

ICO Review: Blockcloud (BLOC)

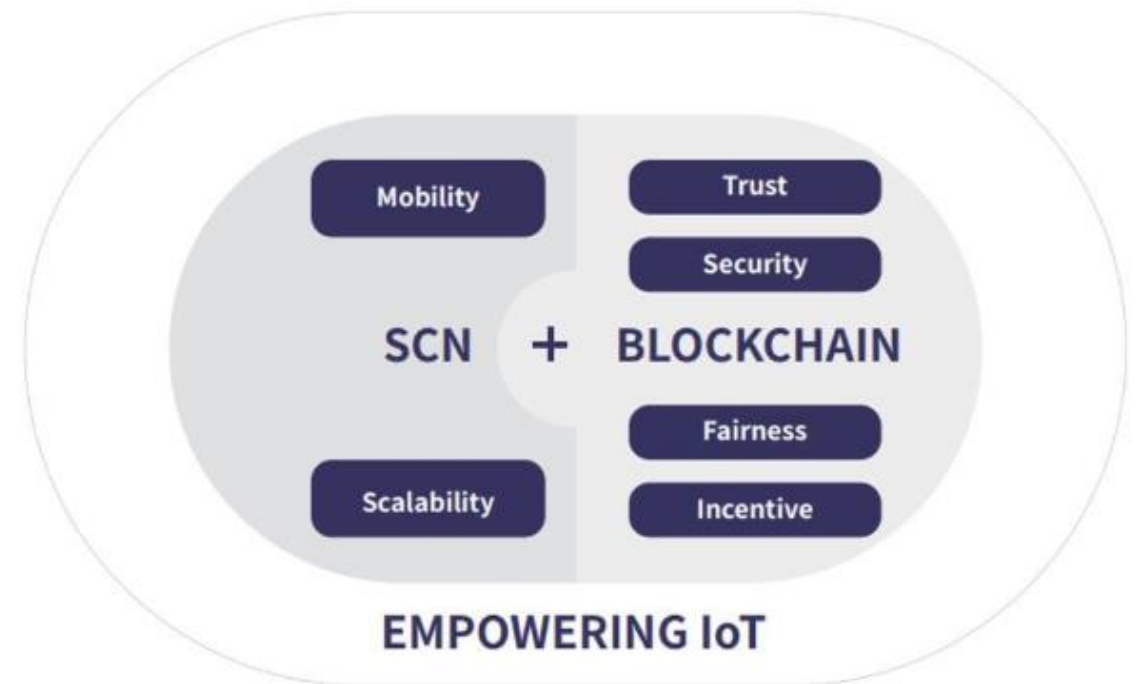
Blockchain-Based Service-Centric Network Stack

July 21, 2018



What is Blockcloud?

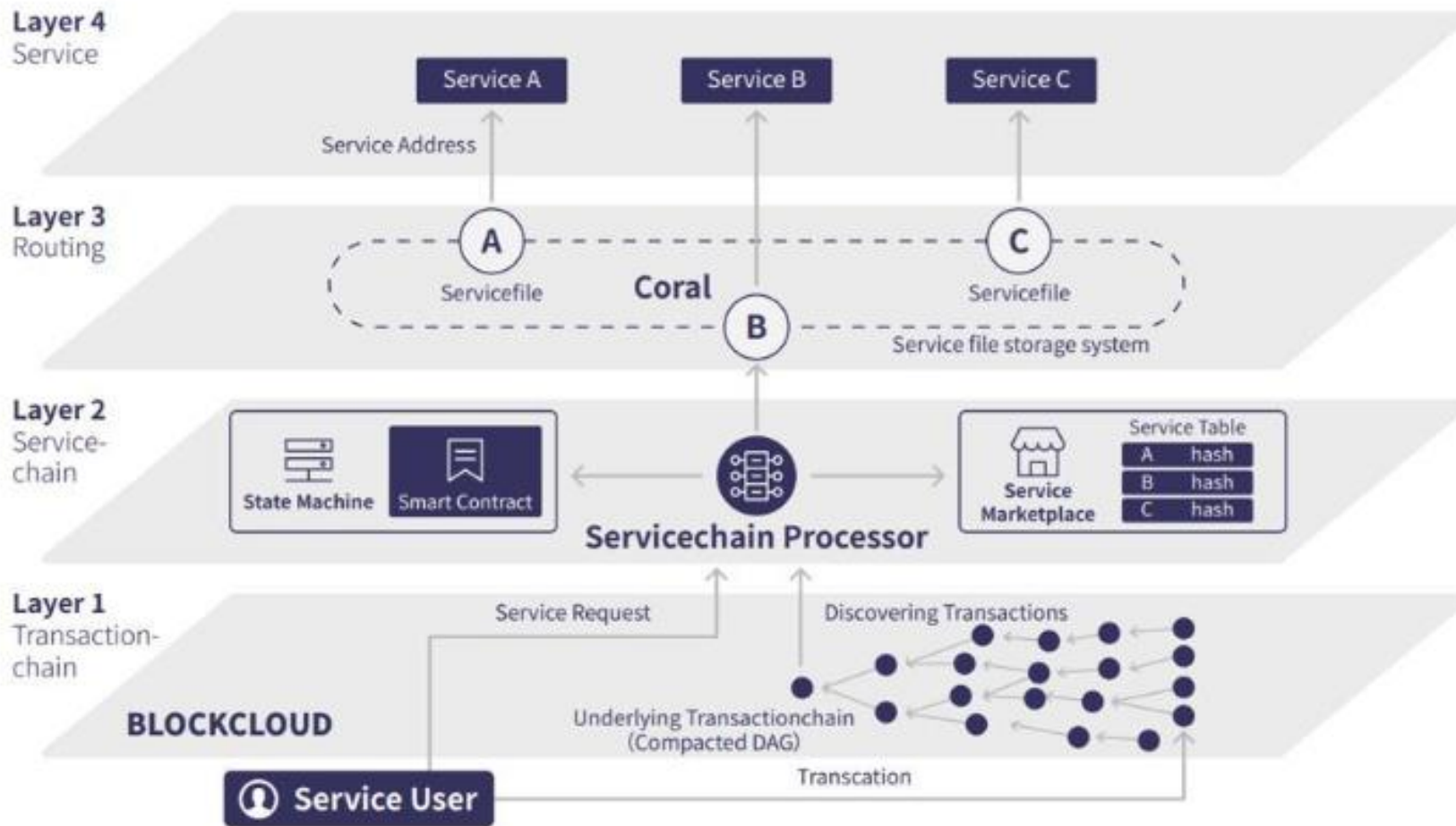
- Developing an advanced Transmission Control Protocol/Internet Protocol (TCP/IP) that will be blockchain-based and service-centric.
- Their proposed solution involves Service-Centric Networking (SCN), a new type of networking architecture.
- Blockcloud will constantly connect network providers and demanders while resolving the issues of poor connectivity, scalability, and security that exists in today's Internet of Things (IoT) industry.



The Blockcloud architecture

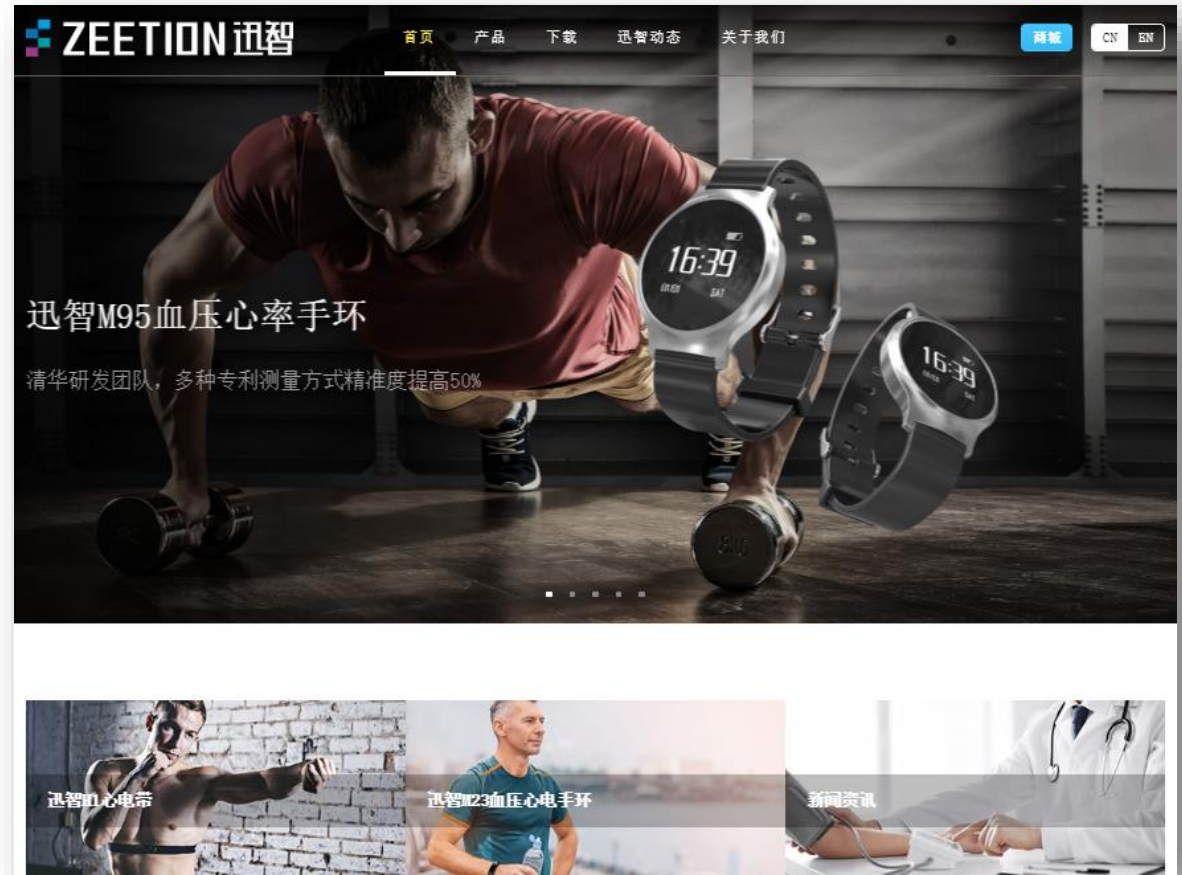
- **Transaction-chain Layer:** Stores the encoded transactions of the network as a global ledger.
- **Service-chain Layer:** Defines new operations without requiring changes to the underlying blockchain. This layer also contains the Blockcloud marketplace which allows users to bid for various services.
- **Routing Layer:** Responsible for the task of routing requests, such as discovering services. Because the Routing Layer is separated from the Service Layer (unlike typical web services), Blockcloud allows multiple service providers to exist concurrently.
- **Service Layer:** Serves the actual services of the network. The network will utilize Proof-of-Service (POS) to ensure service reliability, with the help of the network's verifiers.

The Blockcloud architecture (continued)



Shenzhen Oudmon Technology

- The parent company of BlockCloud, Shenzhen Oudmon Technology, is a smart home/smart wear company that serves millions of users in China and has over 100 partners, including Ping An Group, China Mobile and Tsinghua University.
- Oudmon has been in the IoT business for the past six years; the company has submitted applications for more than 80 patents and connected over 8 million devices.



Development roadmap

Q3 2018

Independent node based on PoS development completed

Developer community established

Partner selection completed

Global roadshow and ICO



Q4 2018

Minimum testnet for CoDAG, PoS and double auction mechanism development completed

Exchange listing

Algorithm & code quality optimization



Q1 2019

First commercial application scenario launched

Networking API & Mobile SDK development

First batch of application developer partners

Algorithm & code quality optimization



Q2 2019

Testnet launched

Participation of major IoT chip enterprises

Open-source API & Mobile SDK released

Algorithm & code quality optimization

Business development progress

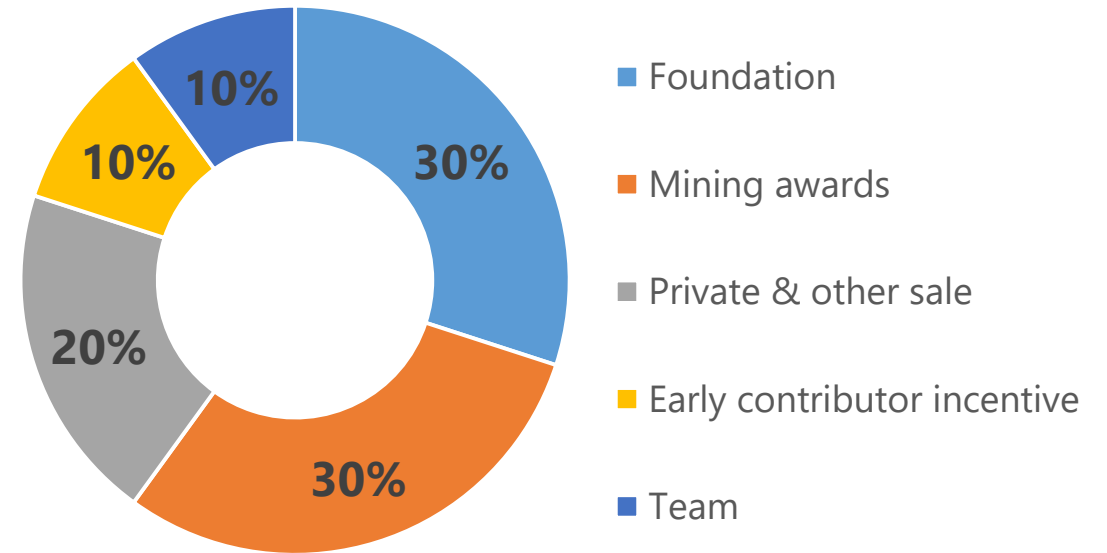
- The Blockcloud team/advisors have already started collaborating with various universities and companies and have reportedly secured over 30 partnerships via Oudmon.
- Those that may potentially use Blockcloud include the China Education and Research Network (CERNET), Tsinghua University, the Hong Kong Polytech University, Oudmon, WTC, and so on. Blockcloud is also in the process of building a strategic partnership with Wave.
- With help from the Chinese universities, Blockcloud will be promoted to the Internet Engineering Task Force (IETF). The IETF is an international group that develops and promotes standards for the Internet, such as the Internet protocol suite (TCP/IP). Fred Baker, a former Chairman of the IETF, is one of the advisors supporting Blockcloud.
- In regards to the collaboration with CERNET, the network will be supporting the project by testing, deploying and adopting Blockcloud.

BLOC token sale summary

ICO SUMMARY

- **Project name:** Blockcloud
- **Token symbol:** BLOC
- **Website:** <https://www.block-cloud.io>
- **Hard cap:** \$15M
- **Conversion rate:** 1 BLOC = \$0.008
- **Max market cap at ICO (fully diluted basis)** US\$75M
- **Private sale / white list:** The private sale is over. Tokens from the private sale are subject to a lock up period: 20% of the tokens will be released before exchange listing. Two months after listing, 10% of the tokens will be released per month. Whitelist details TBA.
- **ERC20 token:** Yes (the tokens will be migrated to the mainnet after it is launched)
- **Timeline:** The whitelist and KYC registration is tentatively scheduled for launch in August 2018)
- **Bonus structure / countries excluded / token distribution date:** TBA

TOKEN DISTRIBUTION



Use of BLOC tokens

- There will be four main participants in the network who will use BLOC tokens.
 - **Service providers** publish services to the marketplace and are rewarded with BLOC tokens based on their level of contribution.
 - **Service users** subscribe to services from the marketplace and will pay BLOC tokens to consume various IoT services.
 - **Service miners** maintain the ledger and protect the network from attacks by utilizing a Compacted Directed Acyclic Graph (CoDAG) ledger framework to achieve consensus. The miner that generates a stable block will be rewarded with BLOC tokens. Mining rewards will be released at an annual rate of 5% over 6 years.
 - **Verifiers** ensure the quality of services provided and help the system decide whether to reward or penalize a service provider. Verifiers are rewarded with BLOC tokens for verifying services.

Use of BLOC tokens (continued)

- Blockcloud will leverage various mechanisms such as Proof-of-Service (POS) to verify services and Truthful Continuous Double Auction (TCDA) to fairly distribute services.
- With this model, buyers could gradually pay tokens to the service provider for verified services provided and avoid the risk of losing money if the seller leaves the network before the agreed quantity of service has been consumed.
- BLOC tokens should appreciate in value as more participants join and use the network which is in turn driven by factors such as ease of use, pricing, mobility, security, etc.

THE TEAM

Team, advisors and investors



Zhongxing Ming

CEO

Assistant Professor at Tsinghua University. Previously the CTO of Shenzhen Oudmon Technology Co. (a consumer electronics company) and a Visiting Research Collaborator to Princeton University. He obtained his Ph.D. in Computer Systems Networking and Telecommunications from Tsinghua University in 2014.



Shu Yang

Chairman / SCN Lab Principal

Currently the Chairman and Service-Centric Networking Lab Principal of Blockcloud and an Associate Professor at Shenzhen University. He obtained his Ph.D. in Computer Architecture from Tsinghua University.



Dai Pan

Co-founder / COO

Co-founder and currently the COO of Blockcloud. Previously the COO of Shenzhen Oudmon Technology Co. He obtained his Master's degree in Computer Science from Peking University in 2013.

The opportunities

- SCN on blockchain can make blockchain more user-friendly and has a lot of potential.
- Team has strong background from technical perspective (core team has a lot of academic background and many of their advisors are professors) and in business development (i.e. already built various partnerships, they created that smart home/smart wear company).
- The collaboration with the various universities and CERNET could result in fast adoption / good traction.
- IoT is a rapidly growing industry. According to the team, “the number of IoT devices increased 31% year on year to 8.4 billion in 2017 and it is estimated that this number will grow to 30 billion by 2020”. They also cited: “Growth Enabler, a data intelligence firm specialized in disruptive technologies and digital innovations, predicts that the global IoT market will grow from \$157B in 2017 to \$457B by 2020.”

OUR THOUGHTS

Our concerns

- No MVP yet and actual testnet will not be launched until Q2 2019. Mainnet will not be until Q2 2020.
- Only 20% of total tokens are sold in the ICO, which is on the low side.

For flipping: **Positive.**

- The project has a low hard cap and high market awareness. The idea and team are solid. Presale participants have a long lock-up period, which makes the initial circulating supply fairly low.
- Multiple exchanges have also invested in the project, so we the tokens should not have trouble listing on decent exchanges. Therefore, we believe there should have plenty of unmet demand after the tokens are listed.

Our views (continued)

For long-term holding: **Positive.**

- With the strong technical team and advisory board, we believe the team has a good chance of pulling off this ambitious and highly technical project.
- The potential for SCN and the IoT industry (which no projects are working on this unique combination from our knowledge) could be substantial.
- We note that the mainnet is not scheduled to launch until Q2 2020, which is far away. However, on balance, we believe that the pros outweigh the cons and like the long-term prospects of the project.

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