FastUnlock
Send my coin object to Bob
Send my coin object to Bob

Authentication

Do you own the object?
Send my coin object to Bob

Authentication

Do you own the object?

Execute TX if

object ownership (signatures)
Send my coin object to Bob

Authentication

Do you own the object?

Execute TX if

object ownership (signatures)
Send my coin object to Bob

Authentication

Is it past 12:00?

Execute TX if

> 12:00 | ≤ 12:00
The Problem

V1
V2
V3
V4
User

Send TX

⏰ > 12:00
The Problem

Send TX
✅ > 12:00

Echo TX
🚫 coin stuck
The Solution
Send my coin object to Bob

Authentication

Did my plane land?

Execute TX if

Event E happened on chain C
Execute TX if

object ownership (signatures)

⏰ > 12:00  |  12:00 < ⏰

📅 Event E happened on chain C
The Grammar

Execute TX if

- object ownership (signatures)
- Event E happened on chain C
- Clock > 12:00 | 12:00 < Clock

AND | OR
Execute TX if

- object ownership (signatures)
  - Clock > 12:00 | 12:00 < Clock
  - Event E happened on chain C

- AND  |  OR

- People and People

Diagram: Network of interconnected nodes.
How to fix this?

V1
V2
V3
V4
User

Send TX
> 12:00

Echo TX
coin stuck
Overview

Make UnlockReq
Collect UnlockVotes
Assemble UnlockCert
Assemble EffectCert

Update object version; same as before
Overview

User

Make UnlockReq
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V1
V2
V3
V4
Overview

User

Make UnlockReq
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Update object version; same as before
**Protocol Flow**

User → **Make UnlockReq** → V1 → V2 → V3 → V4 → Consensus

- **Collect UnlockVotes**
  - Validators promise: only consensus can update this object

- **Assemble UnlockCert**
  - Carry `cert` if any

- **Assemble EffectCert**
  - Execute `cert` if any; otherwise bump version