

# Bitcoin, Blockchain, and Cryptocurrencies

## Blockchain for Payments, Securities and Settlement

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# Agenda

- Blockchain for Interbank Settlement
- Blockchain for Securities
- Blockchain for Cross-Border Retail Payments

# Blockchain for Interbank Settlement

- Bank centric, fully reserved, central bank issued digital fiat tokens
- Initial use case discussed- DVP
- Key Goals
  - Final and irrevocable (deterministic consensus)
  - Privacy
  - Queue management – no gridlock
  - Can operate totally decentralized
  - Capacity/throughput

# Blockchain for Interbank Settlement

- **Jasper** – Bank of Canada, Canada Payments, R3
- **Stella** – Bank of Japan, European Central Bank
- **Utility Settlement Coin (USC)** – Commercial bank consortium
- **Ubin** – Monetary Authority of Singapore, R3, commercial bank consortium

# Blockchain for Securities Processing

## *The Impact and Potential of Blockchain on the Securities Transaction Lifecycle*

SWIFT estimates costs are about \$40 billion worldwide for clearing and settlement alone, mainly for reconciliation and manual processing

The challenge of using mutual distributed ledger in securities settlement is not just demonstrating technical feasibility but also a coordinated reengineering of business processes across multiple firms

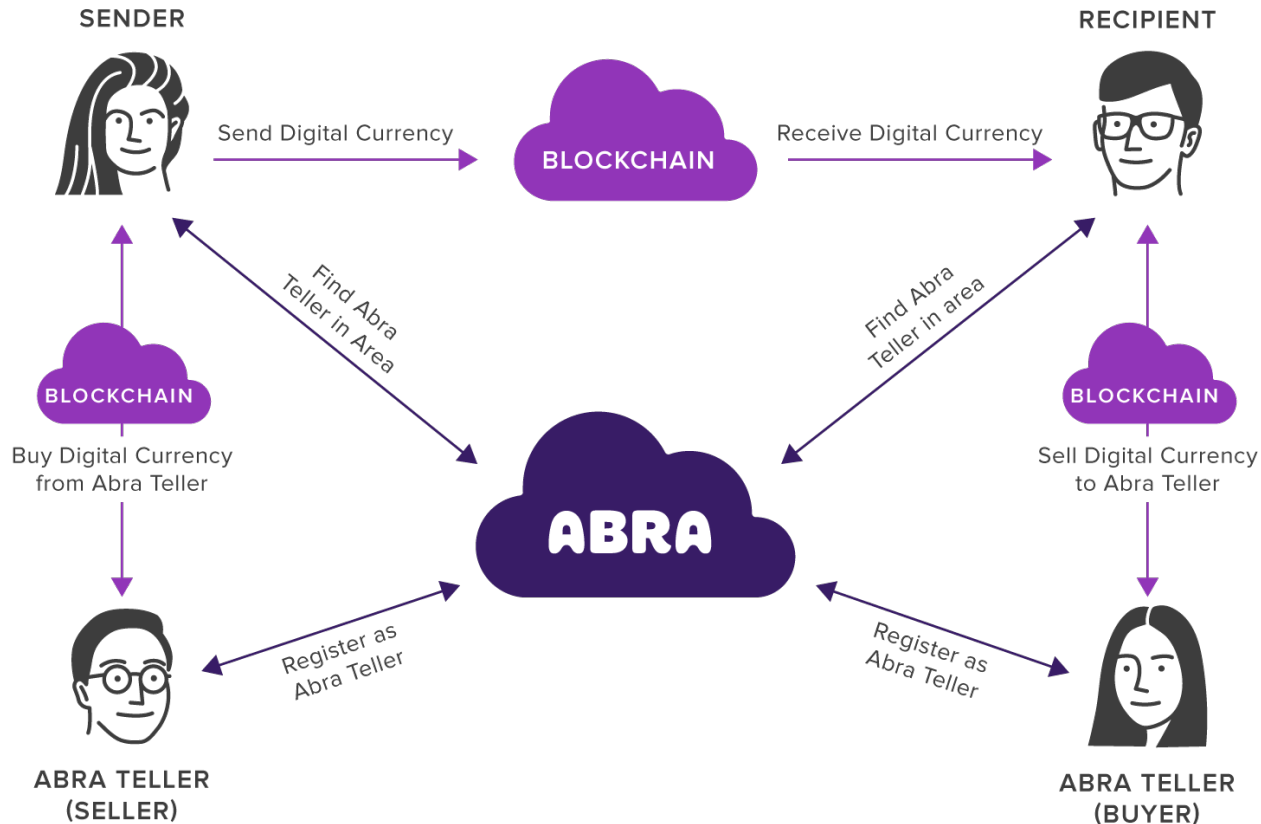
# Blockchain for Securities Processing

- NASDAQ: traded private securities on its Linq platform
- DTCC: live blockchain platform for credit default swaps by Q1 2018
- Daimler floated part of €100 German bond in June 2017 on a blockchain
- Australian Stock Exchange (ASX) is testing a blockchain based platform from DAH to replace its CHESS platform
- Overstock closed the first ever Series A (\$1.9 million) round via its tØ blockchain platform

# What's Happening in the World of Retail Payments?

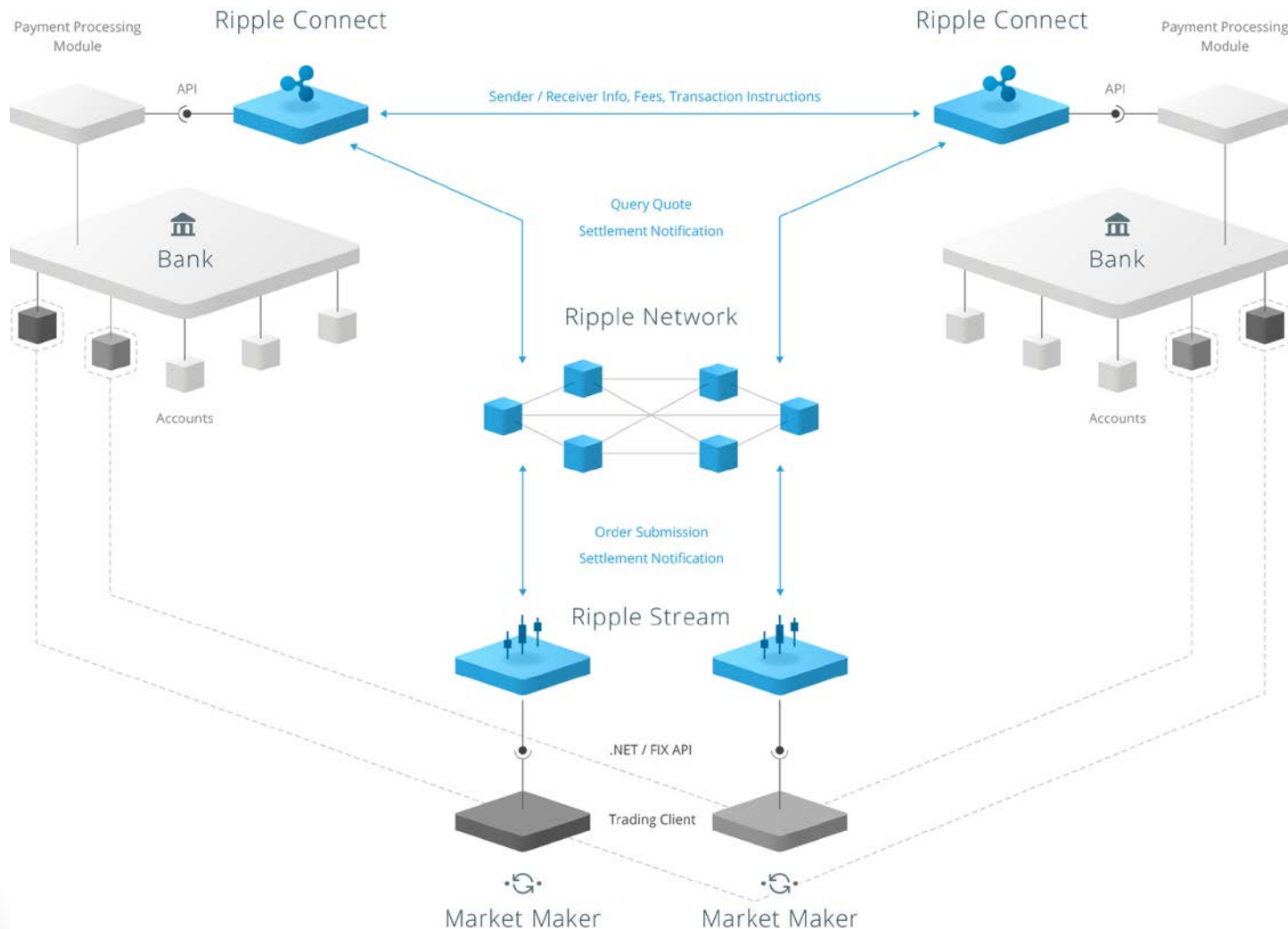
- **Ripple (US), has two payment models**
- Wyre (US), but just expanded to China
- Rebit (Philippines)
- Coins (Philippines)
- **ARBA (US, Philippines)**
- Earthport (London), Established payments company adds DLT via Ripple Network
- Coinify (Denmark)
- Uphold (US, London)
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# What's Happening in the World of Payments: ABRA





# What's Happening in the World of Retail Payments: RIPPLE



# General Observations Across Initiatives

- Real solutions are starting to emerge, but are likely three to five years from broad adoption
- Many current platforms have promise, but are generally not ready for production scale
- We tend to overestimate the impact of technology in the short run and underestimate it in the long run
- Business/trust models are more challenging than the technology
- Disrupters begin, incumbents defend, partnerships succeed