블록체인 2.0 | 라이스대 비지니스 블록체인 컨퍼런스 (3)

작성자 atomrigs (50.♡.129.♡) 17-04-28 04:51 조회 112회 댓글 0건

목록

이 글 시리즈의 1,2편 링크입니다.
http://www.chaintalk.io/archive/lecture/673
http://www.chaintalk.io/archive/lecture/684

IoT 형의 솔루션을 지향하는 Oaken Innovation 의 발표입니다. Hudson 은 이더리움 파운데이션에서도 보이는 얼굴이군요.

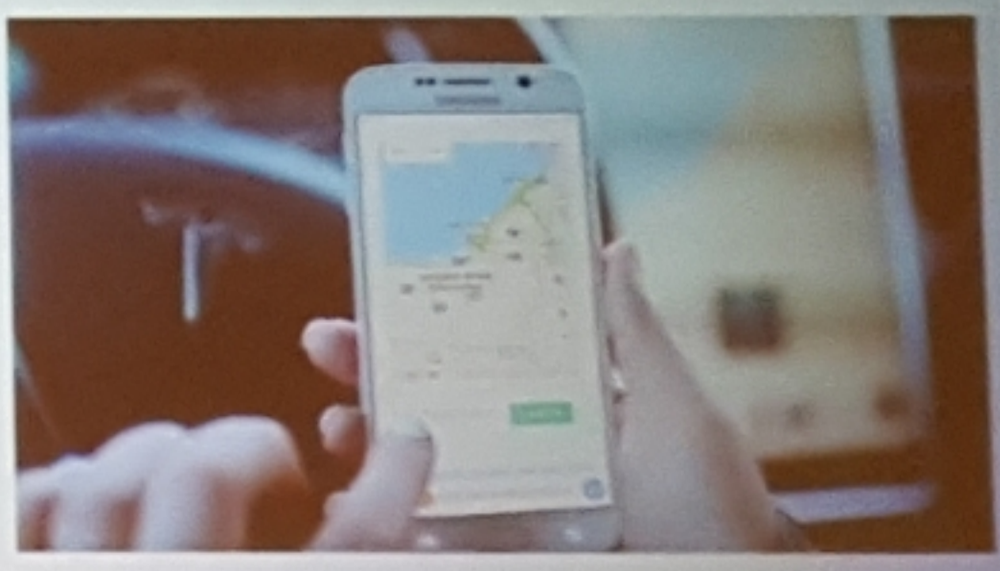
The Oaken Platform

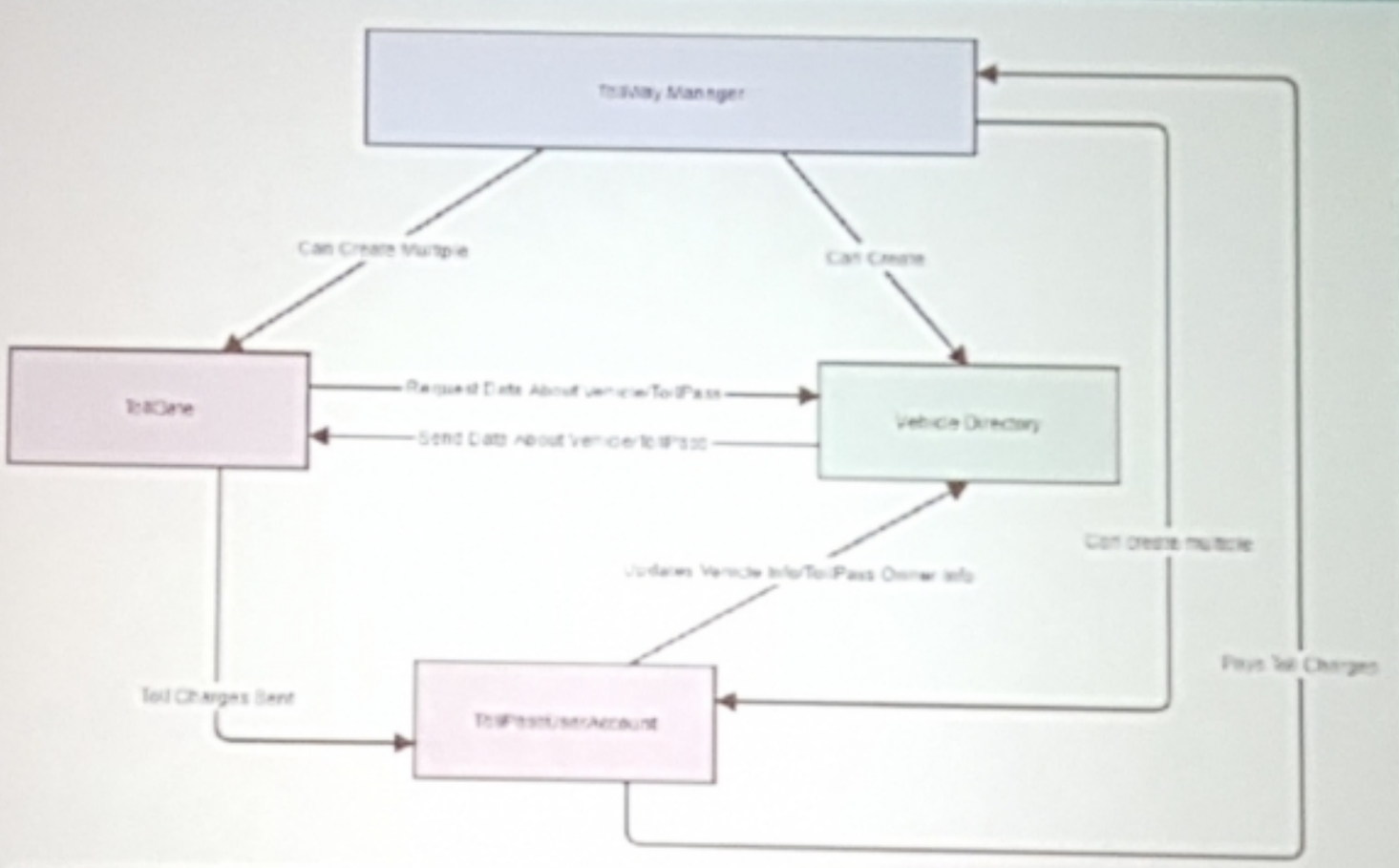
The Oaken platform is made of A.C.O.R.N.S (Autonomous Communication Over Redundant Nodes).

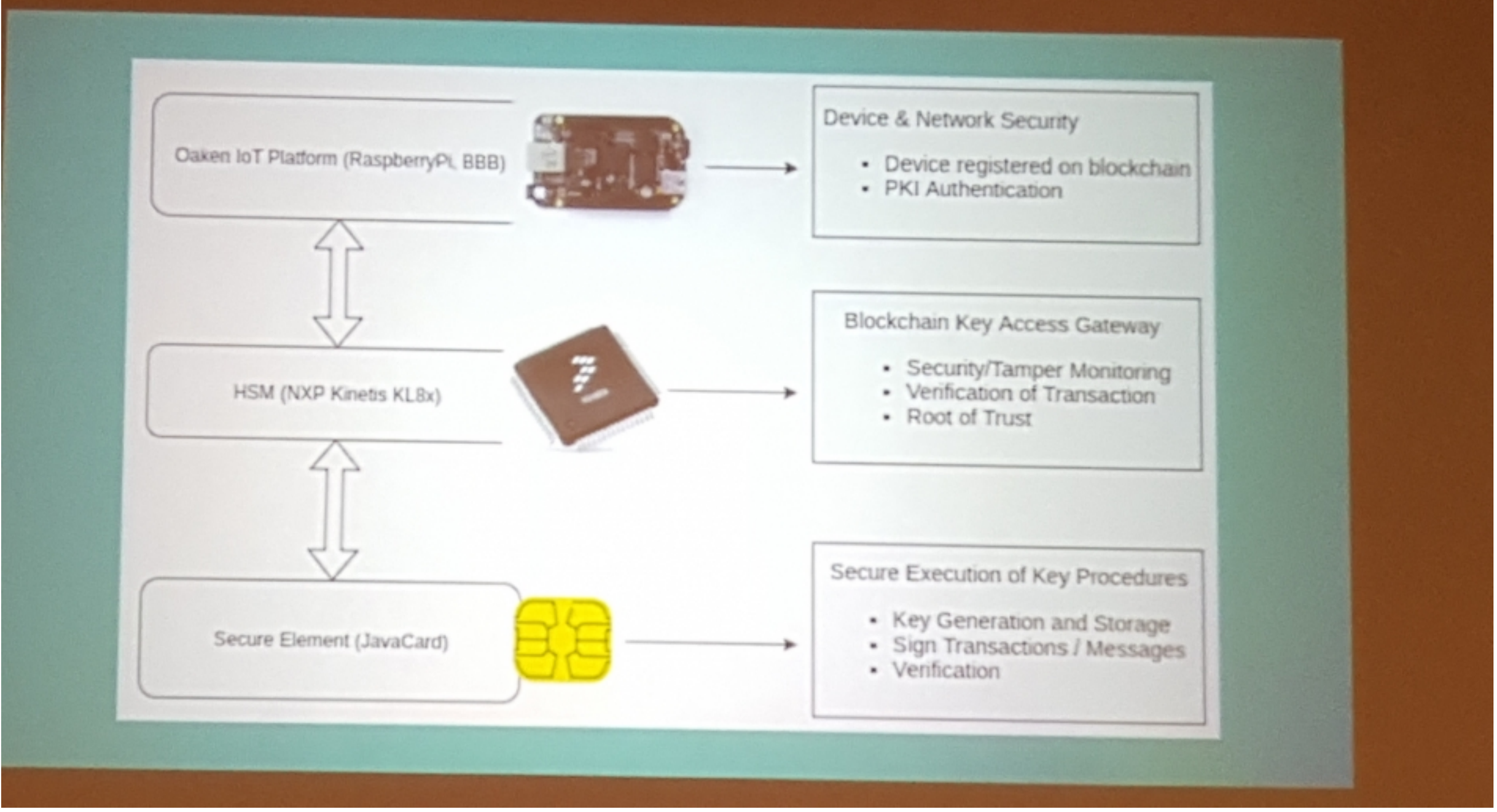
ACORNS provide a layer of security to both the hardware and software components of an IoT network.

Use Case: Tollroads

- Hacked a Tesla and simulated a tollgate to win the grand prize at the United Arab Emirates Virtual GovHack.
  - Created a blockchain identity for the Tesla and for the tollgate.
  - Smart contract triggered when the Tesla would pass through.
  - True machine-to-machine value transfer.



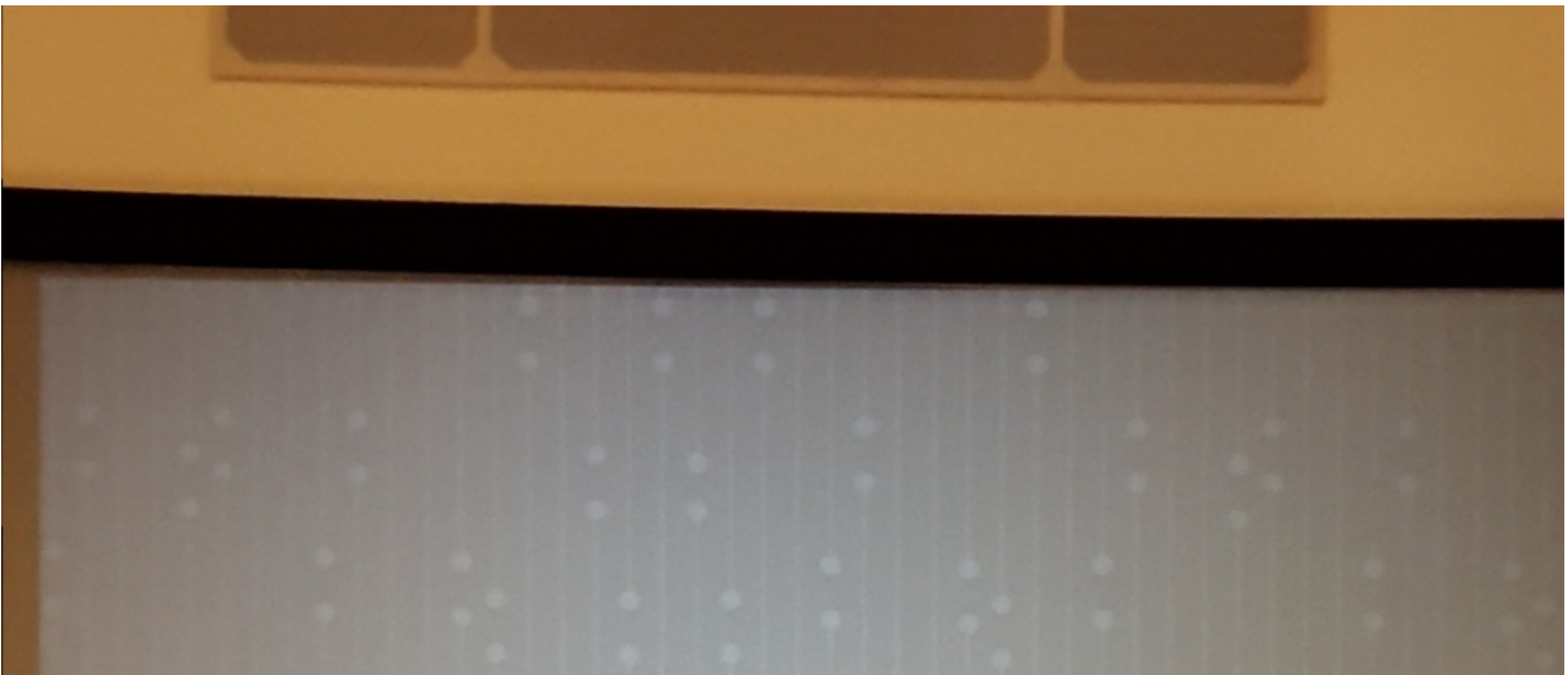




그 다음은 storej 의 CEO/CTO 인 Shawn Wilkinson 인데요, 이 친구 온 행사장을 뛰어다니면서 질문 받고 하는 아주 독특한 성격의 소유자네요.
시스템을 비트코인 베이스(카운트파티)에서 이더리움으로 옮기고 있는 중이고, 조만간 ICO 를 하겠다고 하더군요. 한국에 한번 오겠답니다. ㅋㅋ


STORJ.IO

다음 발표자는 BNY Mellon 의 Jared 인데요, 블럭체인 보안 관련 전문기업이네요.



Blockchain Security & Resiliency

Because Data Matters

Jared Harwayne-Gidansky

Deputy Global Head of Emerging Business & Technology

BNY MELLON

Security and Resiliency

Financial Services is Critical Infrastructure

Triggers

- Presidential Policy Directive 21 (PPD21) : Critical Infrastructure Security and Resiliency
- DHS & Treasury Financial Services Sector Specific Plan 2015
- FS-ISAC Sheltered Harbor

Security

- Reducing the risk to critical infrastructure by physical means or defense cyber measures to intrusions, attacks, or the effects of natural or manmade disasters.

Resiliency

- Ability to prepare for and adapt to changing conditions and withstand and recover rapidly from deliberate attacks, accidents, or naturally occurring threats or incidents.

Type of Threat Source

Threat Taxonomy

Adversarial	Accidental	Structural	Environmental
Individual • Outsider • Insider • Trusted Insider • Privileged Insider **Group** • Ad hoc • Established Organization • Competitor • Supplier • Partner • Customer • Nation-State	• User • Privileged User • Administrator	• IT Equipment • Storage • Processing • Communications • Display • Sensor • Controller • Environmental Controls • Temperature Controls • Power Supply • Software • Operating System • Networking • General Application • Specific Application	• Natural disaster • Man-made disaster • Fire • Flood/Tsunami • Windstorm/Tornado • Hurricane • Earthquake • Bombing • Overrun • Unusual Event • Infrastructure Failure/Outage • Telecommunication • Electrical Power

Security Goals

Security Goal	Definition	Components of an Information System					
		Information	People	Processes	Hardware	Software	Networks
Accountability	An ability of a system to hold users responsible for their actions (e.g. misuse of information)		X				
Auditability	An ability of a system to conduct persistent, non-by-passable monitoring of all actions performed by humans or machines within the system			X			
Authenticity	An ability of a system to verify identity and establish trust in a third party and in information it provides	X	X	X	X	X	X
Availability	A system should ensure that all system's components are available and operational when they are required by authorized users	X	X	X	X	X	X
Confidentiality	A system should ensure that only authorized users access information	X					
Integrity	A system should ensure completeness, accuracy and absence of unauthorized modifications in all its components	X	X	X	X	X	X
Non-repudiation	An ability of a system to prove (with legal validity) occurrence/non-occurrence of an event or participation/non-participation of a party in an event	X		X			
Privacy	A system should obey privacy legislation and it should enable individuals to control, where feasible, their personal information (user-involvement)	X	X				

A Reference Model of Information Assurance & Security by Yulia Cherdantseva and Jeremy Hilton

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Resilience Principles for Engineered Systems

Absorption	Physical redundancy	Functional redundancy	Layered defense	Human in the loop
Reduce complexity	Re-organization	Repairability	Localized capacity	Loose coupling
Drift correction	Neutral state	Inter-node interaction	Reduce hidden interactions	

Key Value Drivers for Blockchain

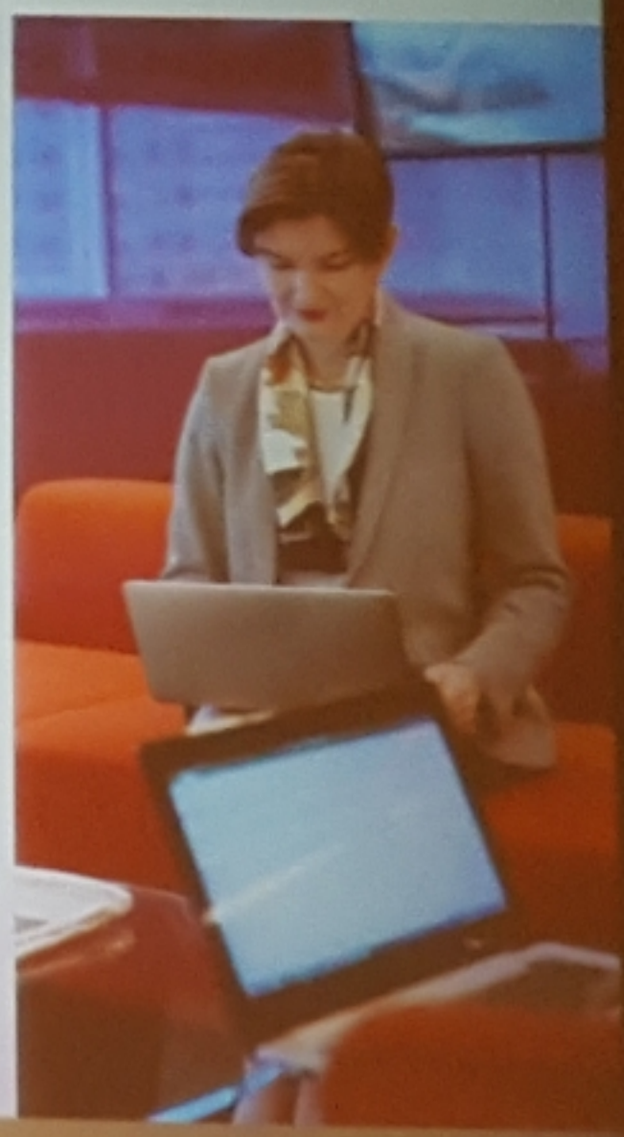
Potential to drive simplicity and efficiency through new financial services infrastructure and processes

Value Drivers

1. **Operational simplification**
   Blockchain reduces / eliminates manual efforts required to perform reconciliation and resolve disputes
2. **Regulatory efficiency improvement**
   Blockchain enables real-time monitoring of financial activity between regulators and regulated entities
3. **Counterparty risk reduction**
   Blockchain challenges the need to trust counterparties to fulfil obligations as agreements are codified and executed in a shared, immutable environment
4. **Clearing and settlement time reduction**
   Blockchain disintermediates third parties that support transaction verification / validation and accelerates settlement
5. **Liquidity and capital improvement**
   Blockchain reduces locked-in capital and provides transparency into sourcing liquidity for assets
6. **Fraud minimization**
   Blockchain enables asset provenance and full transaction history to be established within a single source of truth
7. **Audit and assurance efficiency plus quality improvement**
   Compliance by code assured through formal proofs and automatically audited for entire population set at reduced cost
8. **Cybersecurity and resiliency improvement**
   Highly distributed infrastructure with cryptographic consensus security removes single points of failure

Our Requirements

1. **"Version of Truth" (before the problem happened)** - If there is a system issue, what is the last known "version of truth" – Assets? Position Locator?
2. **Reconcile (Is there a problem?)** - BDS – 2 services, 28 systems. How do we ensure consistency across systems of dealer assets/transactions?
3. **Manual Recovery** – how does impacted dealers/transactions/assets/risk help us in doing manual recovery?
4. **Automated Recovery** (Not started) –
   A. Fedline Advantage – bulk-file download/upload
   B. Client connectivity – transactions download/upload (Distributed Ledger?)
   C. Step-in Clearance platform – simplistic in scope (Distributed Ledger?)
      a. Focus on Externals – Netting (reduce volumes and exposure)
      b. Focus on Internals – Netting?
5. **Real-time validation of Clearance (Using Distributed Ledger) – Work-in-progress**
6. **Market Viewer (using Distributed Ledger) – improve securities liquidity**
7. **Time-series analytics on intraday data**
8. **Amazon Cloud – dark-page for client connectivity in contingent scenarios**



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Sheltered Harbor

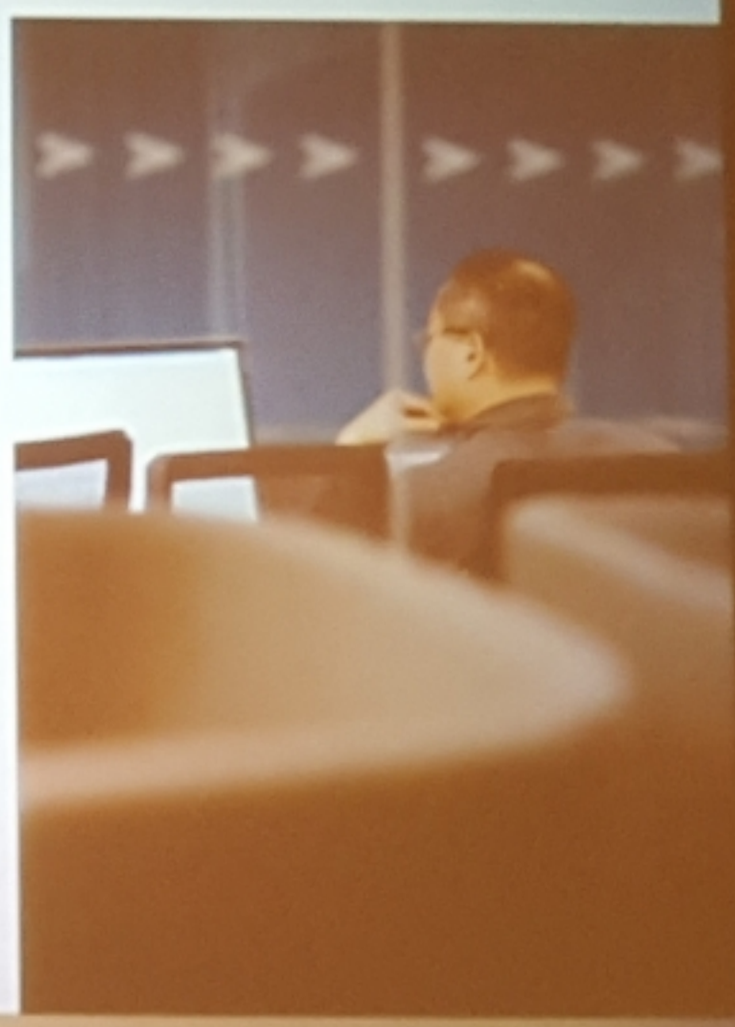
Proactive initiative by FS-ISAC to enhance resiliency

Goals

- Provide enhanced protections for financial institutions' customer accounts and data.
- An additional layer of protection on top of existing defenses that many financial firms utilize.

Requirements

- Securely store and rapidly reconstitute account information
- Whether through a service provider or another financial institution
- Data stored in a data vault is kept private by each institution, it is encrypted, and it is protected from change
- The model is a distributed one, with no central repository of information
- The secure repository process shall create a public record of the cryptographic hash and relevant material
- The publication of the material shall serve as an indication to all interested parties that the process completed successfully



14 BNY MELLON

다음 소개할 회사는 BlockApp 인데요, 발표자는 CEO인 Victor Wong 입니다. 너무나 열정적인 친구입니다.
컨센시스에서 인큐베이팅해서 내놓은 첫번째 기업이라는군요. 기업용 솔루션에서 매우 두각을 나타내고 있답니다.

BlockApps

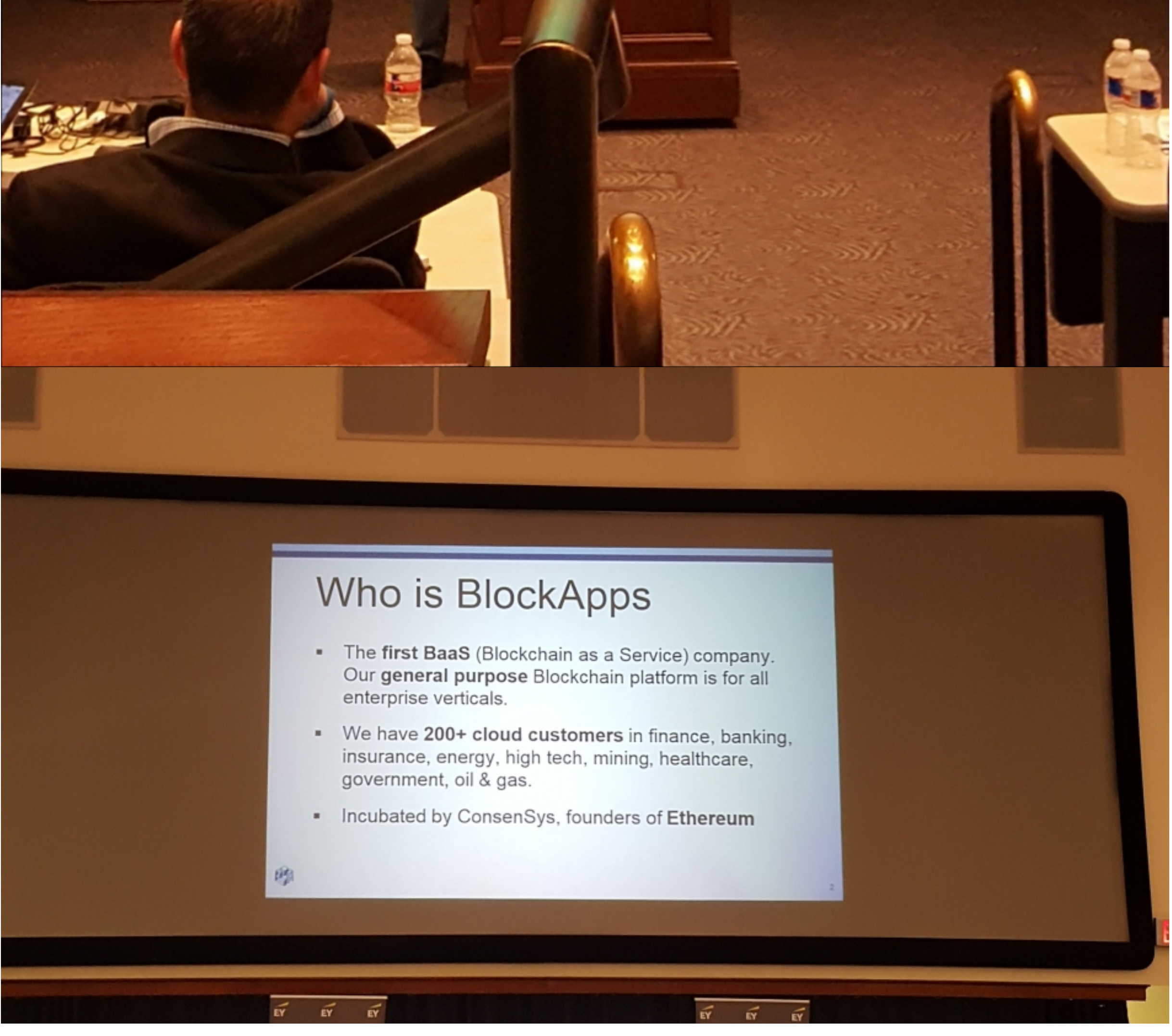
Bringing Blockchain to Production

April 2017

EY EY EY

EY EY EY

RICE


Who is BlockApps
The first BaaS (Blockchain as a Service) company. Our general purpose Blockchain platform is for all enterprise verticals.
We have 200+ cloud customers in finance, banking, insurance, energy, high tech, mining, healthcare, government, oil & gas.
Incubated by ConsenSys, founders of Ethereum
2
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Enterprise Blockchain Leadership

- 1st Blockchain-as-a-Service offering (**BaaS**)
- 1st **Microsoft** Certified blockchain solution
- 1st Non-financial production blockchain application for **Fortune 500** company
- 1st BaaS company to partner with **Red Hat**
- 1st BaaS company on the founding board of the **Enterprise Ethereum Alliance**
- 1st independent **Ethereum-compatible client**

Our Approach

- **No proprietary blockchains.** To this end, we are driving open standards around Enterprise Ethereum.
- We are **"best of breed"** blockchain platform that will be future proof for enterprises and governments worldwide.
- We understand that **enterprises and governments need ample support**. We have the best in minds in the market to support roll outs and work with premier service partners specialized in global deployments.

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Problem

Trust is NOT inherent in today's database applications

Expense of managing source of record and trust is high

Manual processes are required to verify transaction trust

Solution

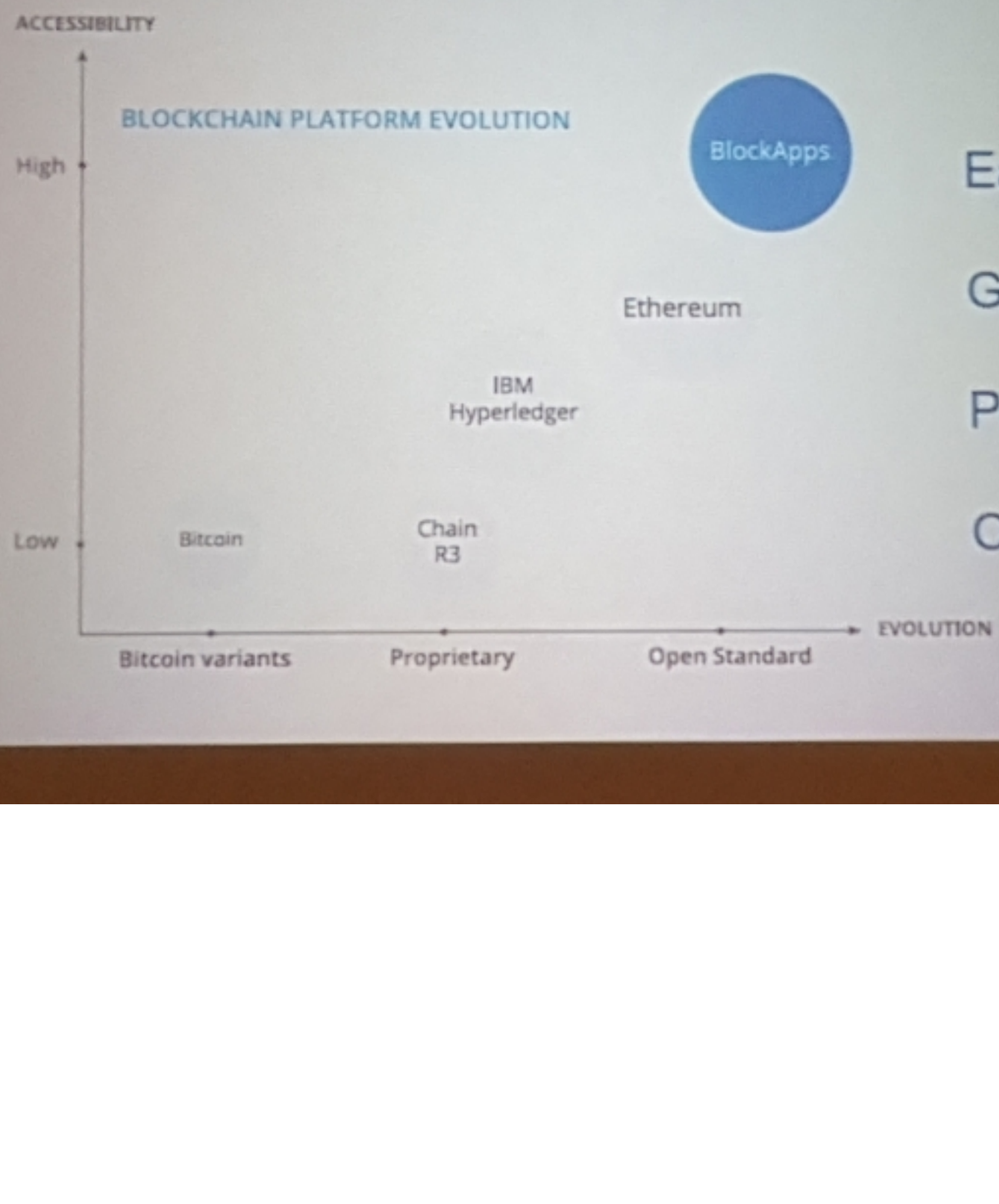
A **secure, multi-tenant, decentralized database Blockchain platform** that enterprises can use to:

Secure
transactions via an immutable record

Automate
current manual trust verification processes

Save
by unifying source or record and truth stack

Why BlockApps?



Proven Use Cases

bhpbilliton	民生保险 MINSHENG INSURANCE	fidor BANK	John Hancock
• World's largest mining company • Use case: Supply Chain Tracking	• Large China Insurance company • Use case: Loyalty	• German online bank • Use case: Customer Banking	• Life insurance and financial services giant • Use case: KYC / Customer Onboarding

Moving into Production

June 15th, 2016

First Blockchain Production Environment client
BHP Billiton - Fortune 500 Oil & Gas

- Deployed within BlockApps on Azure
- Client also exited for "blockchain" Microsoft Event

Sources : Global Futurist, Bloomberg, ConsenSys

"The system has been developed in conjunction with blockchain startups **BlockApps (on Azure)** and ConsenSys, and will allow both the company itself and the vendors they use throughout the supply chain, to track live data of material movements."

Savings

25m hours a year

Hours of Dubai economic productivity saved annually by moving government records to the blockchain

$12-20b a year

Amount blockchain technologies could save banks by reducing infrastructural costs

BlockApps Platform

Use Cases / Verticals	Financial	Manufacturing	Insurance	Travel	IoT
	Marketplace	Contracts	Energy	Government	
Enterprise Applications	ERP	Supply Chain Management	Workflow Management	Enterprise Performance Management	
Blockchain Application Platform	BlockApps STRATO Blockchain Platform				
Open Blockchain Standards	Public Ethereum	Enterprise Ethereum			
IaaS / PaaS	Microsoft Azure	redhat	OpenShift PaaS		

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BlockApps vs. Public Ethereum

	BlockApps	Public Ethereum (Geth)
Packaging / License	Support Contract, Software Updates, Apache 2 License	GPL License, Community Support
Manageability	REST API, Docker Containers for PaaS (Azure, OpenShift), Rich Reporting in BI/SQL Queries on Smart Contracts	RPC, Community Maintenance of PaaS integration, Reporting is highly manual
Performance	Scale Out Concurrent Users (R/W are separates)	R/W not separate, Compute costs go up hard to LB
Scalability	Micro Services Highly Flexible	Monolithic
Maintainability	Automated Docker Registry For Updates	Manual process
Security	Support multiple consensus algorithms, configurable, key management is isolated and efficient	Limited to 2 consensus algorithms, key management on node is costly and complex
Data Integrity	More paths to restore for Disaster Recovery, Hot Backup	Disaster recovery is a hack, not turn key or production ready, No Hot Backup
Extensibility	Java Script, C# (.NET), Mobile SDK	Java Script, C# Only

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Finding the "right" use case

- Do You Really Need a Blockchain?
- Greenfield
- Solves real business problem
- Driven by a single org, value to all

--- 4편에서 계속.....

추천 1

atomrigs 5,283TALK 2d19FDE5B4Cac4e1AfA54ee749C368C68c18316c

여보슈! 당신의 살림살이도 비참한 모양인데 지금 가는 곳이 어디시우? 쓸데없이 돌아다니지 말고 우리 적당으로 들어와 한 몫 보는게 어떻겠소? (역사 속의 야담 - 풍류열전)

댓글목록

등록된 댓글이 없습니다.

목록

연재 강좌

전체 | 나도 dApp 개발 | 블록체인 2.0 | 덕후들의 번역놀이 | 금마 마이닝 | 블록체인 메트릭스 | 로움의 암호화폐 | 까짓거 한번 C | 아침커피 컴과입문 | 기타

Total 112건 1 페이지

RSS

번호	제목	글쓴이	날짜	조회	추천

공지	블록체인 2.0	**라이스대 비지니스 블록체인 컨퍼런스 시리즈 목차 2**	atomrigs	04-28	208	4
공지	공지	**연재 강좌 이용 안내 2**	CHAINTALK	03-18	185	2
110	블록체인 2.0	라이스대 비지니스와 블럭체인 컨퍼런스 비디오 모음 **1**	atomrigs	05-03	111	0
109	블록체인 2.0	라이스대 비지니스 블록체인 컨퍼런스 (6) **1**	atomrigs	04-28	103	0
108	블록체인 2.0	라이스대 비지니스 블록체인 컨퍼런스 (5) **1**	atomrigs	04-28	96	1
107	블록체인 2.0	라이스대 비지니스 블록체인 컨퍼런스 (4)	atomrigs	04-28	84	1
열람중	블록체인 2.0	라이스대 비지니스 블록체인 컨퍼런스 (3)	atomrigs	04-28	113	1
105	블록체인 2.0	라이스대 비지니스 블록체인 컨퍼런스 (2)	atomrigs	04-28	203	0
104	블록체인 2.0	라이스대 비지니스 블록체인 컨퍼런스 (1) **10**	atomrigs	04-27	574	10
103	덕후들의 번역놀이	블록체인덕후들의 프린스턴 블록체인교재 번역놀이 : 1장 (28P 끝 ~ 30P) **1**	진리	04-18	368	1
102	금마 마이닝	바이오스타 TB250-BTC 보드의 특성 **4**	금마	04-07	439	3
101	덕후들의 번역놀이	블록체인덕후들의 프린스턴 블록체인교재 번역놀이 : 1장 (18P-21P) - 완료	하늘코인	04-02	523	1
100	덕후들의 번역놀이	프린스턴 블록체인 교재 번역 p31-p32	Culap	04-01	495	1
99	로움의 암호화폐	[특허] 제가 출원한 암호화폐 송금 관련 **6**	loum	04-01	620	0
98	로움의 암호화폐	다중 계정 등에 의한 시빌 문제 **1**	loum	03-29	359	2
97	로움의 암호화폐	합의 알고리즘에 대한 쉬운 설명 **2**	loum	03-29	470	0
96	로움의 암호화폐	Mastering Bitcoin 책 소개 **4**	loum	03-29	425	0
95	로움의 암호화폐	이더리움 엘로페이퍼를 잠깐 보고 든 생각....	loum	03-29	375	0
94	로움의 암호화폐	pos의 포크 문제에 대한 개인적 의견 및 해결방안	loum	03-29	369	0
93	나도 dApp 개발	나도 dApp 개발해보자 (6) - TestRPC 활용 **21**	atomrigs	03-29	955	8