MXC Foundation: what blockchain and IoT technologies contribute to smart cities?

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As an early investor, Fenbushi Capital was intrigued with the progress of MXC Foundation and how blockchain interacted with IoT technology to reshape the relevant industry. Earlier this year, we did an interview with MXC Foundation's CEO Sheen, and here is the content of the interview.

Sue: Can you briefly introduce MXC Foundation's business and ongoing things?

Sheen: Since 2000, the IoT industry has been popular. In the beginning, both the IoT and the Internet were emerging. Later, the Internet rose, but the IoT remained dormant. This lead us to think: what's wrong with this industry?

If everything is connected, the first problem is how to quantify the value of data

, which is the most important asset of the IoT. We can build a decentralized data trading market by using blockchain distributed accounting technology. Based on this, we can transmit data to different blockchains through Polkadot Parachain, so that data can flow more easily on different blockchains to show its due value. That is, data not only stays in a database, computer or application, but also can also flow in different blockchains and clouds.

The second problem is the limited capacity of blockchains.

The original design of blockchains cannot satisfy the huge volume of business we need. To safely and smoothly transmit data to blockchains and realize real-time communication and payment (among other things), we can use Layer-2 capacity expansion technology, which is a supernode solution (so-called MXC protocol). Through sustainable off-chain capacity expansion technology, we can transfer hundreds of billion or trillion-level object data sets (such as garbage cans, street lamps, fire hydrants, COVID-19 vaccine, cows, etc.) to different blockchains.

The last problem is how to safely and efficiently collect data at a low cost

. To achieve this goal, we have built the world's largest open and free smart city network. We have our base station (i.e. mining machine room), which can transmit ultra long-distance signals for sensor data collection. A single mining machine can cover data on all kinds of things such as parcels, cattle and sheep, water, electricity and gas meters within 40 kilometers. Through these mining machines, data can be uploaded to the Layer-2 supernode and then transmitted to blockchains.At present, we have laid out a decentralized wireless network (LPWAN) covering over 160 countries around the world.

This network is different from WiFi. WiFi is only applicable to a range within one or two hundred meters (which is why you can't get it after you leave the office), while our network extends for 40 kilometers. In cities such as Shanghai and Hong Kong, only hundreds of mining machines are needed to achieve uniform coverage. In the future, the networking of electronic equipment will no longer be based on home or office, but the whole city, and the cost of Internet access will become very low.

In addition, the high data traffic fees paid to telecom operators will also seriously restrict the layout of the IoT. The more data is uploaded, the higher data traffic fees are paid to telecom operators. Therefore, in order to achieve comprehensive layout of the IoT, we cannot carry out data transmission through telecom operators. We can collect more data and transmit it to blockchains only by mastering low-cost, open and free data channels, so that this data can play a central role to benefit people.

Sue: Can you illustrate the IoT industry chain to us from the top to the bottom? And what position is MXC Foundation taking place?

Sheen: The IoT industry chain is divided into three parts. The first part includescloud platforms

, such as Alibaba Cloud, Tianyi Cloud, Amazon Cloud and Tencent Cloud, all of which are currently the upstream of the IoT industry chain. Like water, data needs to flow into the sea via various rivers and pipelines. No matter where the data sources came from, they will eventually flow into a sea, that is, a cloud platform.

The midstream of the IoT industry chain carriestelecom operators

. Their business model is very simple: selling SIM cards and collecting traffic fees, similar to moving water to sea.

The downstream of the industry chain are companies like Xiaomi, Huawei and other intelligent devices companies

.They provide chip equipment to farms, property management companies and ports to land actual projects. The prospect of the IoT industry is optimistic, but now the IoT industry chain is highly abnormal — most money is earned by midstream and upstream companies. Downstream companies are running on a traditional business model which specializes in selling intelligent devices. Therefore, if we replace telecom operators in the midstream with the IoT industry, we completely reshape the traditional profit model. Data does not have to flow to a centralized cloud platform, but can also be stored in a decentralized platform, so that companies downstream of the industry chain can earn more profits.

In addition to reshaping business model, these intelligent device companies can share the growth profits of corresponding industries buy utilizing data of things. When TUYA occupies a market share of 80–90% of the data of property management companies in China, it knows the operation of any property management companies, which gives it a very big voice in vertical markets. Therefore, it can work with customers to release the value of their data, which will be higher than the sales value of the equipment used to gather it. MXC Foundation can help companies like this have more voices in certain fields through network and data cross-chain business.

Sue: Can you talk about the financing history of MXC Foundation. Why do EU and domestic talent programs also choose to fund MXC?

Sheen: MXC's business model and direction are favored by governments around the world: our projects are funded by the EU Horizon Project and People's Government of Xihu District, Hangzhou City.

At present, the IoT industry has reached its watershed moment to embrace the transition. The current trend is that governments around the world are building big data bureaus to allow such departments to better understand the governance of cities, villages, oceans and forests through blockchain and other technologies. The data collection of things (cities, countries, forests and oceans) is still in an unknown state, and the potential development of industry is unlimited.

Sue: I heard that MXC has recently got access to Kusama Parachain Slots. Can you introduce the layout of MXC in Polkadot in the future? How does the company develop its own business on chain?

Sheen: In the future, in terms of Kusama Parachain Slots, we will first access parallel chains to fast iterative blockchain networks suitable for small and medium-sized enterprises to release the potential of data. These short, adaptable and fast iterative networks will be accessible to more blockchains to facilitate our testing.

In the future, in terms of Polkadot, we hope to work together with companies engaged in storage, DeFi and insurance to make use of real-world data. For example, when your car parked in the underground garage is flooded with water, an insurance smart contract can be triggered to provide compensation to you. In the future, in terms of Polkadot, we look forward to working with more projects to tap the value of IoT real data. At the same time, we also hope to empower more IoT enterprises with the help of Polkadot Parachain.

Sue: Can you imagine the future of IoT companies? And what is the future smart city like?

Sheen: I believe that all IoT companies will become respected companies in the future. Today's Internet giants are losing respect because they make profits through users' data.

However, the development of IoT companies brings multiple benefits: improving the convenience of urban life and the happiness of citizens by optimizing the operating system of the whole society, without personal privacy involved. Such data can be collected by IoT companies around the world, and then provided to governments and citizens free of charge. Everyone can enjoy the convenience brought by smart cities, smart agriculture, smart ports and smart logistics. I am confident that many respected companies will follow our lead.