Research Overview

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  My research projects aim at bridging the large gap between cryptographic research, and systems security & privacy research

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- Topics of Interest
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  - Privacy Issues in the Emerging Scenarios such as online advertising, P2P networks and delay-tolerant networks

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- Recent Focus:

Privacy and trust issues with emerging
crypto-currencies and payments networks

Cryptocurrencies

Bitcoin and Altcoins

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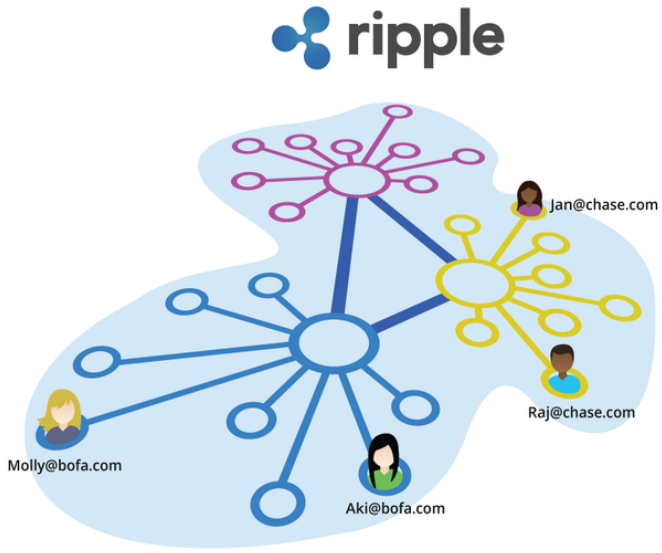
Privacy and Trust Issues

- Given the public nature of the system, privacy is challenge
  [CoinShuffle, ESORICS '14]
- Double-spending for fast payments is yet being achieving
  [Asynchronous Payment Channel, ACM CCS' 15]
- Potential applications are not yet fully explored

IOweYou Payment Networks

Ripple (or Stellar)



- Real-time payments across continents
- backbone for the current banking systems

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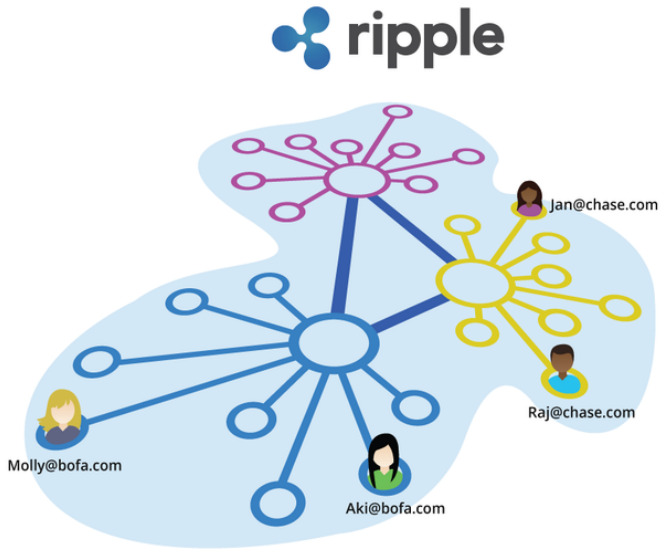

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Privacy and Trust Issues

- Again, privacy is challenge
- A centralized trusted hardware-based solution

[PrivPay, NDSS' 15]