Unless specified at the protocol level in smart contracts, finality may not be guaranteed. Regulatory frameworks must address how such solutions should be required to ensure investors are protected, thereby promoting wider institutional uptake.

5. Market Surveillance

Consideration should be given to the market surveillance challenges presented by on-chain trading, where assets are borderless and traded across multiple venues. While blockchain analytic tools help mitigate this, surveilling multiple channels requires considerably more resources than traditional stock exchanges. Without effective surveillance, participants cannot be confident in the data, potentially leading to institutional withdrawal, reduced liquidity, and higher costs.

6. Transparency

A practical challenge relates to the transparency of risks associated with the underlying asset. For example, purchasing a token representing a fractionalised amount of real estate may not provide insight into the physical condition of that property. This risk also applies to perishable commodities, such as corn; investors require assurances that the underlying asset is still within its "sell-by" date, which must be reflected in the token's data.

Q3: What expectations should be set for each stakeholder group (including regulators, financial institutions and technology providers) in supporting the development of a tokenised ecosystem?

Ripple believes that the successful development of a tokenised ecosystem requires clearly articulated expectations across regulators, financial institutions and technology providers, anchored on accountability, interoperability, compliance by design and the preservation of monetary and financial stability.

1. Regulators

Regulators should provide clear, coordinated and technology agnostic guidance on the regulatory treatment of tokenised assets and their applications within existing financial regulatory frameworks, consistent with the principle of same activity, same risk, same regulatory outcome. Where tokenisation use cases span payments, capital markets, custody and outsourcing functions, alignment between relevant authorities will be critical to reduce ambiguity and avoid regulatory fragmentation.

Structured pathways for responsible experimentation should be established, including clearly defined participation criteria, baseline safeguards for pilots such as permissioned access and known accountable actors, and transparent expectations on the evidence required to scale beyond proof of concept stages. Clarification of legal enforceability, recognition of tokenised claims, and expectations for robust on and off-ramping mechanisms would further support industry confidence.

In relation to tokenised money, regulators should articulate clear expectations for tokenised deposits and any MYR stablecoin arrangements, including interoperability standards, credible redemption mechanisms where applicable, and safeguards that preserve the singleness of money and appropriately anchor settlement finality.

2. Financial Institutions

Financial institutions should assume clear accountability for governance, risk management, and compliance within tokenisation initiatives, including where operational components are outsourced to third-party technology providers. This includes implementing robust controls for key management, smart contract governance, third-party oversight, operational resilience, and incident response.

Institutions should actively participate in co-creation mechanisms established by BNM, including the DAIH and IWG. Participation should extend beyond experimentation to contributing to early alignment on interoperability standards, operational risk frameworks and safeguards necessary to support scalable adoption. An interoperability-first approach will be critical to avoid siloed implementations that fragment liquidity and infrastructure. Commitment to common standards and portability will be essential to enable ecosystem-wide scalability.

Tokenisation initiatives should embed compliance by design from inception, including Anti-Money Laundering/ Countering the Financing of Terrorism ("AML/CFT") requirements, customer due diligence, transaction monitoring and adherence to applicable Foreign Exchange Policy ("FEP") requirements[14]. Institutions should also define measurable outcomes for pilot initiatives, such as improvements in liquidity efficiency, Small Medium Enterprise ("SME") financing access or settlement risk reduction, and contribute structured learnings through agreed industry forums to inform future regulatory refinement.

3. Technology Providers

Technology providers play a foundational role in enabling secure and compliant tokenisation infrastructure. Platforms should be designed to meet financial sector standards for resilience, auditability and operational continuity, including strong logging, monitoring, change management and independent security testing practices.

Compliance features should be configurable and support permissioned access, identity and credential management, rule based controls and supervisory reporting interfaces. Clear delineation of responsibilities, particularly in areas such as smart contract development, data and oracle integrity, and key management tooling, is essential to ensure accountability across the value chain.

[14] See https://www.bnm.gov.my/documents/20124/60360/Foreign+Exchange+Notices_Consolidated.pdf, *BNM Foreign Exchange Policy Notices.*

Interoperability and open integration capabilities should be prioritised to reduce ecosystem fragmentation and vendor lock-in risks. Providers should also support institutional readiness by equipping financial institutions with practical deployment guidance, control mappings and operational runbooks consistent with regulatory expectations.

Q4: For institutions pursuing tokenisation initiatives independently, what forms of support or guidance from BNM would be most beneficial?

Institutions pursuing tokenisation initiatives independently would benefit from clear and timely guidance on the legal classification and enforceability of tokenised assets, including recognition of ownership rights, transferability and the treatment of smart contract based arrangements within existing legal frameworks. Legal certainty in these areas is essential to build market confidence and support scalable adoption.

Further clarity on supervisory expectations would also be beneficial, particularly in relation to tokenised deposits, potential MYR stablecoin arrangements, custody models, outsourcing and third party risk management, and the preservation of the singleness of money. Clear articulation of how existing prudential, conduct and Foreign Exchange Policy requirements apply in tokenised environments would reduce ambiguity and discourage regulatory arbitrage.

Guidance on consumer and investor protection safeguards, including disclosure expectations, operational resilience standards and incident response requirements, would support responsible innovation while protecting public trust.

Finally, structured engagement channels, whether through DAIH, thematic guidance notes or published supervisory insights from pilot learnings, would allow BNM to better understand operational realities while enabling industry participants to align early with regulatory objectives. This feedback loop would be particularly valuable in identifying regulatory gaps, infrastructure constraints and interoperability challenges before broader adoption.

Q5: What are your views on the guiding principles for identifying use cases? Are there any other guiding principles that should be considered?

Ripple believes that BNM's guiding principles of clear value proposition, technology solution fit and feasibility within current capabilities provide a sound foundation for identifying responsible tokenisation use cases. In particular, the emphasis on tangible economic benefit and avoiding tokenisation for its own sake is critical to ensuring that innovation remains anchored in real world outcomes rather than speculative activity.

Tokenisation use cases should prioritise areas where programmability, atomic settlement and improved transparency can meaningfully reduce frictions in existing financial processes, enhance liquidity efficiency or expand access to financing. However, such use cases should also demonstrate measurable improvements over existing digital alternatives, rather than replicating legacy processes on distributed infrastructure without substantive benefit.

In addition to BNM's proposed principles, Ripple believes two further considerations may strengthen the framework:

1. Interoperability: Use cases should be evaluated based on their ability to integrate with existing financial market infrastructures and support interoperability across platforms, in order to avoid fragmentation and preserve liquidity.
2. Safeguards and Scalability Readiness: Early stage use cases should be designed with a clear pathway to compliance, governance and operational resilience if scaled beyond pilot environments. This includes preserving the singleness of money, maintaining clear accountability among participants and embedding compliance by design.
3. Responsible Market Access: Tokenisation initiatives should aim to enhance accessibility and efficiency without replicating exclusionary structures. The objective should be to enable programmable and composable financial instruments that expand participation responsibly while maintaining financial stability and trust.

Q6: What tokenisation use cases in financial services is your institution considering for exploration or implementation?

Ripple works with a wide range of regulated market participants to develop and advance tokenisation use cases aligned with several of the priority areas outlined in this Discussion Paper, particularly in relation to tokenised financial instruments, tokenised money, and institutional trading and lending solutions, as well as broader real-world asset ("RWA") and market infrastructure applications.

1. Treasury and Liquidity Management

Ripple has partnered with DBS and Franklin Templeton[15] to launch trading and lending solutions powered by a tokenised money market fund and Ripple USD ("RLUSD")[16], an enterprise-grade, USD-backed stablecoin. Under this collaboration, DBS Digital Exchange will list sgBENJI, the token representing Franklin Templeton's tokenised U.S. dollar short-term money market fund, alongside RLUSD. Eligible institutional and accredited investors can trade RLUSD for sgBENJI tokens, enabling them to rebalance their portfolios into a relatively stable and yield-generating asset on a 24/7 basis with settlement completing within minutes.

In the next phase, DBS will explore enabling sgBENJI tokens to be used as collateral to obtain credit, including through repurchase transactions or through third-party platforms where DBS acts as an agent holding the collateral. This initiative demonstrates how tokenised money market funds may support trading flexibility and new collateral-based lending arrangements within a regulated institutional framework.

2. Tokenised Financial Instruments

Ripple has also announced a partnership with Aviva Investors[17] to explore the tokenisation of traditional fund structures on the XRP Ledger ("XRPL)[18]. This

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[15] See https://ripple.com/ripple-press/dbs-franklin-templeton-to-launch-trading-and-lending-solutions-tokenised-mmf-ripple-stablecoin-rlusd/, *DBS and Franklin Templeton to Launch Trading and Lending Solutions Powered by Tokenised Money Market Funds and Ripple's RLUSD Stablecoin.*

[16] Ripple USD (RLUSD) is Ripple's U.S. dollar–backed stablecoin. Each RLUSD token is supported one-to-one by cash deposits, U.S. Treasuries, and cash equivalents. This is what gives RLUSD a stable value that's tied to the U.S. dollar. RLUSD is issued under regulatory oversight, and it has approval from the New York Department of Financial Services (NYDFS) and the Dubai Financial Services Authority (DFSA). In certain jurisdictions, RLUSD has been integrated into the licensed payments product, Ripple Payments. By combining the stability of the dollar with the speed and transparency of blockchain, RLUSD is designed for use in payments, remittances, treasury flows, and on/off-ramp services within the Ripple ecosystem. Learn more at https://ripple.com/solutions/stablecoin/.

[17] See https://ripple.com/ripple-press/aviva-investors-seeks-to-tokenise-products-on-the-xrp-ledger-in-collaboration-with-ripple/, *Aviva Investors seeks to tokenise products on the XRP Ledger in collaboration with Ripple.*

[18] The XRP Ledger (XRPL) is a decentralised layer 1 blockchain renowned for its decade-long reliability and stability in tokenizing and exchanging crypto-native and real-world assets. Designed to support businesses and builders, it is powered by XRP, a cryptocurrency purpose-built for payments. Trusted by over 1,000 visionary builders and businesses worldwide, the XRP Ledger offers institutional-grade functionality and built-in features to enable secure, efficient, and scalable financial services and use cases. It's more than just a blockchain – it's a global developer community dedicated to transforming future business solutions.Learn more at XRPL.org.

collaboration is focused on enabling Aviva Investors to issue and manage tokenised funds using blockchain infrastructure. The initiative reflects a shared objective to incorporate tokenised solutions into existing product offerings while maintaining compliance and institutional governance standards.

Similarly, Franklin Templeton's decision to tokenise sgBENJI on the XRPL expands the availability of its tokenised money market fund across additional blockchain infrastructure. The XRPL was selected for its speed, efficiency and low transaction costs, which are relevant for managing the lifecycle of high volume financial instruments.

3. Tokenised Money

RLUSD is being used in these initiatives as a settlement asset to facilitate trading of tokenised fund units. Pairing tokenised money market funds with a stablecoin reduces friction associated with converting between fiat and tokenised assets and enables more seamless portfolio rebalancing within a single digital asset environment.

Across these use cases, Ripple's focus is on supporting regulated financial institutions in bringing traditional financial assets on-chain in ways that enhance operational efficiency, trading flexibility, and collateral utility, while remaining aligned with institutional standards and regulatory expectations.

4. Tokenised Financial Instruments (Fixed Income)

In Australia, Ripple partnered with Zerocap and Chainlink to tokenise Australia's first Commonwealth Government Bond-backed security on the XRPL. This real-money pilot was conducted under Project Acacia[19], a landmark initiative by the Reserve Bank of Australia ("RBA") and the Digital Finance Cooperative Research Centre ("DFCRC") to explore the role of digital money in the development of wholesale tokenised markets. The use case demonstrated the full lifecycle of a regulated security, from primary issuance to secondary market trading on the XRPL's native Decentralised Exchange ("DEX").

The pilot utilised RLUSD for secondary market settlement and integrated Chainlink oracles to provide real-time Net Asset Value ("NAV") updates. By executing this within a framework supervised by the Australian Securities and Investments Commission ("ASIC"), the project highlights Ripple's capability to support sovereign-grade RWA tokenisation, proving that purpose-built DLT can enhance liquidity and price discovery for High-Quality Liquid Assets ("HQLA").

[19] See https://www.rba.gov.au/media-releases/2024/mr-24-25.html, *RBA and DFCRC Joint Consultation Paper Project Acacia – Exploring the role of digital money in wholesale tokenised asset markets.*

5. Tokenised RWA and Digital Asset Custody

Lastly, while extending beyond the use cases categorised in the Discussion Paper, Ripple is actively exploring the tokenisation of physical assets and the provision of institutional custody for government registries. Most notably, in the United Arab Emirates ("UAE"), Ripple partnered with Ctrl Alt to support the Dubai Land Department ("DLD") in tokenising real estate title deeds on the XRPL[20].

This initiative is the first instance of a government real estate registration authority in the Middle East tokenising deeds on a public blockchain. By integrating secure custody with lifecycle management, the project enables fractional ownership, allowing multiple investors to co-own assets and increasing market transparency.

Q7: Does your institution recognise the potential for tokenisation to enhance the delivery of financial services? What specific problem statements do you believe tokenisation can meaningfully address?

Ripple recognises the potential for tokenisation to enhance the delivery of financial services where it addresses identifiable structural inefficiencies in existing market infrastructure. In our view, tokenisation should not be pursued as an end in itself, but as a mechanism to resolve specific frictions in issuance, trading, settlement and asset servicing.

The key problem statements tokenisation can meaningfully address include:

1. Settlement and Counterparty Risk

   Traditional financial markets operate on delayed settlement cycles, often T+2 or longer, creating counterparty exposure, capital lock-up and reconciliation burdens. Tokenisation, when combined with appropriately regulated digital settlement assets, enables near-instantaneous Delivery versus Payment ("DvP"). This reduces settlement risk, improves capital efficiency, and minimises operational complexity associated with post-trade processing.

2. Fragmented and Inefficient Record Keeping

[20] See https://ripple.com/ripple-press/ripple-expands-global-custody-footprint-into-middle-east-with-ctrl-alt/, *Ripple Expands Global Custody Footprint into Middle East with Ctrl Alt*

Multiple intermediaries across issuance, transfer agency, custody and reconciliation create duplicative record-keeping and operational overhead. Distributed ledger infrastructure enables a shared source of truth, reducing reconciliation requirements and improving transparency across the transaction lifecycle.

3. Illiquidity in Traditionally Static Asset Classes
   Certain asset classes such as private credit, real estate and trade finance instruments remain illiquid due to market structure constraints and high minimum investment thresholds. Tokenisation enables fractional ownership and programmable transferability, which can broaden participation and support secondary market development where appropriate regulatory safeguards are in place.

4. Limited Collateral Mobility and Capital Efficiency
   In traditional systems, illiquid or operationally complex assets are often subject to significant haircuts or excluded from collateral frameworks. Tokenised representations, when supported by active markets and transparent pricing, may enhance collateral utility and enable more efficient liquidity management.

5. Operational Rigidity in Asset Servicing and Corporate Actions
   Smart contract-enabled automation can streamline processes such as dividend distribution, coupon payments, corporate actions and governance mechanisms. This reduces administrative burden and enhances accuracy, while preserving investor rights where properly structured within existing legal frameworks.

6. Interoperability in Cross-Border Transactions
   Cross-border value transfer remains dependent on correspondent banking arrangements and siloed market infrastructures. Tokenised assets and regulated digital settlement instruments may improve interoperability and reduce friction where regulatory clarity and cross-jurisdictional alignment exist.

Overall, Ripple believes tokenisation has the greatest potential where it improves settlement efficiency, transparency, liquidity formation and capital mobility within a regulated framework that preserves financial stability, investor protection and legal certainty.

Q8: Are there opportunities for tokenisation to benefit underserved segments or strategic sectors that drive inclusive and sustainable development?

Ripple recognises that asset tokenisation may create opportunities to broaden access to capital and financial markets, particularly in sectors that are traditionally underserved or operationally constrained.

First, tokenisation can lower minimum investment thresholds through fractional ownership structures, which may support broader participation in asset classes such as infrastructure, private credit, or real estate, where entry barriers have historically been high. When implemented within an appropriate regulatory framework, this may expand access while preserving investor protection.

Second, tokenisation serves as a critical enabler for institutional capital formation within the SME sector by transforming static trade receivables and revenue-generating assets into high-velocity, digital instruments. By digitising claims on trade finance, tokenisation introduces a layer of transparency and standardisation that addresses the structural information asymmetries inherent in traditional lending models. This enables a 'credit-cascade' effect, where smaller suppliers can programmatically leverage the creditworthiness of anchor buyers. This mechanism effectively lowers the cost of capital for underserved firms and resolves persistent working-capital frictions by providing instant, verifiable liquidity based on real-economy transaction data.

Third, in sustainability-linked sectors, tokenisation may facilitate greater transparency and traceability of environmental or climate-related instruments, such as carbon credits or green bonds. DLT-based infrastructure can enhance auditability and lifecycle tracking, which may strengthen trust and integrity in sustainability markets where verification is critical.

Finally, tokenisation may improve liquidity formation in long-dated or illiquid assets that are strategically important for economic development, including infrastructure and energy transition projects. Improved transferability and secondary market mechanisms, where appropriately supervised, may help mobilise capital more efficiently.

Ripple emphasises that any inclusion benefits must be balanced with clear regulatory safeguards, robust disclosure standards and appropriate suitability

requirements to ensure that expanded access does not introduce disproportionate risks to retail participants.

Q9: What are the key barriers currently preventing industry participants from independently pursuing tokenisation exploration?

Ripple believes that as Malaysia advances tokenisation through the DAIH and IWG, several structural, legal, and operational questions will need to be addressed to ensure that emerging roles operate within clear regulatory boundaries and preserve financial stability and trust.

1. Token Taxonomy and Legal Classification

A foundational requirement for a functioning tokenised ecosystem is the development of a clear taxonomy of token types and their associated legal characteristics. Different methods of tokenising RWAs may result in different rights, obligations, and risk profiles. Without a clear framework linking the digital representation of an asset to its underlying legal claim, uncertainty may arise regarding ownership, enforceability, and insolvency treatment.

Within Malaysia's existing legal and regulatory framework under the FSA, IFSA and CMSA, clarity on how tokenised financial instruments are classified would support supervisory consistency and reduce interpretive risk. A structured taxonomy would also help determine which activities fall within regulated financial services, capital market activities, or ancillary technology services.

For financial securities and other regulated instruments, further clarity may also be required on how technological settlement mechanisms align with existing legal requirements for payment and securities finality.

2. Licensing Perimeter and Evolving Market Infrastructure Roles

Tokenisation introduces structural changes to how trading, clearing and settlement functions are performed. In traditional financial market infrastructures, these functions are typically separated across distinct entities, including trading venues, central counterparties, clearing houses and securities settlement facilities. Existing regulatory frameworks are built around this centralised and sequential model.

By contrast, tokenised arrangements that enable atomic delivery versus payment may combine trade execution, clearing and settlement into a single programmable process. Settlement can occur near instantaneously through

smart contract logic without the need for a separate clearing intermediary to manage counterparty exposure between trade and settlement.

This structural difference creates uncertainty for industry participants. It may be unclear whether a programmable platform facilitating atomic settlement would be considered to be performing functions analogous to a central counterparty, clearing house or securities settlement facility under existing Malaysian law. Participants may therefore face ambiguity as to whether additional licensing requirements would apply, or whether current frameworks can accommodate such models without modification.

The lack of clarity on how atomic settlement aligns with established legal concepts of clearing, novation and settlement finality may discourage independent experimentation. Firms may be hesitant to pursue tokenised use cases if there is uncertainty regarding regulatory treatment, capital requirements or infrastructure obligations.

Providing guidance on how existing clearing and settlement requirements apply to tokenised DvP models would reduce interpretive risk and support responsible exploration. Clear articulation of how the principle of same activity, same risk, same regulatory outcome applies in the context of programmable settlement would give market participants greater confidence to innovate while preserving financial stability objectives.

3. Custody and Legal Recognition of Ownership

Custody is a critical element that may require further clarification as tokenisation evolves.

Regulatory regimes must ensure that ownership changes executed on a blockchain are legally recognised as transfers of ownership of the underlying asset. In traditional markets, central securities depositories and custodians maintain authoritative records of ownership and provide legal certainty regarding asset entitlement. In a tokenised environment, particularly where assets are issued or represented on programmable platforms, responsibility for maintaining and reconciling beneficial and legal ownership may be distributed across issuers, custodians, smart contracts and platform operators.

This raises several important considerations:

- Whether the token itself constitutes the legally recognised asset or represents a claim on an underlying off-chain asset

- How segregation of client assets is ensured, particularly in insolvency scenarios
- How control of private keys interacts with legal ownership rights
- Whether on-chain settlement finality is recognised as legally binding finality under existing payment and securities law

Provisions must ensure that on-chain settlement finality does not conflict with the legal enforceability of claims. Where tokenisation involves an underlying RWA held off-chain, robust custody, asset segregation, and reconciliation mechanisms are essential to prevent legal ambiguity or double encumbrance.

Clear allocation of responsibility between issuers, custodians and infrastructure providers will be critical to preserving investor protection and financial stability. Clarification on how existing custody, trustee and safekeeping obligations apply in tokenised arrangements would support responsible scaling.

4. Emerging Ecosystem Service Providers

In addition to regulated financial institutions, tokenised ecosystems may rely on specialised service providers, including:

- Smart contract developers and protocol governance entities
- Key management and digital asset custody technology providers
- Blockchain analytics and transaction monitoring firms
- Oracle and data verification providers
- Interoperability and cross-platform infrastructure operators

While some of these roles may fall outside traditional financial regulation, they can be operationally critical to financial stability and consumer protection outcomes. Clear accountability standards and outsourcing expectations would help ensure that risks are appropriately managed.

Overall, regulatory clarity on token classification, licensing perimeter application, custody arrangements and the allocation of responsibilities across ecosystem participants would reduce uncertainty and support responsible innovation aligned with Malaysia's monetary and financial stability objectives.

Q10: As tokenisation advances, what new roles do you anticipate emerging? What other types of service providers are critical?

Building on our response to Question 9, Ripple believes that regulatory clarity on settlement architecture, legal recognition of ownership, and licensing perimeter application will be foundational to enabling responsible tokenisation in Malaysia. As these structural issues are addressed, several new or reconfigured roles are likely to emerge within the ecosystem.

1. Digital Asset Custody and Safekeeping Providers

Custody is a critical pillar of any tokenised financial system, as noted in our response to Question 9. Tokenisation introduces the need to manage both underlying real world assets and their on-chain representations.

This may lead to the emergence or expansion of specialist digital asset custodians responsible for:

- Secure key management and transaction authorisation
- Segregation of client assets in tokenised form
- Reconciliation between on-chain token balances and off-chain underlying assets
- Ensuring legal enforceability of ownership rights

Unlike traditional market structures where central securities depositories maintain authoritative ownership records, tokenised systems may distribute responsibilities across custodians, issuers and platform operators. Clear delineation of roles and accountability will therefore be essential to preserve investor protection and financial stability.

It is also worth noting that digital asset custody methods can come in different formats, and should be best decided by firms based on their risk management framework. There are different ways to implement a custody regime to safeguard assets, such as self-custody and/or using a third-party service provider. Each format carries its own specific benefits and risks and will be more suitable depending on the business model or intentions of the investor or beneficial owner.

In line with the principle of "Same Activity, Same Risk, Same Regulatory Outcome", we believe that the BNM should remain neutral in this regard and that there should be a focus on adopting international best practices and standards.

Self-custody, which carries its own specific benefits and risks, will be more suitable depending on the business model or intentions of the investor or beneficial owner. We believe it is essential to address the risk associated with

different custody technologies and formats, maintaining a technological-agnostic framework while balancing security with operational efficiency. In relation to the associated risks, self-custody relies on the user maintaining access to their private keys and therefore if these keys are lost, the assets will likely be permanently lost. This contrasts with third party custody providers whereby key recovery mechanisms are usually in place.

However, self-custody also gives investors direct control over their assets, and eliminates the risk of a custodian's insolvency or losses due to a cyberattack on a custodian provider. As such, we believe custody technology solutions should provide robust methods for key recovery in disaster scenarios where the key becomes unavailable or inaccessible.

2. On-Chain Settlement Asset Issuers and Reserve Managers

As noted in our response to Question 9, the availability of a clear framework for on-chain settlement assets is central to enabling broader tokenisation exploration.

New roles may include:

- MYR stablecoin issuers operating under defined redemption and reserve requirements
- Tokenised deposit issuers are integrating programmable money into settlement processes
- Reserve managers are responsible for safeguarding backing assets and ensuring transparency

Without clarity on minting, redemption and reserve management standards, the process of bringing financial instruments on-chain may remain constrained. Establishing clear expectations for these roles would support ecosystem confidence while preserving the singleness of money and monetary stability objectives.

3. Settlement Coordination and Infrastructure Operators

Tokenised delivery versus payment models may reduce reliance on traditional clearing intermediaries, as discussed in our response to Question 9. However, this does not eliminate the need for governance and oversight of settlement processes.

New infrastructure roles may include:

- Platform operators coordinating atomic settlement processes

- Entities responsible for smart contract governance and protocol upgrades
- Interoperability providers enabling interaction between programmable platforms and existing infrastructures such as RENTAS

These roles may not fit neatly within traditional classifications of trading venue, central counterparty or settlement facility. Clarifying how existing licensing frameworks apply to such functions would support responsible innovation while preserving the principle of same activity, same risk, same regulatory outcome.

4. Compliance and Risk Infrastructure Providers

Tokenised ecosystems may increasingly rely on specialised service providers to support compliance and risk management functions, including:

- Blockchain analytics and transaction monitoring providers
- Identity verification and permissioning system operators
- Smart contract audit and code assurance firms
- Oracle providers supplying verified off-chain data

Although these actors may not always fall within traditional regulatory perimeters, their services can be critical to maintaining operational resilience, financial integrity and consumer protection outcomes. Clear accountability standards and alignment with outsourcing requirements will therefore be important.

Overall, as the barriers identified are progressively addressed, tokenisation is likely to give rise to a more modular and technology-enabled financial ecosystem. Ensuring clarity on role allocation, accountability and regulatory expectations across these emerging participants will be essential to advancing Malaysia's tokenisation journey in a manner consistent with monetary and financial stability objectives.

Q11: Does your institution foresee any challenges in interpreting or applying existing regulatory classifications to tokenisation-related activities?

Ripple believes that there may be interpretive challenges in applying existing regulatory classifications to certain tokenisation-related activities, particularly where digital representations of assets do not map neatly onto traditional product categories.

Existing definitions of financial products are generally anchored to conventional characteristics such as shareholding rights, voting rights or contractual claims. Some tokenised instruments may replicate economic exposure to an asset without conferring identical legal features. In such cases, uncertainty may arise as to whether the instrument falls within existing definitions of a security, derivative, deposit or other regulated product under Malaysian law.

In addition, tokenisation introduces features such as programmable settlement, embedded smart contract logic and atomic delivery versus payment. These technological attributes are not always expressly contemplated in current legislation, which is structured around centralised intermediaries and sequential trading, clearing and settlement functions. As a result, there may be ambiguity in determining whether a programmable platform is performing activities analogous to those of a trading venue, clearing house or settlement facility.

Another area of potential complexity relates to functional classification. Tokenised arrangements may combine multiple roles within a single infrastructure layer, including issuance, custody, settlement coordination and liquidity provision. Applying activity-based licensing frameworks to these modular configurations may require careful interpretation to preserve the principle of same activity, same risk, same regulatory outcome.

In this context, regulatory clarification and guidance on how existing classifications apply to tokenised instruments and service models would provide greater certainty to market participants. Clear articulation of supervisory expectations would reduce interpretive risk while supporting responsible experimentation within Malaysia's financial stability objectives.

Q12: What regulatory or operational considerations have influenced your institution's decision to participate in certain roles within the tokenisation value chain?

As noted in our response to Question 9 and speaking more broadly as an industry leader, Ripple believes that areas such as legal classification, settlement architecture and custody recognition influence how institutions assess regulatory exposure, licensing implications and operational risk when deciding which roles to undertake.

Operational considerations, including integration with existing financial infrastructure, compliance with AML/CFT and FEP requirements, and alignment with internal risk governance frameworks, also shape participation decisions. Clear guidance on role delineation and accountability would support broader and more confident engagement across the ecosystem.

Q13: For technology and infrastructure service providers, are there any regulatory uncertainties or operational constraints that affect your ability to support tokenisation initiatives?

Ripple provides blockchain-based enterprise solutions across payments, custody, liquidity, and treasury management, leveraging XRP and RLUSD, to help institutions operate and scale in the modern financial system.

Technology and infrastructure providers face regulatory and operational considerations similar to those outlined in our response to Question 9. In particular, uncertainty regarding the application of licensing frameworks, role classification, and accountability standards may affect how infrastructure providers structure their services and partnerships with regulated institutions.

As also noted in our response to Question 3, technology providers must also align with financial sector expectations relating to resilience, outsourcing risk management, data governance and compliance by design. Clear supervisory guidance on the allocation of responsibilities across issuers, custodians and infrastructure providers would reduce ambiguity and support scalable and secure implementation of tokenisation initiatives.

Q14: How could public-private partnerships play a catalytic role in developing tokenised ecosystems?

Ripple believes that public-private partnerships can play a catalytic role in developing tokenised ecosystems in Malaysia, particularly where infrastructure development, legal reform and supervisory expectations must evolve in parallel. As noted in our response to Question 9, tokenisation introduces legal, operational and systemic complexities that cannot be addressed in isolation. A structured public-private partnership model enables regulators and industry participants to jointly resolve these frictions in a controlled and evidence-based manner.

Jurisdictions like Singapore and Hong Kong have demonstrated their approach towards public-private partnerships:

- Project Guardian by the MAS: Project Guardian showcases how a regulator-led but industry-driven model can foster experimentation in tokenised bonds, liquidity pools and institutional DeFi use cases. By convening global financial institutions and technology providers within defined guardrails, MAS has enabled structured pilots while maintaining clarity on regulatory perimeter and supervisory oversight.
- Project Ensemble[21] by the Hong Kong Monetary Authority ("HKMA"): Project Ensemble demonstrates how a central bank can coordinate wholesale CBDC (wCBDC) exploration and tokenised settlement infrastructure in collaboration with industry participants. Project Ensemble's sandbox approach illustrates the importance of aligning programmable settlement assets with existing financial market infrastructures, rather than creating parallel systems.

These initiatives reflect a common principle where these partnerships are most effective when they are not merely consultation platforms, but structured environments for live testing, data generation and iterative regulatory refinement.

1. Infrastructure Co-development and Interoperability

As noted in our response to Question 2, secondary market infrastructure and on-chain settlement assets are foundational enablers of tokenisation.

Public-private partnerships can support coordinated development of:

- Interoperable programmable platforms
- Integration between tokenised systems and existing infrastructures such as Real-time Electronic Transfer of Funds and Securities ("RENTAS")
- Standardised token frameworks and identity models

A jointly governed infrastructure layer, whether through DAIH or a common programmable testing environment, would reduce fragmentation, prevent siloed implementations and enable liquidity formation at scale. Early alignment on interoperability standards is essential to avoid long-term structural inefficiencies.

2. Legal and Regulatory Modernisation

[21] See https://www.hkma.gov.hk/eng/news-and-media/press-releases/2024/08/20240828-3/, *HKMA launches Project Ensemble Sandbox to accelerate adoption of tokenisation.*

Public-private partnerships can also function as structured policy laboratories. As noted in our response to Question 1, empirical findings from proof-of-concept and pilot initiatives should inform legislative and supervisory updates under the FSA, IFSA and CMSA.

3. Tokenised Money and Monetary Safeguards

As discussed in our response to Question 5 and Question 9, the availability of credible settlement assets is central to scaling tokenisation. PPPs can support structured experimentation in areas such as tokenised deposits, MYR stablecoin models and interoperability between programmable settlement instruments and central bank money.

This ensures innovation remains anchored to the singleness of money principle and preserves settlement finality within a two-tier monetary system. Coordinated design reduces the risk of fragmented or unregulated settlement arrangements emerging outside supervisory oversight.

4. Compliance and Financial Integrity

Public-private collaboration also strengthens compliance-by-design implementation. Tokenised ecosystems introduce new AML/CFT, FEP and transaction monitoring considerations. PPPs provide a mechanism to co-develop supervisory expectations for:

- Permissioned access frameworks
- Embedded identity and credential verification mechanisms
- Smart contract audit standards
- Blockchain analytics integration

Given the cross-border and borderless nature of tokenised assets, early regulatory alignment reduces arbitrage risk and strengthens financial integrity safeguards.

5. Capacity Building and Industry Readiness

Tokenisation requires new technical competencies across regulators and financial institutions. PPPs facilitate shared capacity building through workshops, technical roundtables and supervisory dialogues. This reduces information asymmetry and ensures that risk management frameworks evolve in tandem with infrastructure development.

As noted in our response to Question 3, interoperability-first design and compliance-by-design principles are more effectively embedded when

regulators and industry participants collaborate from inception rather than retrofitting controls post-implementation.

Q15: How will tokenisation affect your ability to comply with AML/CFT/CPF and TFS requirements?

Ripple recognises that AML/CFT/CPF and Targeted Financial Sanctions ("TFS") obligations remain fully applicable in tokenised environments. Tokenisation does not reduce these obligations; rather, it alters the operational architecture through which compliance controls must be implemented.

In our view, tokenisation presents both compliance enhancements and new risk considerations.

1. Enhanced Traceability and Monitoring Capabilities

DLT-based infrastructure can strengthen AML/CFT controls through immutable transaction records and consolidated audit trails. Compared to traditional fragmented record-keeping systems, on-chain data provides a time-stamped and tamper-evident transaction history, which may support:

- More effective transaction monitoring
- Faster forensic investigation
- Improved transparency across asset transfers

When integrated with blockchain analytics and identity verification systems, tokenised environments can enhance monitoring capabilities and reduce reliance on post-transaction reconciliation.

However, traceability alone is insufficient. As noted in the Discussion Paper, reliance solely on ex-post detection mechanisms may not adequately address risks associated with pseudonymity, cross-border transfers or obfuscation tools. Compliance frameworks must therefore embed preventive controls at the institutional level.

2. Technology-Neutral Network Selection

Ripple maintains that DLT network selection should remain open to firms and aligned with the principle of technology neutrality. Regulatory frameworks should not prescribe a preference for specific network models but should instead focus on achieving equivalent compliance outcomes.

Public and private DLT networks present distinct operational characteristics and risk profiles. Several research and supervisory experimentation has demonstrated that no single model is universally superior, and the network design should instead be calibrated to the specific financial product, settlement model and risk context:

- DLT in Payment, Clearing and Settlement: An Analytical Framework Report[22]: Led by the Bank for International Settlements ("BIS") Committee on Payments and Market Infrastructures ("CPMI"), the report highlighted the trade-offs between public and permissioned DLT networks, noting that while public DLTs promote transparency and resilience, they introduce governance challenges, scalability constraints, and compliance difficulties, particularly for regulated financial markets.
- Project Ubin[23]: Project Ubin by the MAS explored the use of permissioned DLTs for interbank payments and securities settlement, and found that private DLT networks facilitated better control over participants, supported regulatory compliance, and enabled integration with existing financial market infrastructure.
- Project mBridge[24]: In collaboration with the BIS Innovation Hub Hong Kong Centre, the Hong Kong Monetary Authority ("HKMA"), the Bank of Thailand ("BOT"), the Digital Currency Institute of the People's Bank of China ("PBC DCI") and the Central Bank of the United Arab Emirates ("CBUAE"), the mBridge Ledger explored a hybrid permissioned DLT network for cross-border CBDC settlements. The project demonstrated that permissioned DLTs could achieve efficiency gains and regulatory compliance, balancing the openness of DLT with the need for participant verification and transaction privacy.

Importantly, permissionless blockchains are not homogeneous. Institutional-grade networks, such as the XRPL, incorporate features including issuer controls, permissioned domains and programmable compliance functionality that can support regulated financial activity. The compliance assessment should therefore focus on risk management architecture rather than the public or private classification of the network.

3. Institutional Accountability and Compliance Controls

[22] See https://www.bis.org/cpmi/publ/d157.pdf, *Distributed ledger technology in payment, clearing and settlement: An analytical framework.*
[23] See https://www.mas.gov.sg/schemes-and-initiatives/project-ubin, *Project Ubin: Central Bank Digital Money using Distributed Ledger Technology.*
[24] See https://www.bis.org/publ/othp59.htm, *Project mBridge: connecting economies through CBDC.*

Regardless of network architecture, AML/CFT compliance must remain anchored at the regulated institution level. Financial institutions retain responsibility for:

- Robust KYC onboarding
- Ongoing transaction monitoring and sanctions screening
- Risk-based transfer controls
- Suspicious activity reporting and escalation

On public networks, compliance controls may be implemented through layered mechanisms such as whitelisting, credential gating, programmable transfer restrictions and analytics integration. On private networks, participant controls may be embedded at the infrastructure layer. The regulatory objective should be equivalence of outcome rather than uniformity of design.

4. Operational and Cross-Border Considerations

Tokenisation introduces additional compliance considerations:

- Interoperability across platforms may complicate monitoring if standards are not aligned
- Smart contract execution requires compliance logic to be embedded ex-ante
- Decentralised validation models require clear allocation of accountability
- Immutability necessitates governance mechanisms to address operational errors

Further, given the cross-border nature of tokenised assets, institutions must carefully assess FEP implications alongside AML/CFT obligations. Clear supervisory guidance on the application of FEP notices in tokenised environments would support consistent compliance implementation.

Q16: What factors should be considered in determining user readiness? What safeguards or onboarding mechanisms would be necessary for retail users?

Ripple maintains that as tokenisation moves toward mainstream adoption, user readiness must be evaluated through a framework of information parity. Retail users should not be expected to bear the burden of technical complexity; rather, the ecosystem must provide intuitive safeguards that mirror or exceed the protections found in traditional finance.

1. Standardised Disclosure and Transparency Frameworks

As noted in our response to Question 2 regarding transparency, the foremost factor in determining readiness is the user's ability to understand the link between the digital token and the underlying asset. We would be supportive of a standardised Key Information Document ("KID") for all tokenised offerings, which must explicitly detail:

- Redemption Rights: Clear, enforceable procedures for converting tokens back into fiat or the physical asset.
- Ownership Rights: Whether the token represents direct legal title or a beneficial interest in a trust.
- Governance: Any voting rights or administrative powers conferred upon the holder.

2. Mitigating the "Irreversibility Risk" through Managed Onboarding

The immutability of DLT transactions poses a significant hurdle to retail readiness. As established in our response to Question 10 regarding digital asset custody, Ripple believes that self-custody may not be the appropriate starting point for all retail users. To ensure safe onboarding, we suggest:

- Tiered Access Models: Implementing a graduated system where retail users start with "bank-mediated" custody solutions. This allows for traditional security features like password recovery and Two-Factor Authentication ("2FA") before progressing to more autonomous models.
- Friction-by-design: For high-value transactions, introducing a "cooling-off period" or multi-signature verification to prevent losses due to human error or social engineering scams.

3. Educational Initiatives and Scam Prevention

Education remains a vital enabler, but it must be targeted. As noted in our response to Question 3 regarding Technology Provider Expectations, industry players have a duty to educate the sector on "cyber hygiene." Retail awareness initiatives should focus specifically on:

- The Private Key Paradox: Helping users understand that while they have "control," the loss of keys equates to a permanent loss of capital in the absence of institutional recovery bridges.
- Sophisticated Fraud Vectors: Providing real-time alerts within wallets regarding known phishing sites or "rug-pull" investment schemes.

4. Technological Guardrails

Ultimately, the most effective safeguard is the technology itself. By utilizing programmable compliance (as discussed in our response to Question 15), issuers can ensure that retail users are only able to purchase assets that match

their risk profile. For example, a smart contract could be programmed to reject a "Buy" order from a retail wallet if the investment exceeds a certain percentage of their verified net worth, ensuring that safeguards are enforced automatically at the protocol level.

Q17: Are there specific infrastructure or policy enablers that would support broader and more inclusive access over time?

Ripple believes that achieving truly inclusive access requires moving beyond the current approach of traditional capital markets. To scale tokenisation responsibly while democratising access, the BNM should focus on two primary enablers: the institutional adoption of tokenised reserves and the transition toward a tiered participation framework.

1. Institutional Adoption of Tokenised Reserves

A critical policy enabler is the recognition of tokenised HQLA within the national prudential framework. As noted in our response to Question 12 regarding operational considerations, allowing financial institutions to hold and settle using tokenised reserves, such as tokenised government bonds or money market funds, would provide the necessary deep liquidity to support retail-facing services. By aligning with international standards, such as the Basel Committee's prudential treatment of crypto-assets, the BNM can encourage banks to provide the on-ramps that allow SMEs and retail investors to interact with tokenised ecosystems with the same confidence they have in traditional banking.

2. Transitioning to a Tiered Participation Framework

Ripple maintains that restricting tokenisation to existing capital market participants may inadvertently stifle the inclusion benefits of the technology. As noted in our response to Question 1 regarding international benchmarking, we caution against the complexities seen in the EU's DLT Pilot Regime, where high entry barriers resulted in limited industry engagement. Instead, we propose a tiered licensing model:

- Tiered Licensing: Establishing a supervised access regime for Fintechs and SMEs to utilise tokenisation infrastructure.
- Democratised SME Funding: As established in our response to Question 8, enabling the tokenisation of trade receivables allows smaller suppliers to access credit-linked funding that was previously only available to large corporations.

Q18: What service model design is your institution most interested to explore and why?

Ripple is primarily interested in exploring a hybrid service model that facilitates a progressive transition toward full on-chain implementation as enabling infrastructure matures. As noted in our response to Question 2 regarding secondary market liquidity, the fundamental value of tokenisation is realised through the removal of structural frictions across the asset lifecycle. Consequently, our interest lies in models that utilise on-chain market mechanisms, such as Automated Market Makers ("AMMs"), to provide 24/7 liquidity and efficient price discovery for traditionally static assets.

This specific design is preferred because it directly addresses the core problem statements identified in our response to Question 7, notably the reduction of settlement latency and the enhancement of collateral mobility. By adopting a model where issuance, trading, and settlement occur on a shared programmable platform, financial service providers can achieve atomic settlement, which significantly lowers counterparty credit risk. Furthermore, as established in our response to Question 6, Ripple's successful collaborations demonstrate our commitment to models that pair tokenised financial instruments with regulated settlement assets, such as stablecoins, to ensure a seamless and high-velocity transaction flow.

Q19: What principles or safeguards should guide the design of service models to ensure operational continuity and resilience?

To ensure that tokenised service models maintain a level of resilience equivalent to legacy systems, Ripple recommends the following guiding principles:

1. Geographic and Technical Redundancy

To ensure high availability and prevent single points of failure, critical functions, such as transaction validation, ledger synchronisation, and state storage, should be hosted across multiple independent nodes. These nodes should be geographically dispersed and operate on heterogeneous infrastructure (e.g., across different cloud providers or on-premises data centres) to mitigate the risk of correlated failures. As noted in our response to Question 13, such a decentralised architecture ensures that even in the event of a localised technical outage or a targeted cyber-attack on a specific institution, the

broader market infrastructure remains operational, preserving the continuity of settlement services for the Malaysian financial sector.

2. Robust Emergency Governance and Network Recovery

Operational resilience requires more than technical redundancy; it necessitates a clear, pre-defined governance framework for emergency interventions. Rules for "Network Halts," "Protocol Freezes," or the reversal of erroneous transactions in extraordinary circumstances must be codified and transparent. Without clearly set-out rules for emergency governance, market participants may face uncertainty during periods of extreme stress, which could undermine investor confidence. As established in our response to Question 1 regarding legal finality, these governance protocols must be aligned with Malaysian regulatory expectations to ensure that administrative interventions are recognised as legitimate and legally binding.

3. Continuous Security Auditing and Dynamic Stress Testing

Given the immutability of blockchain transactions, security must be proactive and embedded into the service model. Ripple advocates for a "Security-as-Code" approach where smart contracts and underlying infrastructure undergo continuous, independent audits. This includes:

- Formal Verification: Using mathematical proofs to ensure that smart contract logic behaves exactly as intended under all possible scenarios.
- Dynamic Stress Testing: Simulating periods of extreme network congestion or liquidity runs to evaluate the model's performance under pressure. As noted in our response to Question 16, these security models are essential for mitigating the risks associated with the "Irreversibility" of DLT, ensuring that vulnerabilities are identified and remediated before they can impact real-world capital.

Q20: What are the most significant role reconfigurations anticipated in tokenised service models?

Ripple believes that the transition to a tokenised economy represents more than a digital overlay. As highlighted in the Ripple and BCG report, Approaching the Tokenisation Tipping Point, this shift involves a fundamental redesign of the infrastructure layer where financial assets are transformed from static instruments into dynamic software. This evolution necessitates a profound reconfiguration of traditional roles within the financial value chain.

1. The Shift of Market Infrastructures to "System Builders"

A primary reconfiguration involves the transition of Financial Market Infrastructures (FMIs) and global banks into what the report defines as "System Builders." Traditionally, FMIs have acted as neutral, centralised record-keepers. In a tokenised ecosystem, these entities must become architects of the shared infrastructure layer. As noted in our response to Question 14 regarding Project Guardian, this requires a move away from siloed operations toward co-designing the platform foundations that define market access and liquidity aggregation. For the Malaysian context, this means FMIs must shift from merely processing transactions to governing the programmable environments where those transactions occur.

2. Evolution of Custody from Safekeeping to Key and Wallet Management

The role of the custodian is undergoing a critical transformation. As established in our response to Question 10, custody is no longer solely about the physical or electronic safekeeping of an asset, but about the management of digital asset infrastructure. The Ripple/BCG paper underscores that control over wallet infrastructure is a strategic "control point" in the new value chain. Custodians will likely bifurcate into two specialised roles:

- Infrastructure Custodians: Who provide the underlying vaulting and multi-party computation (“MPC”) security.
- Service Custodians: Who manage the client relationship and the Business-to-Business-to-Consumer (“B2B2C”) distribution layer, enabling retail and institutional access to tokenised holdings.

This separation allows for greater operational flexibility but requires clear legal delineation to ensure that the fiduciary duty of care remains transparent to the end-user.

3. Integration of Compliance and Asset Servicing into "Smart Assets"

Perhaps the most significant reconfiguration is the automation of middle-office and compliance functions. The report notes that tokenisation enables "Embedded Compliance," where regulatory rules are no longer a post-trade check but a native feature of the asset itself. Consequently, the role of compliance officers and asset servicers will shift from manual reconciliation to Smart Contract Governance. As noted in our response to Question 6 regarding the Aviva Investors partnership, this allows for the programmatic enforcement of Shariah governance or corporate actions, such as dividend distributions. This reduces the need for traditional intermediaries like transfer agents, as the asset itself performs these functions automatically.

4. From Discretionary Market Making to Algorithmic Liquidity Provision

Finally, the role of the broker-dealer and market maker is being reconfigured by the rise of AMMs. As discussed in our response to Question 18, liquidity is increasingly provided through programmable pools rather than human-intermediated order books. This shifts the role of financial institutions toward being Liquidity Orchestrators, who manage the capital flows into these pools and ensure that the algorithmic pricing remains aligned with broader market conditions. This transition requires a new regulatory focus on the governance of the underlying algorithms to prevent unintended market outcomes.

Q21: Does your institution agree with the focus on tokenised financial instruments for initial exploration? Do you see a case for exploring other asset types?

While Ripple agrees that focusing on financial instruments is a prudent starting point due to their high economic density, we recommend that the BNM adopts a criteria-based approach rather than a static list of approved assets. We see a strong case for exploring Government Investment Issues (GII) and Real Estate Investment Trusts ("REITs") as immediate priorities. As noted in our response to Question 2 regarding secondary markets, these assets benefit significantly from the increased liquidity and fractionalisation that tokenisation provides. Over the longer term, tokenising utility-based assets or intellectual property could drive innovation in the real economy, provided they meet the suitability standards established in our response to Question 5.

Q22: What legal or contractual mechanisms would be necessary to ensure that tokenised financial instruments confer equivalent rights as traditional counterparts?

To ensure that tokenised financial instruments maintain legal and economic equivalence with traditional securities, a robust framework comprising statutory recognition, contractual structuring, and insolvency safeguards is required. The primary objective is to bridge the execution of code on a programmable platform with enforceable rights under Malaysian law.

1. Clear Contractual Linkage Between Token and Legal Rights

Tokenised instruments must not operate as standalone technical artefacts. Instead, the token must represent a clearly defined legal claim. Issuance documentation should expressly provide that the token constitutes either the legally recognised instrument itself, or a direct and enforceable claim on an underlying asset. Furthermore, it should ensure that token holders enjoy identical economic and governance rights as traditional holders, such as dividends, coupon payments, voting rights, and redemption rights.

It is essential that transfers effected on an authorised platform constitute a valid legal transfer of title, and that no parallel or duplicate issuance of the same underlying instrument occurs outside the tokenisation framework. Smart contracts should therefore function as an automated execution layer anchored to binding legal documentation. The rights and obligations of token holders must ultimately derive from enforceable contractual terms governed by Malaysian law. As noted in our response to Question 2, clarity on legal ownership is critical to ensuring that tokenised instruments provide a genuine "look-through" to the underlying legal claim.

2. Statutory Recognition of DLT-Based Registers

Where existing legislation, such as the SICDA and CMSA, contemplates centralised registers or depository records, regulatory guidance or legislative clarification may be required. This would confirm that an authorised DLT-based register may constitute a legally recognised register of ownership, and that on-chain records maintained under an approved framework carry equivalent evidentiary weight as entries in a central securities depository.

Without such recognition, discrepancies between on-chain balances and statutory registers could introduce uncertainty, particularly in dispute or insolvency scenarios. As highlighted in our response to Question 9, legal certainty regarding settlement finality is equally important. Transfers that are technically irreversible, such as "atomic" settlements, must also be recognised as legally final under Malaysian law to support institutional confidence.

3. Delineation of Roles and Fiduciary Responsibilities

Tokenisation often modularises traditional market infrastructure by separating technology providers, custodians, issuers, and asset managers. As discussed in our response to Question 20, offering documentation and master agreements must clearly define the role and liability of the issuer, the responsibilities of the technology or infrastructure provider, and the specific custodial obligations and segregation arrangements.

This contractual clarity ensures that token holders can exercise corporate or creditor rights without ambiguity arising from the underlying technical architecture. Standardised documentation frameworks, potentially developed through the DAIH, could provide consistency across market participants while preserving flexibility for innovation.

4. Segregation and Insolvency Protections

Legal equivalence requires that tokenised instruments maintain the same insolvency treatment and asset protection profile as their traditional counterparts. Documentation and regulatory frameworks should ensure that underlying assets are properly segregated from the balance sheet of custodians or infrastructure providers, and that token holders hold direct legal title or a clearly defined beneficial interest in the underlying asset.

It must also be ensured that tokenised assets are not subject to double encumbrance and that insolvency treatment is clearly defined in advance. As noted in our response to Question 10 regarding custody and our upcoming response to Question 23 on risk allocation, any ambiguity in insolvency ranking would materially undermine equivalence and investor protection.

Ensuring equivalence between tokenised and traditional financial instruments requires more than technical design. It necessitates the clear contractual anchoring of rights, the statutory recognition of authorised DLT-based records, the defined allocation of fiduciary responsibilities, and robust segregation and insolvency protections. Ripple believes that early regulatory clarification in these areas will be critical to ensuring that tokenisation enhances efficiency while preserving the legal certainty and systemic stability that underpin Malaysia's capital markets.

Q23: What challenges does your institution anticipate in preserving the risk characteristics of tokenised instruments?

Ripple believes that while tokenisation offers the potential to automate risk mitigation, the transition from legacy sequential processing to a real-time, programmable environment introduces unique structural challenges. Preserving the risk profile of a tokenised instrument requires addressing not only traditional financial risks but also the emerging technical and legal interdependencies.

1. Liquidity Risk and the Funding Gap

The shift toward atomic settlement significantly alters the liquidity profile of financial transactions. As noted in our response to Question 2, the elimination of the T+2 settlement window removes the temporal buffer that allows institutions to manage cash flows. This necessitates a transition to pre-funding models, which may increase the demand for high-velocity intraday liquidity. A secondary challenge is the potential for liquidity fragmentation; if tokenised assets are settled across multiple disparate ledgers without interoperable bridge infrastructure, capital may become trapped in siloes, artificially increasing the cost of funding and the risk of settlement failure during periods of market stress.

2. Market Risk and Continuous Volatility

Continuous 24/7 trading ensures that markets remain responsive to news, but it also exposes tokenised instruments to gap risk and heightened volatility during hours when traditional liquidity providers are less active. As established in our response to Question 15, while on-chain transparency enhances the ability to monitor market movements, it does not replace the need for systemic safeguards. A significant challenge lies in the calibration of automated circuit breakers; if these mechanisms are not harmonised across both digital and legacy venues, price discrepancies may arise, leading to arbitrage opportunities that could undermine market stability.

3. Credit and Counterparty Risk Automation

While tokenisation does not inherently alter the creditworthiness of an issuer, the use of smart contracts for collateral management introduces a new form of execution risk. As discussed in our response to Question 6, automated margin calls and collateral liquidation can reduce credit exposure. However, if the underlying Oracles providing the price feeds are compromised or experience latency, the smart contract may execute a liquidation based on inaccurate data. Preserving the credit risk characteristic, therefore, requires ensuring the integrity of the data inputs that trigger these automated credit-mitigation events.

4. Technical and Protocol-Layer Risk

A challenge unique to tokenised instruments is the introduction of Smart Contract Risk. Unlike a traditional legal contract, a flaw in the code of a tokenised instrument can lead to the permanent loss or freezing of the asset. As noted in our response to Question 19 regarding operational resilience, this technical risk must be treated as a component of the instrument's overall risk profile. Furthermore, the risk of a Protocol Fork or a consensus failure on the underlying ledger could lead to the duplication of assets or the uncertainty of

title, which would fundamentally alter the risk characteristics of the instrument compared to its traditional counterpart.

5. Legal and Prudential Risk Weights

Finally, a significant challenge remains the potential for Prudential Risk Weight Inflation. Under current global standards, such as those established by the Basel Committee, tokenised assets may be subject to higher capital charges if the infrastructure is not deemed sufficiently robust or if the legal finality is in question. As established in our response to Question 22 regarding legal equivalence, if the legal look-through to the underlying asset is not absolute, the instrument may be classified as a higher-risk derivative, thereby increasing the capital burden on licensed financial institutions and hindering the scalability of the ecosystem.

Preserving the risk characteristics of tokenised instruments requires a holistic approach that integrates technical security, legal finality, and liquidity management. Ripple maintains that by focusing on interoperability and compliance-by-design, the Malaysian financial sector can successfully transition to tokenised models while maintaining the risk-adjusted returns and systemic safety that define its capital markets.

Q24: For Islamic finance use cases, are there any Shariah considerations regarding asset tokenisation?

Ripple has no comments on this question.

Q25: What safeguards or operational processes would be needed to support robust on- and off-ramping?

Ripple maintains that the integrity of the tokenisation ecosystem is fundamentally dependent on the security and reliability of the "ramping" infrastructure. Robust on- and off-ramping requires more than simple reconciliation; it necessitates a multi-layered framework of technical, legal, and operational safeguards to ensure that the digital representation remains perfectly synchronised with the underlying RWA.

1. Synchronised Burn-and-Release Protocols

To prevent the risk of double encumbrance, off-ramping must be governed by a strict "Burn-then-Release" protocol. In this model, the smart contract must

confirm the permanent destruction (burning) of the digital token on the ledger before the underlying fiat or physical asset is released from custody. As established in our response to Question 22 regarding insolvency protections, this process ensures that at no point do two parties hold a valid claim to the same underlying asset. For on-ramping, a "Lock-and-Mint" mechanism should be employed, where tokens are only generated once a verified "Proof-of-Reserve" is established by a licensed custodian.

2. Automated Real-Time Reconciliation Engines

Beyond periodic attestations, robust ramping requires automated reconciliation engines that monitor both on-chain and off-chain ledgers in real-time. These engines should be programmed to flag any "Balance Mismatches" immediately, triggering an automated halt to further minting or burning until the discrepancy is resolved. As noted in our response to Question 13 regarding technical redundancy, these reconciliation logs should be tamper-proof and accessible to regulators, providing a continuous audit trail of every entry and exit from the tokenised ecosystem.

3. Multi-Signature Control and Governance for Minting Functions

The ability to mint or burn tokens is a high-sensitivity function that must not reside with a single individual or system. Ripple advocates for the use of Multi-Party Computation ("MPC") or Multi-Signature ("Multi-sig") governance for all ramp operations. This ensures that any request to mint new tokens requires the cryptographic authorisation of multiple independent parties, such as the issuer, the custodian, and potentially a third-party compliance monitor. This "Distributed Authorisation" model mitigates the risk of internal fraud or the compromise of a single administrative key, which could otherwise lead to the unauthorised inflation of the token supply.

4. Tiered KYC and Travel Rule Compliance at the Edge

Ramps act as the primary gatekeepers for financial integrity. As established in our response to Question 15, on-ramping should involve "Tiered KYC" models where the level of identity verification (including biometrics for retail users) is proportionate to the transaction value. Furthermore, all ramping infrastructure must be compliant with the Financial Action Task Force ("FATF") Travel Rule (Recommendation 16)[25], ensuring that verified originator and beneficiary information is attached to the transaction metadata as it moves between traditional and digital rails. This ensures that the BNM maintains a

[25] See https://www.fatf-gafi.org/content/dam/fatf-gafi/recommendations/Best-Practices-Travel-Rule-Supervision.pdf, *FATF Best Practices: Travel Rule Supervision.*

"look-through" visibility over all capital flows entering or exiting the Malaysian digital economy.

5. Liquidity Management and Price Locking via Oracles

Operational robustness also requires managing the price volatility that can occur during the "Conversion Window." To support seamless ramping, institutions should utilise decentralised Oracles to provide real-time, tamper-resistant price feeds for the underlying assets. This allows for "Rate Locking," where a user is guaranteed a specific conversion rate for a set period while the traditional bank transfer is being processed. As noted in our response to Question 2 regarding liquidity risk, providing these "Guaranteed Ramps" is essential for building the user trust necessary to scale the ecosystem.

The development of robust on- and off-ramps is not merely a technical requirement but a core component of market integrity. By implementing synchronised burn-and-release protocols, multi-signature governance, and tiered compliance measures, Malaysia can ensure that its tokenised financial services remain secure, transparent, and fully interoperable with the global financial system.

Q26: Under what conditions would your institution consider issuing financial instruments natively on-chain?

Ripple maintains that the transition toward native on-chain issuance—where an asset is birthed, managed, and matured entirely within a digital ledger without a prior physical or off-chain equivalent—represents the "Tipping Point" for the financial sector. However, for Ripple to support such a shift within the Malaysian ecosystem, the environment must evolve beyond experimental pilots toward a production-ready framework characterised by legal certainty and institutional-grade settlement rails.

1. Statutory Recognition of Distributed Ledgers as Authoritative Registers

The primary legal hurdle remains the lack of explicit recognition for DLT-based records under the SICDA. As noted in our response to Question 9 regarding legal taxonomy, native issuance requires that the ledger itself be recognised as the definitive "Source of Truth" for ownership. Once the BNM and the SC provide a statutory pathway that allows DLT registers to replace or serve as a legally valid alternative to centralised registries, native issuance will unlock the full potential of "Lifecycle Automation." This allows for corporate actions, such

as coupon payments and voting, to be executed programmatically without the administrative friction of reconciling with a legacy off-chain record.

2. Access to a Diverse and Interoperable Settlement Asset Ecosystem

Native issuance is only as efficient as its "cash leg". To achieve true atomic settlement, the payment must occur on the same ledger as the asset issuance. As established in our response to Question 2, Ripple advocates for an agnostic approach towards asset settlement. We believe that native issuance will only scale if institutions have the flexibility to settle using a variety of regulated digital assets, including wCBDC, tokenised deposits, and fiat-backed stablecoins. As noted in our response to Question 2, a multi-asset settlement environment ensures that Malaysia remains interoperable with global liquidity pools, preventing the domestic market from becoming a siloed "walled garden" that negates the borderless benefits of DLT.

3. Demonstrated Economic Utility and Institutional Product-Market Fit

Ripple believes that native on-chain issuance should not be pursued for the sake of innovation alone, but must be anchored to high-value, real-world economic utility. As noted in our response to Question 5 regarding the identification of use cases, native issuance is most compelling for asset classes that currently suffer from high intermediation costs or lack of transparency, such as SME Trade Receivables or Private Credit. By issuing these instruments natively, institutions can provide a level of data integrity and "Look-Through" visibility that is unfeasible in traditional systems. For the Malaysian context, this is particularly relevant for the Islamic Finance sector, where native issuance can programmatically guarantee the Shariah-compliant use of funds, as discussed in our response to Question 24.

4. Robust Secondary Market Infrastructure and Liquidity Depth

Finally, native issuance requires a commitment to building a functional secondary market ecosystem. As established in our response to Question 2, an asset that is natively issued but cannot be easily traded or used as collateral remains operationally stagnant. Therefore, a prerequisite for native issuance is the existence of regulated trading venues (“RMOs”) and liquidity providers capable of supporting 24/7 on-chain markets. By ensuring that natively issued instruments are "Collateral-Ready" from inception, as highlighted in our response to Question 6 regarding the DBS and Franklin Templeton partnership, Malaysia can ensure that native RWA tokens contribute to the systemic liquidity and capital efficiency of the broader financial system.

Native on-chain issuance represents the ultimate maturation of the tokenisation journey. By establishing a framework that prioritises statutory recognition, settlement asset neutrality, and real-world economic utility, BNM can ensure that native digital assets become a pillar of a more efficient, inclusive, and resilient financial sector.

Q27: What are the key regulatory, operational or legal considerations in issuing or using tokenised deposits?

The issuance of tokenised deposits represents a significant evolution of commercial bank money, requiring a careful balance between technical innovation and the preservation of the "Singleness of Money." Ripple believes that for these instruments to function effectively, they must be anchored in a framework that prioritises stability, interoperability, and prudential parity:

- Prudential Equivalency and Deposit Insurance: Tokenised deposits must be treated as functionally and prudentially equivalent to traditional deposits under the FSA. This includes alignment with MFRS accounting standards and Capital Adequacy Frameworks to ensure banks are not subject to punitive risk-weighting simply due to the digital form of the liability. Consistent with our views on Equivalent Rights in our response to Question 22, they must remain within the scope of Perbadanan Insurans Deposit Malaysia (“PIDM”) protection to maintain public trust.
- Native Interoperability vs. Proprietary Silos: From an operational standpoint, the risk of "Proprietary Liquidity Silos" (Walled Gardens) is a primary concern. As established in our response to Question 10, if banks develop non-interoperable ledgers, it will fragment market liquidity. We advocate for the adoption of native cross-chain interoperability protocols alongside common messaging standards (such as ISO 20022) to ensure that tokenised deposits can move seamlessly between different banking platforms and infrastructures.
- A Stable Settlement Trust Anchor: To scale, tokenised deposits require a risk-free settlement asset to facilitate interbank clearing. This "Settlement Asset Agnostic" approach, as discussed in our response to Question 2, allows for the use of wCBDC or tokenised central bank reserves as a trust anchor. By settling the "cash leg" of a transaction in central bank money on a shared programmable platform, the industry preserves the two-tier monetary system while enabling atomic finality.

Q28: What are your views on the potential challenges associated with tokenised deposits, particularly regarding liquidity risk management?

Ripple believes the primary challenges regarding liquidity are inextricably linked to the interoperability considerations and the increased velocity of money inherent in DLT environments.

- Management of High-Velocity Liquidity: The shift from T+2 or T+1 to atomic (T+0) settlement eliminates the temporal buffer institutions currently use to manage cash flows. This requires a transition toward real-time liquidity monitoring. As noted in our response to Question 23 regarding liquidity risk, BNM and financial institutions must assess whether existing Liquidity Coverage Ratio ("LCR") reporting is sufficient to monitor a market where liquidity can shift across the system in seconds.
- Intraday Liquidity Fragmentation: Without the common interoperability standards established in our response to Question 27, the risk of "Walled Gardens" complicates intraday liquidity management. Liquidity may become trapped within an institution's proprietary ledger, leading to artificial "liquidity crunches" even when the systemic balance is net-positive, potentially increasing the cost of funding for Malaysian banks.
- Programmable Outflows: The programmability of tokenised deposits allows for automated triggers (smart contracts) to move funds. As highlighted in our response to Question 19 regarding operational resilience, while this enhances efficiency, it also introduces the risk of "automated bank runs." Algorithmic triggers could accelerate outflows faster than traditional manual interventions can manage, necessitating "circuit-breaker" logic at the protocol level.

Q29: What are your views on the potential role of MYR-denominated stablecoins? What use cases would benefit most?

Ripple welcomes the development of MYR stablecoins as a critical pillar of the ecosystem. As noted in our response to Question 2, in the absence of a widely available retail CBDC, a regulated, fiat-backed stablecoin represents the most practical settlement asset for the digital economy.

The most impactful use case for the MYR stablecoin lies in:

- Preservation of Monetary Sovereignty: A MYR stablecoin ensures that on-chain value remains anchored to the national unit of account. This protects the "singleness of money" by ensuring that digital value remains interchangeable at par with the physical Ringgit, thereby maintaining the efficacy of domestic monetary policy.
- Facilitating SME Trade and B2B Payments: As demonstrated by the 2026 pilots within the DAIH, MYR stablecoins enable atomic DvP. This allows Malaysian SMEs to receive payments immediately upon the digital verification of a shipment, significantly improving working capital cycles and reducing the need for expensive intermediary credit.
- A Neutral, Bank-Agnostic Settlement Medium: Unlike tokenised deposits, which are liabilities of specific banking institutions, a regulated MYR stablecoin functions as a neutral "cash leg" across diverse DLT platforms. As highlighted in our response to Question 27, this neutrality prevents market fragmentation by allowing participants to settle trades in tokenised bonds or real estate without the prerequisite of holding accounts at the same commercial bank.

Q30: Beyond MYR-denominated stablecoins, what are the opportunities and risks arising from foreign-currency denominated stablecoins?

Ripple believes that building a robust stablecoin market requires allowing a broad mix of stablecoins to circulate, including foreign-currency denominated stablecoins[26]. This variety expands the choice for individuals, businesses, and institutions, and supports innovation in the wider ecosystem, particularly in jurisdictions that aspire to establish themselves as hubs for digital assets and asset tokensation.

In assessing these instruments, it is helpful to distinguish between separate dimensions of risk arising from:

1. denomination in a foreign currency, such as USD; and
2. stablecoins issued or governed outside of Malaysia i.e. overseas-issued stablecoins.

Foreign-currency stablecoins, particularly USD stablecoins, present both strategic opportunities and macro-financial considerations for the Malaysian financial ecosystem.

[26] See https://ripple.com/insights/crypto-interoperability-why-global-regulatory-convergence-is-key-to-stablecoin-fungibility, *Crypto Interoperability: Why Global Regulatory Convergence is Key to Stablecoin Fungibility.*

1. Strategic Complement and Global Liquidity Access

USD stablecoins can serve as a strategic complement to MYR stablecoins. Malaysian financial institutions may leverage USD stablecoin rails to participate more effectively in global digital asset markets, facilitate international trade and support treasury operations that predominantly settle in digital dollars.

A hybrid settlement model may emerge in which foreign-currency stablecoins, such as USD stablecoins, are used for the global leg of cross-border transactions, while MYR stablecoins preserve domestic settlement finality. Such an approach can reduce reliance on multi-layered correspondent banking arrangements, improve transaction speed and lower the operational costs associated with maintaining multiple foreign currency accounts. This may enhance Malaysia's competitiveness in cross-border financial services while retaining domestic monetary anchoring.

2. Macro-Financial Risks and Monetary Sovereignty

The Financial Stability Board ("FSB"), in its report on High-Level Recommendations for the Regulation, Supervision and Oversight of Global Stablecoin Arrangements[27], has highlighted the need for authorities to assess risks to monetary sovereignty and financial stability arising from stablecoin adoption:

- Currency Substitution (Digital Dollarisation): Widespread domestic adoption of USD stablecoins could lead to digital dollarisation, where the Ringgit is displaced as a medium of exchange. This shift could potentially weaken the transmission of BNM's monetary policy and reduce the effectiveness of domestic liquidity management tools.
- Capital Flow Volatility: The ease with which foreign-denominated stablecoins move across borders may amplify capital flow volatility. During periods of market stress, rapid shifts into foreign-currency assets could facilitate swift capital outflows, complicating macroprudential monitoring and stability.

3. Proportionate and Risk-Based Mitigation

Consistent with FSB recommendations and the International Organization of Securities Commissions ("IOSCO")'s emphasis on market integrity and transparency in their report on the Thematic Review Assessing the Implementation of IOSCO Recommendations for Crypto and Digital Asset

[27] See https://www.fsb.org/2023/07/high-level-recommendations-for-the-regulation-supervision-and-oversight-of-global-stablecoin-arrangements-final-report/, *High-level Recommendations for the Regulation, Supervision and Oversight of Global Stablecoin Arrangements: Final report.*

Markets[28], Ripple acknowledges that these risks can be managed through a well-calibrated framework. To mitigate digital dollarisation, BNM could consider a regulatory design where USD stablecoins are utilised primarily for wholesale, cross-border, and treasury-specific use cases, rather than domestic retail payments. By clearly defining these perimeters, BNM can leverage the global liquidity of digital dollars for international trade while ensuring the Ringgit remains the exclusive anchor for the domestic economy.

Furthermore, capital flow volatility is best managed through strictly regulated on- and off-ramps rather than prohibition. By requiring issuers to integrate with local compliance frameworks, such as the FATF Travel Rule and FEP reporting, BNM can achieve significantly greater "look-through" visibility into capital flows than is currently possible through traditional, opaque correspondent banking chains. This creates a "glass pipeline" that allows regulators to monitor and manage capital flows in real-time.

4. Proportionate and Risk-based Approach to Overseas Issuers.

Overseas-issued stablecoins should generally be permitted to circulate in a jurisdiction without a requirement for local issuance so long as reasonable safeguards are in place.

For example, in Singapore, certain overseas-issued stablecoins are regulated as Digital Payment Tokens ("DPTs")[29] rather than being automatically subject to the full Single-Currency Stablecoin ("SCS") regulatory framework[30]. Under this approach, overseas-issued stablecoins are supervised for AML and CFT, consumer protection and market integrity obligations under the Payment Services Act 2019. Requirements relating to value stability and redemption are generally applied to locally issued Singapore-dollar stablecoins that meet specified thresholds. This differentiated perimeter reflects issuance structure and jurisdiction of origin while maintaining supervisory oversight.

5. Supervisory Cooperation and Redemption Safeguards

Beyond domestic perimeter design, cross-border supervisory cooperation is essential.

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[28] See https://www.iosco.org/library/pubdocs/pdf/IOSCOPD801.pdf, *Thematic Review Assessing the Implementation of IOSCO Recommendations for Crypto and Digital Asset Markets.*

[29] See https://www.mas.gov.sg/-/media/mas-media-library/regulation/guidelines/pso/ps-g02-guidelines-on-provision-of-digital-payment-token-services-to-the-public/guidelines-on-provision-of-digital-payment-token-services-to-the-public-ps-g02.pdf, *GUIDELINES ON PROVISION OF DIGITAL PAYMENT TOKEN SERVICES TO THE PUBLIC.*

[30] See https://www.mas.gov.sg/news/media-releases/2023/mas-finalises-stablecoin-regulatory-framework, *MAS Finalises Stablecoin Regulatory Framework.*

Regulators may wish to ensure that overseas-issued stablecoins circulating domestically are subject to robust regulation in their home jurisdiction that meets international standards. This could include requiring legal opinions on home regulatory treatment, establishing information-sharing arrangements and assessing redemption governance frameworks.

Where local issuance or distribution is permitted, regulators may also consider ensuring that redemption obligations can be met in stress scenarios, taking into account globally fungible reserve buffers and liquidity management arrangements.

Close cooperation between supervisory authorities, including regulatory colleges or equivalence assessments, can enhance transparency and enable host jurisdictions to monitor the risks posed by foreign-denominated stablecoins in a coordinated manner.

Q31: How does your institution view the comparative roles of tokenised deposits and stablecoins?

As detailed in our responses to Question 2 and Question 27, Ripple views these instruments as complementary. Tokenised deposits excel in domestic interbank settlement and retail payments where deposit insurance is paramount, while stablecoins (such as RLUSD) are superior for cross-border interoperability and Web3 applications. We reiterate our recommendation that the BNM remain "Settlement Asset Agnostic" to allow FSPs to select the most efficient tool for their specific use case.

Q32: What principles or features are most critical when designing a programmable platform for tokenisation?

Ripple believes that a programmable platform must serve as more than a ledger; it must function as a high-performance financial infrastructure that prioritises security, institutional connectivity, and regulatory compliance. For the Malaysian financial sector to scale tokenisation effectively, platforms must be designed to bridge the gap between decentralised innovation and traditional market requirements.

1. Security-by-Design and Operational Resilience

The foundation of any programmable platform is its ability to ensure the integrity and availability of the ledger under all conditions. Security-by-design entails the use of robust, deterministic consensus mechanisms that provide immediate finality, as opposed to the probabilistic finality found in many public chains. As established in our response to Question 19 regarding operational resilience, platforms should ideally support formal verification—a process that uses mathematical proofs to ensure smart contracts behave exactly as intended. This technical rigour is essential for mitigating the risk of coding vulnerabilities that could lead to the permanent loss or freezing of capital.

2. Institutional Interoperability and Standardisation

A programmable platform cannot thrive in isolation. It must be capable of integrating with existing financial market infrastructure, such as RENTAS, and adopting global messaging standards like ISO 20022. As noted in our response to Question 13, interoperability is the key to preventing the creation of liquidity silos. By ensuring that the platform can communicate seamlessly with legacy banking cores and other DLT networks, Malaysia can foster a unified ecosystem where value moves without technical friction, thereby increasing the utility of tokenised deposits and stablecoins across different banking institutions.

3. Atomic Settlement and Deterministic Finality

To eliminate settlement and counterparty risk, a platform must support atomic DvP. This ensures that the transfer of the tokenised asset and the payment leg occur simultaneously and are interdependent. As established in our response to Question 2, the XRP Ledger provides deterministic finality with settlement times of 3-5 seconds. This speed is critical for institutional use cases where the latency inherent in traditional T+2 systems would negate the capital efficiency gains of tokenisation. High transaction throughput is equally vital to ensure the platform can handle the peak loads required for a national or regional digital economy.

4. Embedded Compliance and Programmability

A critical feature for 2026 is the ability to embed compliance logic directly into the asset's code. Rather than relying on manual, "after-the-fact" checks, programmable platforms allow for automated enforcement of KYC, AML, and specific transfer restrictions. As established in our response to Question 15, this "Compliance-by-Design" approach ensures that transactions remain within the legal perimeter at the point of execution. For example, a tokenised bond can be programmed to automatically reject a transfer if the recipient is not a verified,

eligible investor, significantly reducing the administrative burden on issuers and regulators alike.

The design of a programmable platform determines the long-term viability of the tokenisation ecosystem. By prioritising security-by-design, institutional interoperability, atomic finality, and embedded compliance, Bank Negara Malaysia can ensure that its digital infrastructure is not only innovative but also stable and resilient. Ripple maintains that these principles are the necessary prerequisites for moving tokenisation from experimental pilots into a mature, systemic capability for the Malaysian financial sector.

Q33: What factors would influence your institution's choice of a public or private programmable platform?

The choice is primarily driven by the trade-off between network effects and operational control. As discussed in our response to Question 10 and Question 32, Ripple advocates for institutional-grade public networks like the XRP Ledger to avoid vendor lock-in and maximise liquidity. However, for specific, highly sensitive interbank functions, we acknowledge the role of private networks in ensuring extreme data privacy, as seen in the "Project Ubin" model.

Q34: What are the benefits, risks and challenges in implementing a permissioned access framework on public programmable platforms?

Ripple is a strong proponent of public, permissionless ledgers like the XRP Ledger (XRPL), which provide the foundational resilience and global reach necessary for modern finance. However, we recognise that institutional adoption requires a "Permissioned-on-Public" model—layering controlled access onto open-source infrastructure. This approach ensures that while the underlying network remains decentralised and robust, the financial activities occurring on top of it meet the rigorous regulatory standards of the Malaysian market.

1. Benefits: Global Liquidity with Local Compliance

The primary benefit of this model is the ability to tap into global, 24/7 liquidity pools while maintaining strict KYC/AML oversight. By implementing permissioned domains or "hook" logic at the application layer, institutions can ensure that only verified participants (vetted by licensed gatekeepers) can hold

or transfer specific tokenised assets. This allows Malaysian financial institutions to benefit from the network effects of a global ecosystem without compromising on jurisdictional requirements. As established in our previous responses, this "Compliance-by-Design" approach turns regulatory rules into technical certainties, reducing the need for manual, reactive monitoring.

2. Risks: Technical Interdependencies and Oracle Reliability

A key technical risk is the reliance on "Oracles" or external data feeds to verify off-chain identity credentials in real-time. If these data feeds suffer from latency or become compromised, the "gatekeeper" logic could inadvertently freeze legitimate transactions or, conversely, allow unauthorised actors to interact with restricted pools. Furthermore, as noted in our response to Question 19 regarding operational resilience, the complexity of managing these permissioned layers increases the "attack surface" of the smart contract. A coding vulnerability in the access control logic could lead to significant operational disruptions that, while not affecting the underlying public ledger, would impact the utility of the specific tokenised instrument.

3. Challenges: Balancing Transparency with Data Privacy

A significant challenge lies in aligning the inherent transparency of public ledgers with the strict data privacy requirements of the Malaysian financial sector. While public ledgers are excellent for auditability, they require sophisticated "Privacy-Preserving" technologies (such as Zero-Knowledge Proofs or off-chain data sidechains) to ensure that sensitive transaction metadata is not exposed to the broader network. Additionally, as noted in our representations to the Securities Commission, there is a governance challenge in managing "Allowed Lists" across different jurisdictions. Ensuring that a digital identity verified in Malaysia is recognised seamlessly across a global public network remains a primary hurdle for cross-border interoperability.

Q35: Would your institution support the development of a common programmable platform for industry testing?

Yes, Ripple would support the idea of a neutral, common programmable test platform to accelerate innovation and interoperability.

Q36: How does your institution evaluate the long-term scalability and integration potential of a programmable platform?

Ripple has no comments on this question.

Q37: What are your views regarding these design considerations? Are there other considerations that might be relevant?

Ripple broadly supports the design considerations outlined in the Discussion Paper, particularly the emphasis on "Compliance-by-Design" and the "Same Activity, Same Risk, Same Regulatory Outcome" principle. To move tokenisation beyond experimentation, these parameters must accommodate institutional complexity while remaining technologically flexible.

We welcome the focus on known, accountable actors and the preservation of the Singleness of Money. As established in our response to Question 34, Ripple believes that layering permissioned access onto public, permissionless ledgers (such as the XRPL) provides the optimal balance between global resilience and local regulatory control.

However, to prevent innovation bottlenecks, we suggest expanding the design pillars in the following areas:

1. Legal Status: The "Statutory Look-Through" Principle

Legal status should be elevated from an "other consideration" to a primary design pillar. As discussed in Question 22, Malaysian law must provide a "Statutory Look-Through" mechanism. This ensures that the on-chain record is recognised as the definitive source of ownership. Without this clarity, tokenised assets may be viewed as higher-risk derivatives of off-chain assets, leading to punitive risk-weighting and capital inefficiency for financial service providers (FSPs).

2. Accounting and Prudential Valuation

A critical gap exists in the standardisation of accounting treatments. Under MFRS standards, a tokenised bond should mirror its traditional counterpart; however, if the token provides enhanced liquidity or different settlement finality, market values may diverge. BNM should provide a framework for valuing these assets during periods of high volatility or in the event of a protocol fork to ensure reporting consistency across the sector.

3. Dual-Layer Governance and "Duty of Care"

We support the distinction between platform-level and transactional-level governance.

- Platform Governance: Ensures the ledger's integrity (e.g., validator selection).
- Transactional Governance: Ensures asset compliance (e.g., smart contract logic).

A critical consideration is the "Duty of Care" for platform operators. A clear legal framework must define liability for systemic technical failures versus individual transaction errors to protect participants in a multi-FSP shared environment.

4. Operational Resilience and Smart Contract Integrity

Cybersecurity requirements should be explicitly mapped to RMiT guidelines. As noted in our response to Question 32, we advocate for "Formal Verification" that uses mathematical proofs to ensure code cannot be exploited.

BNM could consider establishing a "National Smart Contract Registry", a supervised repository of formally verified, audited templates for common financial actions (e.g., escrow or coupon payments). This would lower the barrier to entry while ensuring systemic security.

5. Interoperability as a Mandatory Requirement

Interoperability must be a core design requirement rather than an optional feature. As established in our response to Question 10, the risk of "Liquidity Silos" (Walled Gardens) is high if institutions build fragmented, private platforms. Any tokenisation use case should demonstrate the ability to interact with a common programmable platform or bridge to existing infrastructure, such as RENTAS, to ensure a unified Malaysian financial ecosystem.

Q38: What regulatory requirements need to be clarified to facilitate safe tokenisation exploration? Are there constraints that could hinder implementation?

Ripple believes that while the technical feasibility of tokenisation is well-established, its institutional scalability in Malaysia depends on resolving specific regulatory and statutory ambiguities. To facilitate a safe transition from proof-of-concept to production, clarity is required in the following primary areas:

- Codifying Legal Settlement Finality for DLT: The current statutory silence regarding "Settlement Finality" in a decentralised environment remains a

significant hurdle. Under the FSA Act and PSA Act, finality is traditionally tied to the books of a central intermediary. BNM must clarify whether a transaction that is "technically final" on DLT via atomic settlement is also "legally final" and irrevocable in the event of a participant's insolvency. Without this legal certainty, as established in our response to Question 2, banks may be forced to maintain parallel legacy records, negating the efficiency and capital gains of the technology.

- Statutory Recognition of Authoritative Digital Registers: Existing laws, including the SICDA, generally contemplate centralised registers. As detailed in our response to Question 2, a major constraint for native on-chain issuance is the lack of a clear legal pathway for a DLT-based record to serve as the definitive, legally recognised register of members or holders. Providing a roadmap for the transition from "Digital Twins" to Native RWA Tokens requires legislative confirmation that an authorised DLT register carries equivalent evidentiary weight to traditional centralised entries, enabling the "Statutory Look-Through" established in Question 37.

Clarification on Prudential Treatment and Capital Charges: FSPs face a significant economic hurdle if tokenised versions of High-Quality Liquid Assets (HQLA), such as government bonds or high-grade corporate sukuk, are subject to higher capital charges simply due to their digital form. Ripple recommends that the BNM aligns with emerging international standards, such as those from the Basel Committee, to ensure that "Same Risk, Same Activity" results in "Same Capital Treatment." This ensures that the prudential framework supports, rather than hinders, institutional participation and liquidity efficiency.

Cross-Border Interoperability and Mutual Recognition: To prevent market fragmentation, the BNM should pursue regulatory harmonisation with regional peers, such as the MAS in Singapore and the HKMA in Hong Kong. Cross-border tokenisation use cases, such as the 24/7 trade payments discussed in Question 29, rely on the mutual recognition of registered ownership frameworks. Establishing "Equivalence Arrangements" for these frameworks will be critical to ensuring that Malaysian FSPs can compete effectively in a global tokenised economy and avoid a "Compliance Gap" where assets are treated differently across jurisdictions.

Q39: How will tokenisation affect your ability to comply with technology-related regulatory requirements, such as the Risk Management in Technology (RMiT) document?

Tokenisation does not bypass RMiT; it requires an evolution of its application. As noted in our response to Question 13, Ripple's practice of ensuring the encryption of private keys and the use of multi-signature authorisation aligns with the RMiT's focus on data integrity. However, tokenisation introduces new risks regarding protocol governance and smart contract vulnerabilities. Ripple would welcome specific guidance from the BNM on how to perform third-party risk management for decentralised protocols, as these do not fit neatly into the traditional vendor-client relationship.

Q40: Are there any other barriers that would prevent participation in tokenisation exploration and adoption?

Malaysia is at a unique inflection point in its digitalisation journey. BNM has shown significant leadership through DAIH, which recently onboarded its first 2026 pilot cohort, including Maybank, CIMB, and Standard Chartered, to test wholesale ringgit stablecoins and tokenised deposits[31]. Simultaneously, the SC is concurrently leveraging its aFINity engagement hub to vet new models while advancing its inaugural Regulatory Sandbox cohort, featuring firms like KLDX and Wahed X that utilise 'Digital Twin' tokenisation to enhance secondary market vibrancy and real estate accessibility[32].

While this dual-track momentum is encouraging, the absence of a clearly articulated, coordinated roadmap between the two regulatory domains may become a structural barrier to broader institutional adoption.

Beyond the technical and operational considerations previously discussed, the primary constraint on scalability is regulatory fragmentation between the banking and capital markets frameworks. Tokenisation inherently spans ownership rights, settlement mechanisms, prudential treatment and payment system oversight. Where standards, legal recognition and supervisory expectations evolve independently, institutions may face uncertainty regarding

[31] See https://www.bnm.gov.my/-/daih-upd, *Digital Asset Innovation Hub Charts 2026 Strategy with Focus on Ringgit Stablecoins and Tokenised Deposits.*

[32] See https://www.sc.com.my/resources/media/media-release/sc-announces-first-cohort-of-regulatory-sandbox-participants, *SC Announces First Cohort of Regulatory Sandbox Participants.*

enforceability, settlement certainty and balance sheet treatment. This uncertainty can slow investment and limit participation.

At present, much activity remains focused on models that mirror traditional off-chain records with digital representations. While this transitional approach is prudent, prolonged reliance on parallel record-keeping may constrain scalability and dilute efficiency gains. A clearer shared direction on when and how tokenised records may be recognised as legally authoritative would strengthen institutional confidence and reduce duplicative processes.

In addition, the full benefits of synchronised or real-time settlement depend on alignment between tokenised capital market instruments and compatible digital settlement assets. If tokenised securities are developed without a corresponding pathway for regulated forms of digital money, institutions may not be able to realise the efficiency and risk-reduction benefits associated with integrated digital infrastructure. Coordinated policy development across both regulatory perimeters would help address this gap.

Finally, as innovation initiatives continue across different regulatory platforms, clearer transition pathways and harmonised supervisory expectations would support scalability. Participants should be able to move from experimentation to deployment without encountering conflicting standards or duplicative oversight.

Ripple therefore encourages continued collaboration between BNM and the SC to articulate a unified roadmap for tokenised market infrastructure. Greater alignment on legal recognition, settlement certainty, prudential treatment and digital payment instruments would reduce structural barriers and enhance Malaysia’s position as a credible and stable tokenisation hub.