Cross 2021

Cross Hyperledger Fabric Transactions

Gewu Bu, Riane Haouara, Thanh-Son-Lam Nguyen, Maria Potop-Butucaru

NPA, LIP6, Sorbonne Université, Paris, France
What will a hungry rich foreigner do?
What will a hungry rich foreigner do?
What will a hungry rich **foreigner** do?
What will a hungry rich **traveler** do?
Digital Currencies
What will a hungry rich traveler do?

How to interact with different blockchains systems?
Interaction with different blockchains
(Cross chains transactions)
Interaction with different blockchains
(Cross chains transactions)

1 Centralized trading center
Interaction with different blockchains (Cross chains transactions)

1 Centralized trading center

2 Distributed ledger platform
Interaction with different blockchains (Cross chains transactions)

1 Centralized trading center
2 Distributed ledger platform
3 Atomic cross chain swap
Hyperledger Fabric
a private chain solution

Flexibility x Scalability
Hyperledger Fabric

a private chain solution
Cross Hyperledger Fabric Transactions

HF_1

HF_2

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Logic relation

HF_1  HF_2

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HF_1

HF_2

B1

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HF_1

B1

Annoncement

HF_2

B2

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HF_1

B1

B1'

HF_2

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Cancellation Block

Announcement

Rolback
Cross Hyperledger Fabric Transactions

- Atomicity:
- Consistency:
- Isolation:
- Durability:
Evaluation

Client 1

In France
Double- CPUs of 2.6GHz
RAM of 4GB
Ubuntu 16.04.5 LTS
Hyperledger Fabric:1.4.1
Raft consensus core.

Client 2

In Germany
Double- CPUs of 2.6GHz
RAM of 4GB
Ubuntu 16.04.5 LTS
Hyperledger Fabric:1.4.1
Raft consensus core.

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Evaluation

Hyperledger Fabric In France

Hyperledger Fabric In Germany

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Evaluation

End-To-End Delay (ms)

Number of Transaction

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Evaluation

![Graph showing End-To-End Delay (ms) vs. Number of Transaction]

- **End-To-End Delay (ms)**
- **Number of Transaction**

22pm

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Evaluation

![Graph showing the relationship between success rate (%) and transaction intervals (ms).](image-url)
Issue 1

Hyperledger Fabric In France

Client 1

Orders

Peer1

Peer2

Organization

B1 B2 B3 B4

Hyperledger Fabric In Germany

Client 2

Orders

Peer1

Peer2

Organization

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Issue 1

Hyperledger Fabric
In France

Orders

Peer1  Peer2
Organization

B1  B2  B3  B4

Hyperledger Fabric
In Germany

Orders

Peer1  Peer2
Organization

B1

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Issue 1

Hyperledger Fabric
In France

Client 1

Ordrers

Peer1
Peer2

Organization

Hyperledger Fabric
In Germany

Client 2

Ordrers

Peer1
Peer2

Organization

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Issue 2

Hyperledger Fabric In France

Hyperledger Fabric In Germany

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Future Works

1 Networking Layer Tolerance

2 Formal Proof
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Thank you!

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