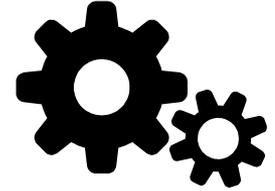# Blockchain
for Education

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THAILAND

NECTEC
a member of NSTDA

Our Journey

Understand and compare → Deep dive → Partner → Apply

Our Journey
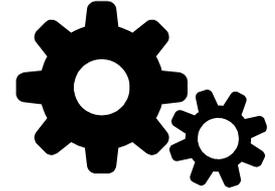
Understand and compare → Deep dive → Partner → Apply

Understand & Compare

1.

Hyperledger Fabric Vs. Ethereum

Analysis and Comparison of Blockchain 2 Platforms

Presented at ICCCN 2017

Article

Throughput of **Hyperledger Fabric** Vs. **Ethereum**
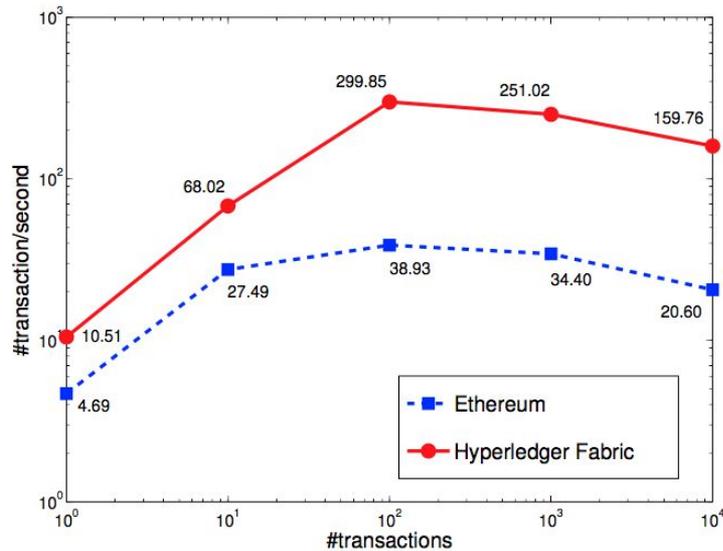
Latency of **Hyperledger Fabric** Vs. **Ethereum**
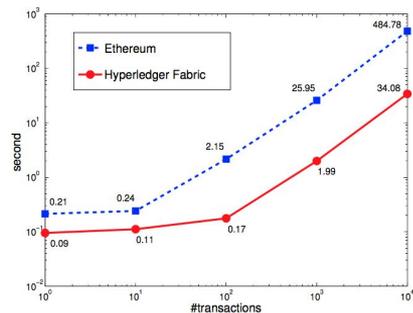
Our Journey
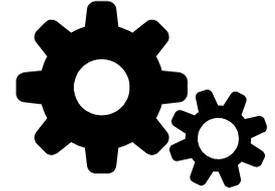
Understand and compare → Deep dive → Partner → Apply

2.

Deep Dive
into Hyperledger Fabric

Data propagation of **Hyperledger Fabric**

How data propagate under different network setups

Our Journey
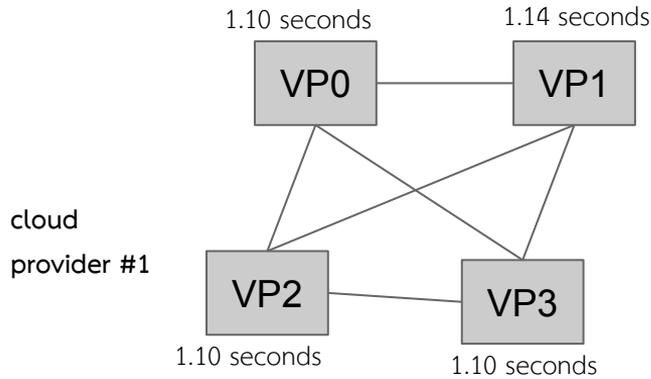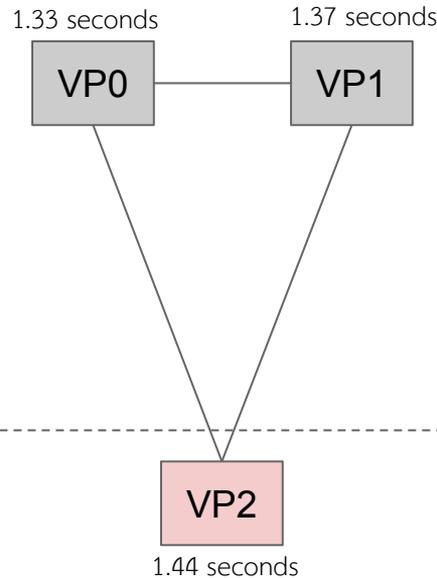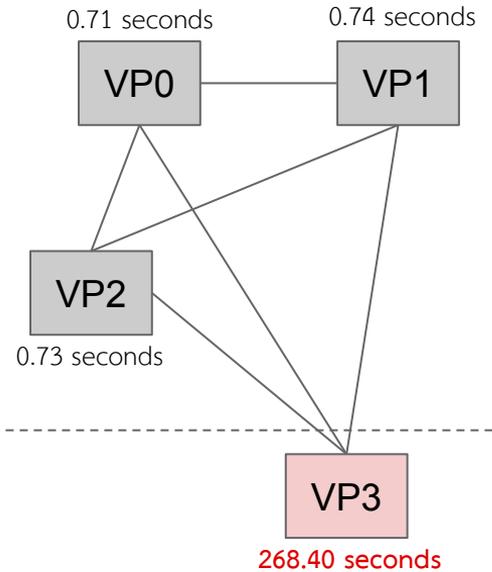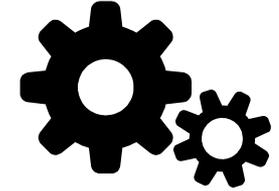
Understand and compare → Deep dive → Partner → Apply

3.

Partner
to develop Blockchain applications

Using Hyperledger Fabric

FinTech Partners
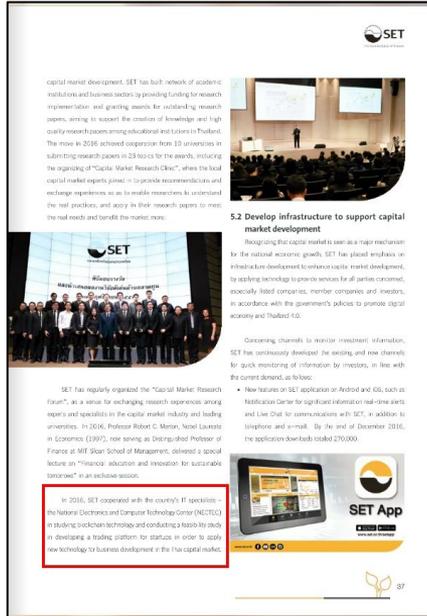
Assessment of capabilities and limitations of blockchain platform for developing a stock market
with **SET**

Evaluation of solution designs of E-LG on blockchain for 14 Thai banks
with **KBTG**

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Our Journey
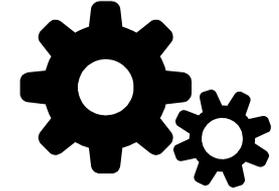
Understand and compare → Deep dive → Partner → **Apply**

4.

Build an application
to record Education Certificates

Under Hyperledger Fabric 1.0

Problem with current approach

- Losses of paper certificates
- Frauds in education certificates
- Difficulty in verifying authenticity
- Disconnected lifelong learning records

Proposed Blockchain Solution

Lifelong Learners

Learning Institute

Professional learning institute records students' certificates on blockchain.

Private Blockchain Network

Each student can share their own certificate on social feeds

Each student can send their collection of lifelong, tamper-proof certificates to employers

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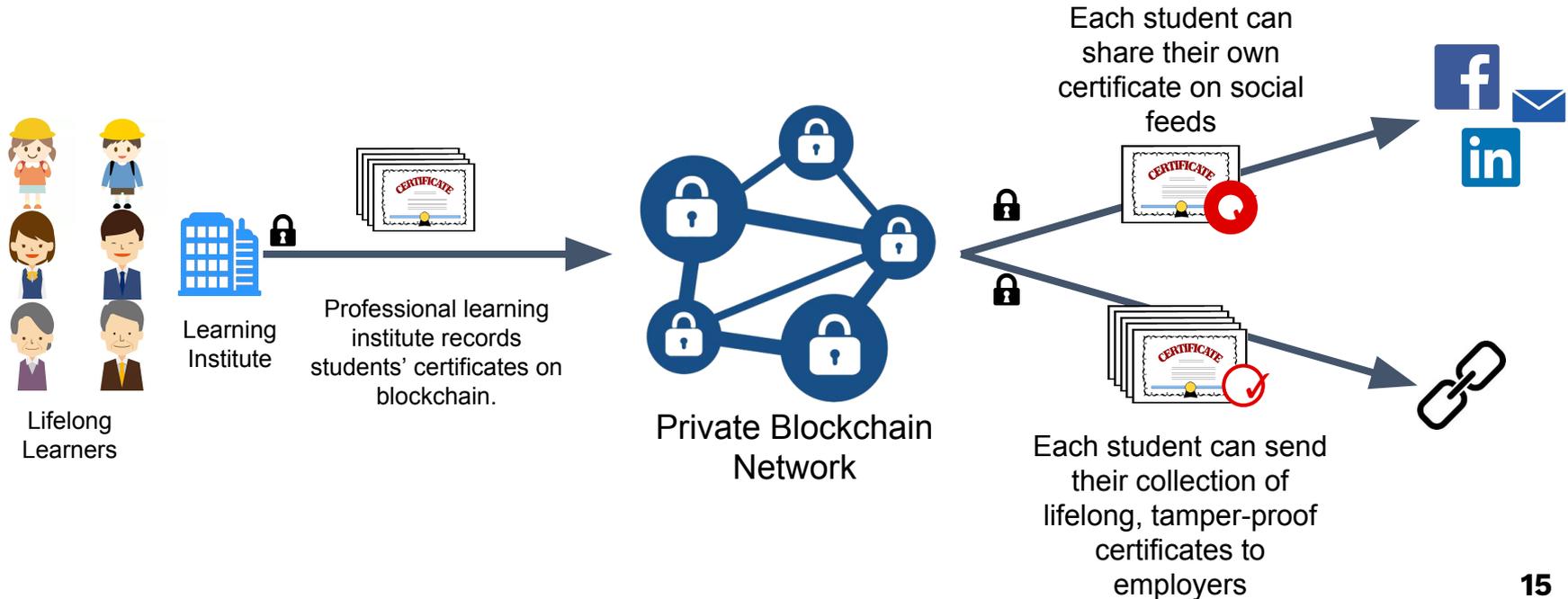
Application Architecture

Metadata / Backup
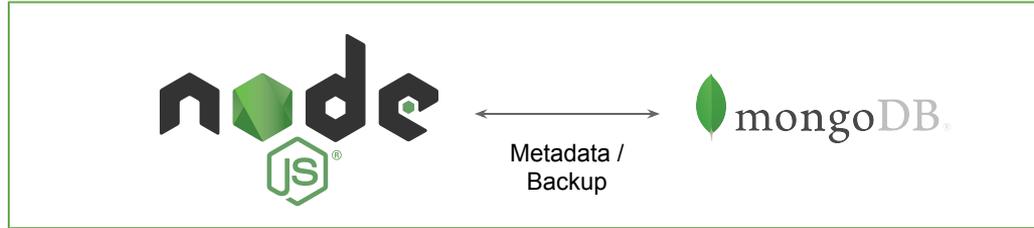
Web Application call a REST API generated by the Composer REST Server

Hyperledger Composer Components

CLI

REST Server

Web Playground

SDK

Use ID cards to connect to a distributed ledger.

Hyperledger Fabric 1.0

Benefits

Professional Learning Institutes

- Record certificates securely on blockchain
- Look trustworthy!

Students

- Have verifiable certificates
- Keep all records in one place for life

Employers

- Verify certificates of applicants and employees easily

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Why am I here?

If you are interested in partnering
to build a blockchain for education,
LET's TALK!

Thanks!

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