Cross-Ledger Interoperability

IETF113 Side Meeting

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Problems

- Poor (no) interoperability across ledgers today
- Desirable "interoperability" features:
  - Digital assets can freely move across ledgers
  - Satisfying Atomicity & Consistency properties
  - Satisfying Security & Integrity properties
- Hype and lack of infrastructure investments

Gateway Model

- Lessons learned from the Internet Architecture

- One or more Gateways in front of ledger

  - BGP model

  - Gateway hides interior ledger characteristics

- Pairs of gateways implement *Secure Asset Transfer* protocol (ODAP draft)

Scope of Work: Asset Transfer Protocol
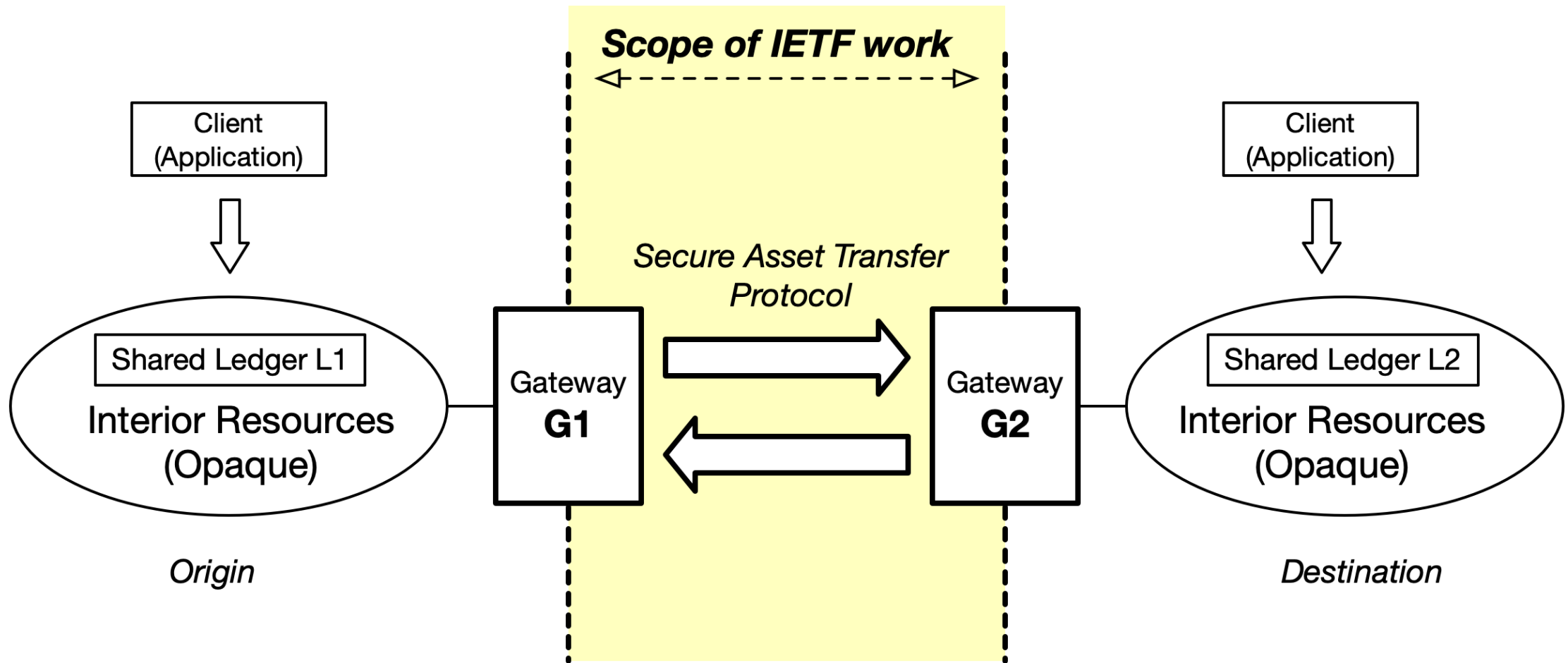
Scope of Work: Asset Transfer Protocol

- Gateway API-endpoint definitions

- Resource identifiers

- Message payload definition (JSON/JWTs/JOSE)

- Message flows – 2 phase commit

List of current technical specifications

- Gateway architecture draft

- Secure Asset Transfer protocol draft

- Gateway Crash Recovery draft

- Gateway Discovery draft

- Data sharing/export

ledger.mit.edu/ietf

Welcome to join IETF Interop Discussion Group

- Group has been meeting bi-weekly since Sept 2020
  - Average 12-15 people each meeting
- Operates under IETF IPR Rules (IETF Note Well)
- Regular meeting information
  - Every second Tuesday 8am-PST/ 11am-EST/ 16:00-UK
  - Zoom

- IETF mail-list
  - https://www.ietf.org/mailman/listinfo/blockchain-interop

Plans

- BOF in IETF114 July (Philadelphia)

- Focus of WG on Secure Asset Transfer protocol

- Security Area or Applications Area

Thank You & Questions

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