

Regulated Liability Network (RLN)

Creating a better way to handle trusted promises to pay

RLN is a concept for upgrading sovereign currency systems with shared ledger technology, creating a financial market infrastructure (FMI) that facilitates digital asset transactions and connects deposits held at regulated financial institutions. Using distributed ledger, it would provide a multi-asset, always-on, programmable infrastructure containing digital representations of central bank, commercial bank, and regulated non-bank issuer liabilities.

RLN could solve many of the challenges of existing infrastructure and emerging digital assets, creating a better way to process the trusted promises to pay that are the core of regulated liabilities. Today, market participants each use proprietary databases running in their own data centers. Traditional payments are made by messaging between the 'islands of data,' creating convoluted reconciliation and settlement processes that lead to friction and delays.¹

RLN enables interoperable transfer and settlement of digital assets between regulated financial institutions. It operates only with digital monies that are considered regulated liabilities. RLN would incorporate emerging Central Bank Digital Currencies, tokenized commercial bank deposits, and could include stablecoins as and when they are regulated.

Using distributed ledger, participants gain a common source of truth as well as operational efficiencies, faster payment and expedited settlement (both DvP and PvP). RLN could run in parallel to existing payment processes and messaging protocols, offering a path to adoption without undue market stress. From a small number of initial use cases, the network can grow, complementing and potentially replacing less efficient messaging and payment systems.

RLN offers the potential for a new global settlement infrastructure based on regulated issuers and instruments, allowing tokenized, programmable money to be interoperable across different regulated issuers.



A new FMI run in accordance with the Principles for Financial Market Infrastructures (PFMI)



Regulated liabilities are readily exchangeable with traditional account-based forms of money at par value: they are effectively the same legal instrument.



Accelerated settlement without friction improves payments and creates a platform for responsible innovation



As RLN expands across jurisdictions, oversight would extend to include regulatory arrangements such as Continuous Linked Settlement (CLS)

Trends in Payments

The value of international payments is expected to stand at US \$250tn in 2027. [\(Bank of England\)](#)

By 2030, DLT-based trade finance volumes are predicted to reach \$1tn. [\(Citi\)](#)

Tokenization is expected to grow by a factor of 80 times in private markets, reaching up to almost \$4tn in value by 2030. [\(Citi\)](#)

Digital Asset

Digital Asset is building the network for RLN with Daml and Canton

Digital Asset was an [early and active participant](#) in RLN, working to create a network of networks to de-risk and accelerate commercial bank payments by connecting the liabilities of all mainstream finance players. Using Daml smart contracts and the Canton privacy-enabled network, every use case and application developed for RLN is extensible. This lets solutions developed today work with existing payment rails and expand to additional use cases and more participants. As CBDCs come online, they can connect to the network to deliver even greater functionality.

“The findings confirm that the RLN could be a real game-changer for global users of the U.S. dollar, eliminating delays, reducing costs and increasing transparency of cross-border payments without compromising safety and soundness.”

Jane Fraser, CEO, Citi

Validated by pilots, supported by Digital Asset

Recent RLN pilots in the UK and US have tested the transfer of funds from one entity through multiple intermediaries to the ultimate recipient. Both pilots were built with Daml and Canton, with Daml modeling RLN workflows and transactions taking place on a Canton network. Their success proves that RLN is buildable, scalable and can support the defined use cases.

UK Pilot - involved multiple global financial institutions and infrastructure providers

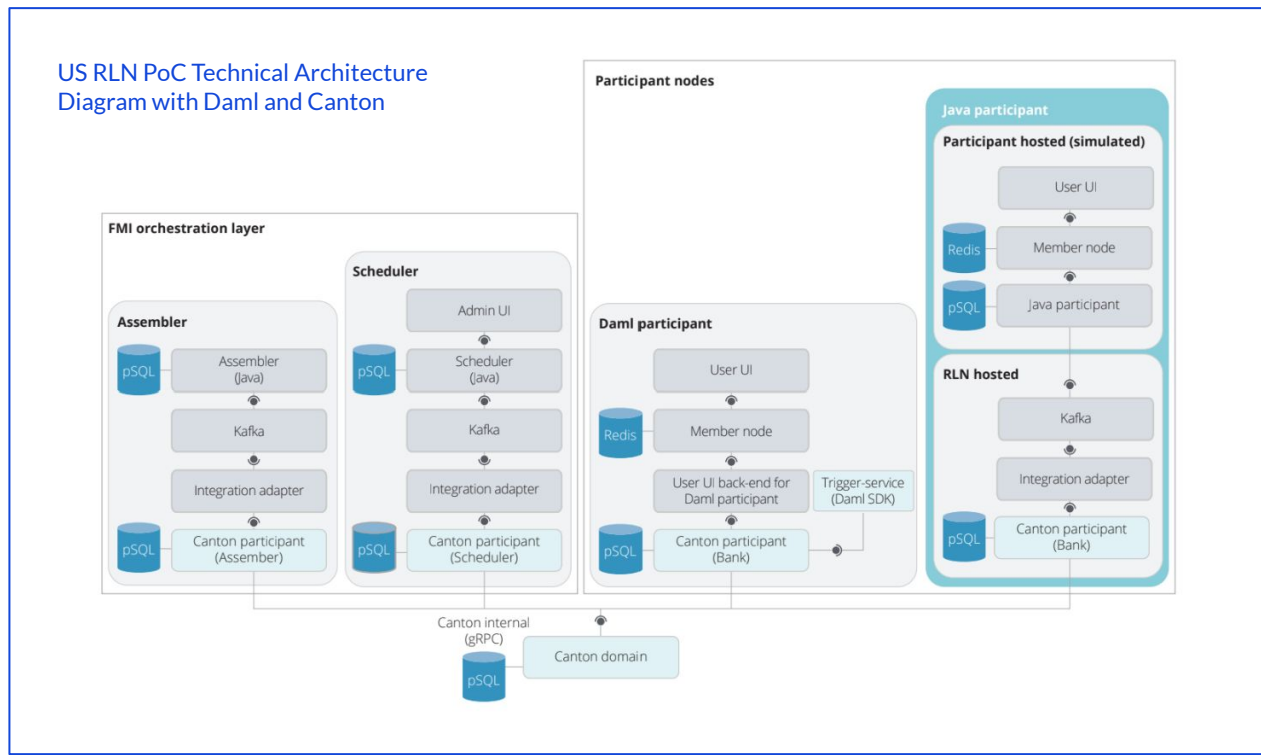
- Tested instant settlement for domestic and international (UK-US) transactions.
- Seven participants completed community and performance testing to assess desirability and whether RLN could solve existing pain points for banks and multinationals.
- The pilot met eight success criteria to prove technical feasibility, including tokenizing participants' liabilities in their partition in real time and the burning/minting/transferring of liabilities across the end-to-end process.
- Participants gained a better understanding of instant settlement and possible technical solutions needed, including potentially managing the speed and scale of 10,000 transactions per second.
- The pilot demonstrates that RLN is technically feasible. Further, since RLN only includes regulated liabilities, there is no compromise to safety or soundness and it can be implemented into existing market infrastructure.

US PoC - 11 private sector participants joined the NY Innovation Center, part of the Federal Reserve Bank of NY

- Explored the feasibility of an interoperable network of digital central bank liabilities and commercial bank digital money using distributed ledger technology. The Fed and its customer banks moved value across the network on a near-instant basis using tokenized regulated liabilities (commercial bank tokens and a theoretical wholesale CBDC),
- Domestic interbank payments and cross-border payments, both using USD, were successfully tested. Funds moved between the Fed's ledger and interbank ledger.
- The PoC evidenced the feasibility of global, near real-time, 24/7 dollar payments with secure, atomic settlement and the ability to use programmability to expand use cases.
- Participant: BNYM, Citi, Digital Asset, HSBC, Mastercard, PNC Bank, Swift, TD Bank, Truist, U.S. Bank and Wells Fargo.

Digital Asset

By creating a regulated Financial Market Infrastructure, RLN could deliver an interoperable network of all facets of the sovereign currency system: central bank money, commercial bank money, and e-money.²



These pilots allowed participating banks to understand the real benefits of RLN, including the role that smart contracts could play. With results showing that RLN is a viable and executable construct, next steps include a deeper exploration of programmability and use cases that extend beyond payments to asset movements and transfers to test DvP. Work on non-functional requirements, including commercial, operational, legal and governance components, will also continue as the technical sandbox expands.

“Capabilities like smart contracts can bring programmability to transactions to do things such as enabling payments to happen only when desired conditions are met. This has the potential to greatly enhance risk management and also to significantly improve liquidity management.”

Susan Hawkins, EVP, Enterprise Payments, TD Bank

^{1,2} [Regulated Liability Network, Digital Sovereign Currency](#) whitepaper, Nov 2022

Digital Asset

Digital Asset is an enterprise software company that modernizes legacy financial systems with Daml, our smart contract language, and Canton, our privacy-enabled blockchain platform. Together, this platform powers cutting-edge smart contracts and blockchain solutions, helping customers unlock new networks of value with sophisticated applications. Leading financial services, insurance, and healthcare organizations are partnering with Digital Asset to create new, multi-party solutions that transform disparate silos into synchronized networks.

Learn more and view additional case studies at digitalasset.com, or



Download Daml

and view our reference applications at <https://daml.com>



Connect with us on Twitter

[@digitalasset](#) and [@damldriven](#)



Set up a call or meeting

by contacting us at sales@digitalasset.com