

Hydro Raindrop
BLOCKCHAIN의 공용 인증

일월 2018

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추상

HYDRO: - Greek ὑδρο- (*h udro-*), ... ὑδωρ (*hÁidōr*, "water")

Hydro Blockchain
, ID ,

..

API Hydro public BLOCKCHAIN

"RAINDROP" ,

Hydro raindrop Hydrogen API Platform .
, ,

Hydro raindrop Hydro Raindrop REST API
..

Blockchain 과 Ethereum

Hydro Ethereum .
BLOCKCHAIN Ethereum ..

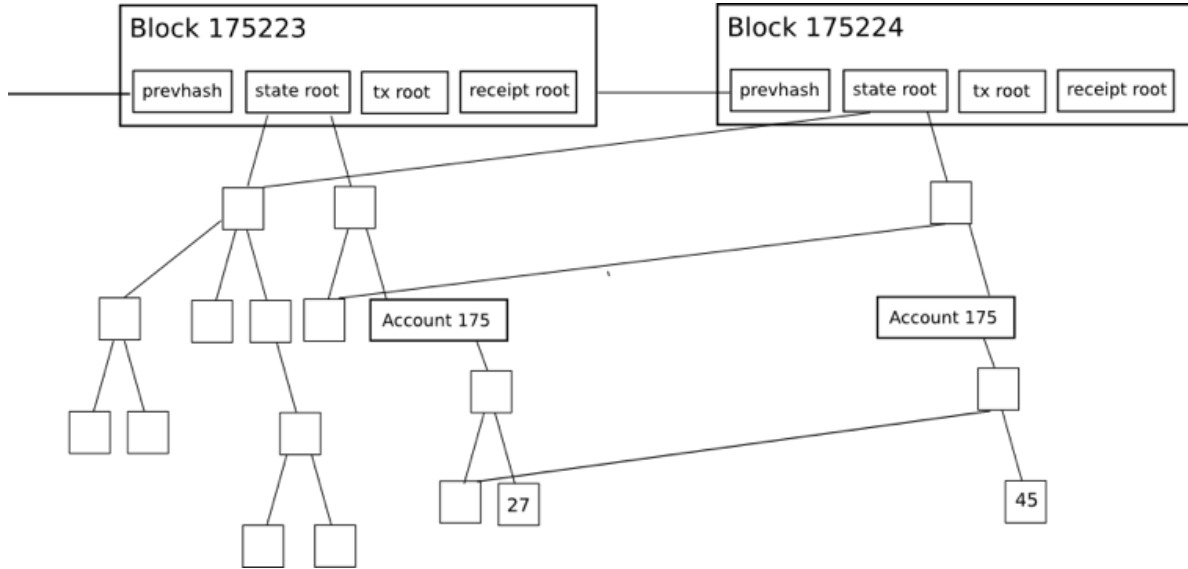
Ethereum

Snapchat Apple iOS Swift
Blockchain Ethereum . Snap
Inc. iOS , .

. BLOCKCHAIN , '
. Hydro '
Blockchain ..

Merkle Trees

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Ethereum , 3 Merkle Tree
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Source: [Merkling in Ethereum](#); Vitalik Buterin, Ethereum Founder

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Ethereum BLOCKCHAIN

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Ethereum • Hydro

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Ethereum

Ethereum (EVM) Ethereum • EVM DoS

(Denial of Service)

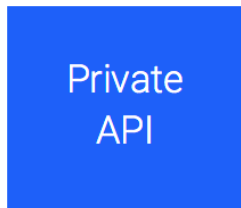
. EVM

(g)

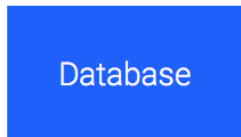
공인 원장

Hydrogen API

. HYDRO Hydrogen



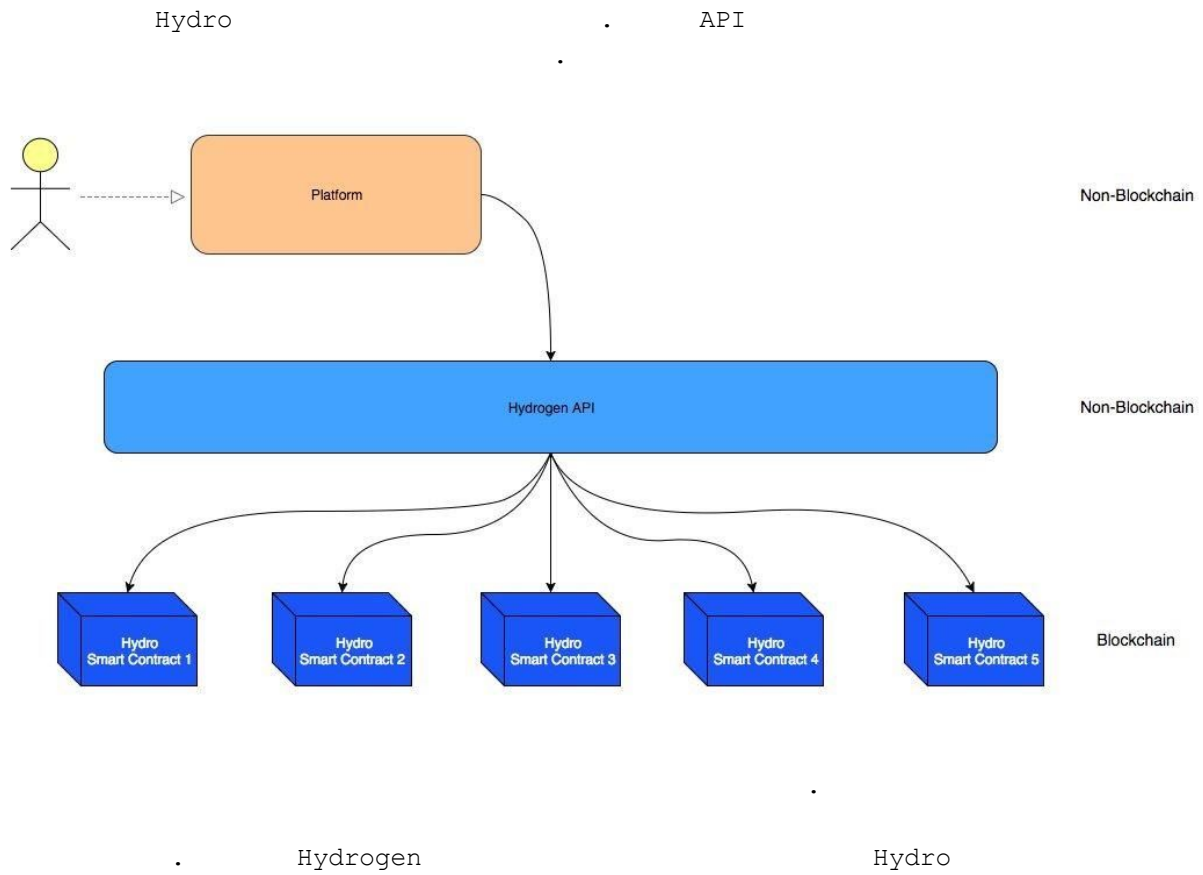
Hydro allows private organizations
to harness the power of a public blockchain.



blockchain

Hydro

Hydro



Raindrop

Hydro

"Raindrop"

OAuth 2.0

. Hydro

Raindrop

ID

Trend Micro

(PII)

\$ 1

\$ 10

\$ 200

➤ Javelin Strategy & Research - 2017
2016

Identity Fraud Study
(PII)

1540
160

➤ 2017 4
11 PII

2016

➤ 2016
4,149

Quickview 2016
42

➤ IT
Report - Financial Services Edition
78 %

2017 Thales Data Threat
49 %

AI, IoT

Equifax Breach

2017 7 29 , 118
 1 4,300 PII Equifax . 209,000 .

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Equifax . Struts Apache Software
 Foundation Java
 . C VE-2017-9805 Struts REST XStream
 XML Apache Struts .

Apache .. Equifax 2

Apache Struts REST Plugin XStream , XML

XStreamHandler toObject () . XStream
 deserialization .

REST ? REST API Java
 1 4,300
 ?

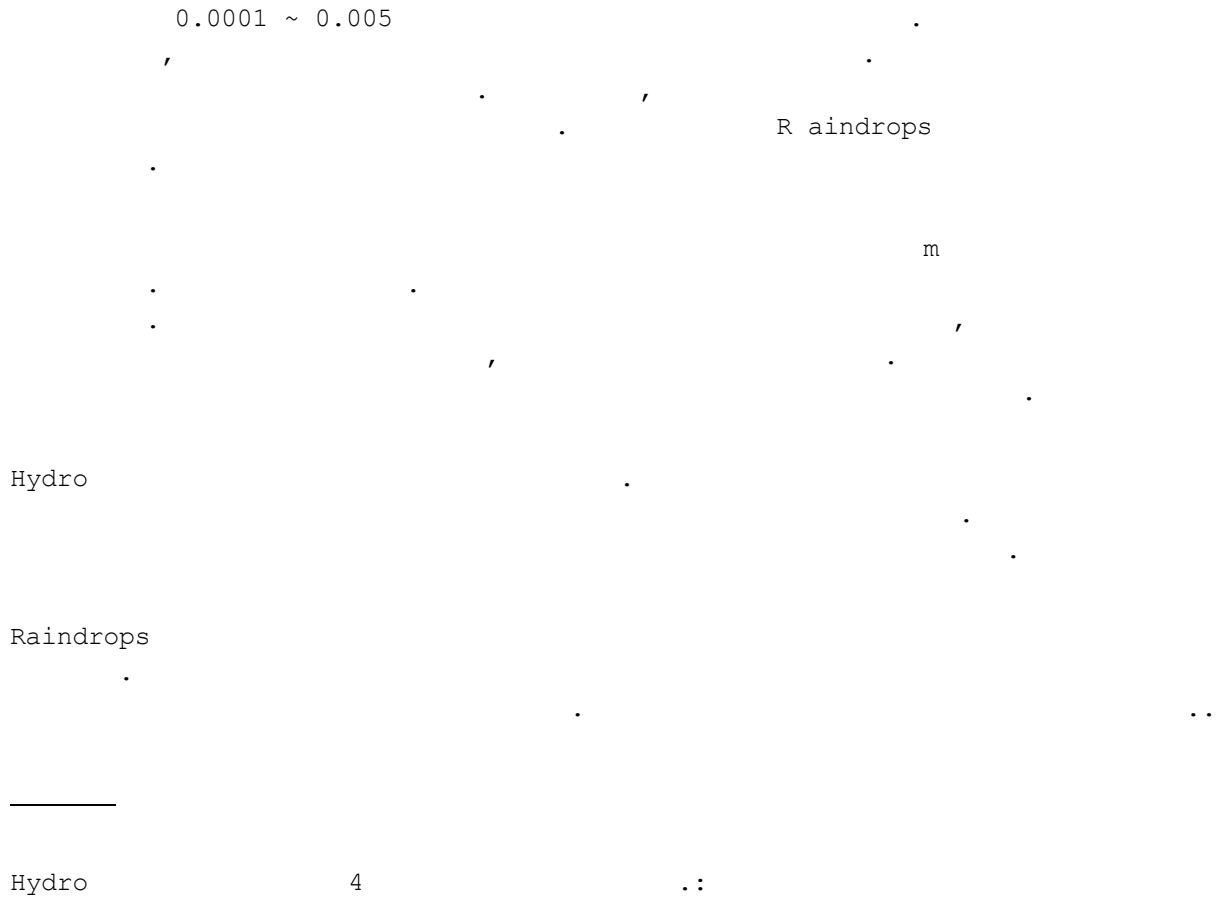
Blockchain

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Ethereum .

Hydro . ,
 API

Hydro Raindrop



1. - . Hydrogen
Hydrogen API .
 2. - .
Hydrogen API .
 3. (Hydro) -
 4. (Blockchain) - HYDRO
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- ..
- ..:

1. - .
 2. - . Hydro
 3. ID - .
 4. - HYDRO.
 5. - .
- 3 ..:

- 1.
- 2.
- 3.

Hydro () (:

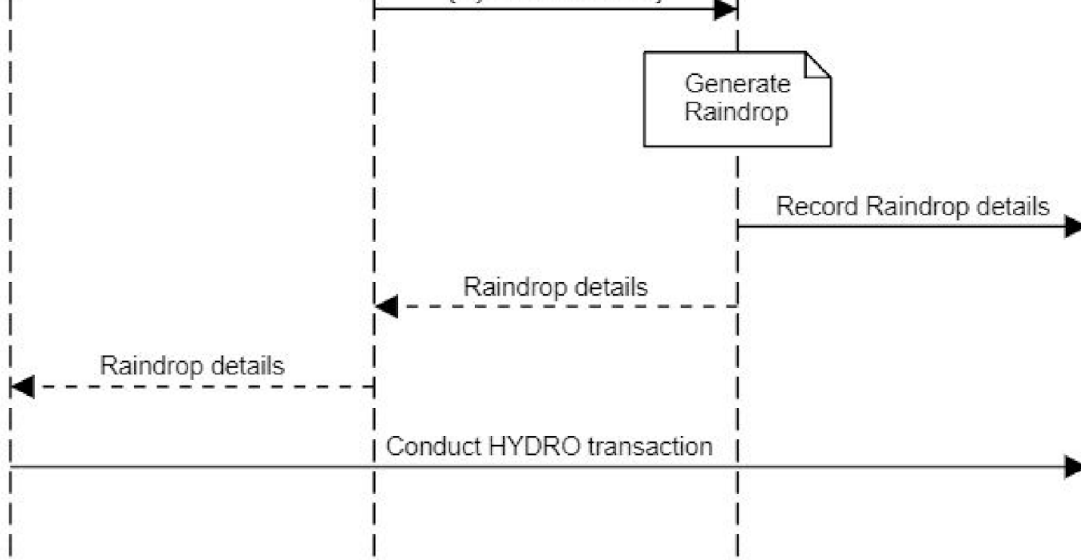
) Hydro .

(:)

Hydro .

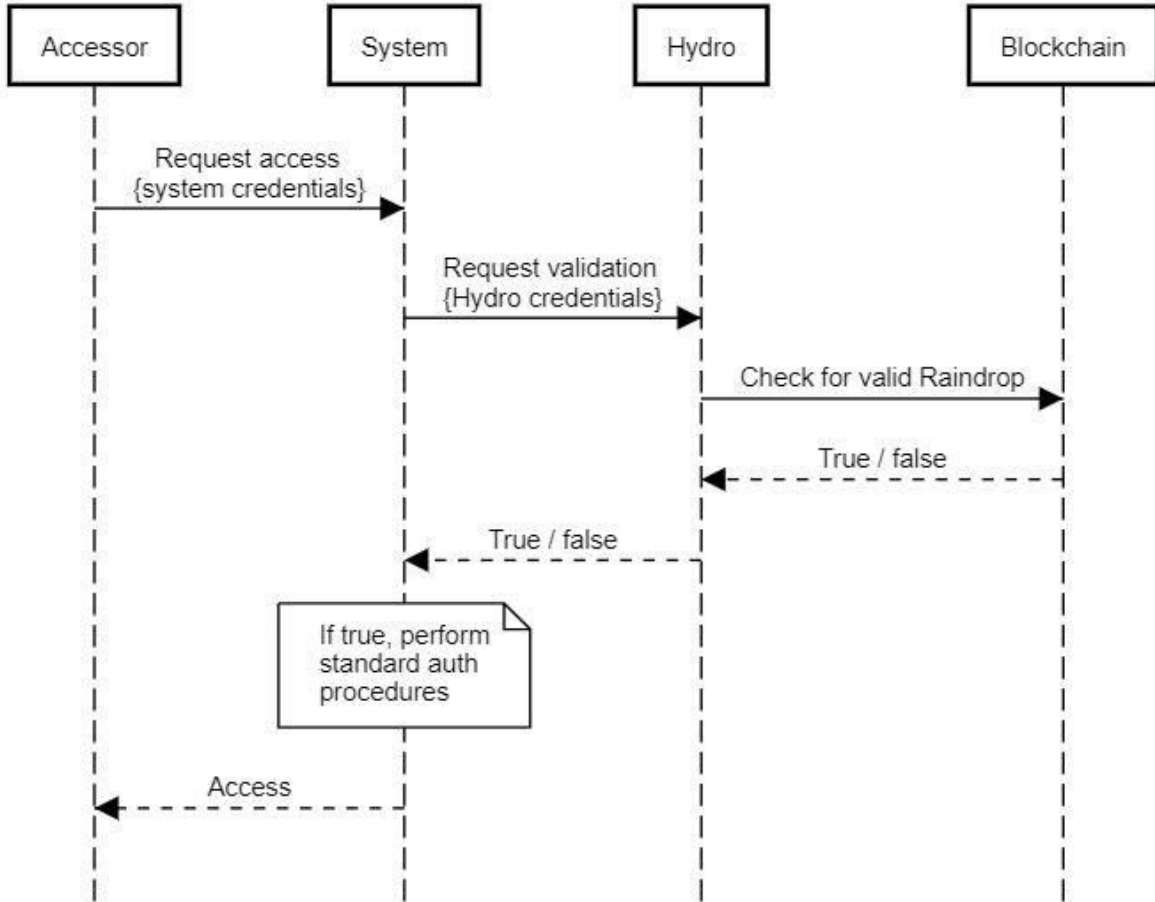
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(Accessor) Raindrop Hydro
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Authentication with Hydro: Validation



Hydro

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Vector 1 -

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o Hydro

o Hydro

Vector 2 -

1

Raindrop

Hydro

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    Hydro
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Hydrogen API
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Hydrogen API
    . API,
    Hydro
    REST API
    GitHub
    ..

- raindrop OAuth 2.0

    . API,
    10
    , Google Google
Authenticator
    .
    , Hydrogen API
    Hydro
    ..

1. API IP
2.
3. Hydrogen API HTTPS
4.
5. OAuth 2.0 . OAuth (Open Authorization)
    " " API "
5. Hydrogen
    API
6. 24 ,
    API
    ..

```

Hydro

Wallet

. Hydrogen

Hydro

. API

API

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위협

Blackberry . 1995 YouTube Instagram
Ethereum
Vitalik Buterin Joseph Poon Ethereum Plasma : Scalable
Autonomous Smart Contracts Ethereum .:

Plasma는 스마트 계약의 인센티브 및 강제 실행을 위해 제안된 프레임 워크로, 초당 상당량의 상태 업데이트 (잠재적으로 수십 억)로 확장 가능하여 블록 체인이 전 세계적으로 상당한 양의 분산된 금융 응용 프로그램을 나타낼 수 있게 합니다. 이러한 현명한 계약은 네트워크 거래 수수료를 통해 자발적으로 계속 운영되도록 유도되며, 궁극적으로 트랜잭션 상태 전환을 시행하기 위해 기본 블록 체인 (예 : Ethereum)에 의존합니다.

Raiden Network
(off-chain) Ethereum

결론

- API
1. ..
 2. ..
 3. Hydrogen API Hydro Raindrop ..

Hydro

Sources:

Ethereum; [Merkling in Ethereum](#)

Trend Micro; [What Do Hackers Do With Your Stolen Identity?](#)

Javelin Strategy & Research; [The 2017 Identity Fraud Study](#)

Symantec; [Internet Security Threat Report](#)

Risk Based Security; [2016 Data Breach Trends - Year in Review](#)

Thales; [2017 Thales Data Threat Report - Financial Services Edition](#)

Apache.org; [Apache Struts 2 Documentation - S2-052](#)

Joseph Poon and Vitalik Buterin; [Plasma: Scalable Autonomous Smart Contracts](#)