Why China's Digital Ad Industry Needs Blockchain

Even in spite of its inherent cost

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An interview with:

Bennett Hong

CTO and Co-Founder
Jingshuo Technology Group

It's a costly and challenging feat to implement blockchain technology. But digital advertisers in China can't let these barriers stop them from doing so, according to Bennett Hong, CTO and co-founder of ad tech company Jingshuo Technology Group. eMarketer's Man-Chung Cheung spoke with Hong about the state of blockchain technology in China, how the technology can vastly improve the country's digital advertising ecosystem and what's stopping advertisers from adopting it.

eMarketer:

What is the Chinese government's general attitude toward blockchain technology?

Bennett Hong:

Since it is a technology that brings distributed tamper-proof ledgers and smart contracts into the digital ecosystem, the Chinese government supports and even encourages R & D [research and development] in blockchain.

The People's Bank of China—which is essentially the central bank of the country—has also conducted some proof-of-concept tests and built prototype designs with cooperation from banks and financial entities. Some regional governments even offer tax deductions for blockchain companies registered in their regions.

eMarketer:

In China today, who are the important players to know in blockchain?

Bennett Hong:

First and foremost is the People's Bank of China, as well as leading tech companies like Tencent and Alibaba.

Banking and financial conglomerate Ping An Group's technology arm, Ping An Technology, offers blockchain-backed solutions for secure contracts. Cloud-based technology company Xunlei just launched an open platform to build a blockchain ecosystem.

Another important player is Wanxiang Blockchain Labs, which is an industry-based non-profit research institute. And some virtual coin exchanges include Huobi, Okex and Binance.

eMarketer:

What can blockchain technology do for the digital advertising industry? Can it help solve problems such as ad fraud and brand safety?

Bennett Hong:

Yes, blockchain can help tremendously in providing transparency for digital advertising, and make efforts in anti-fraud, viewability and brand safety more efficient.

For example, all publishers can claim their inventory impressions in real time to the chain, while all third parties can audit or certificate the quality and viewability of such impressions. On top of that, all the claims and certifications can be recorded and traced via the chain.

> "Frankly, it's not economical ... but the technology offers more transparency and traceability for all players in the digital advertising industry."

eMarketer:

What's the cost of implementing blockchain for advertisers? Does the benefit outweigh the cost?

Bennett Hong:

Blockchain sometimes means more complexity and duplication. Frankly, it's not economical since there is a huge waste due to ledger duplication and broadcasting communication among all chain nodes, but the technology offers more transparency and traceability for all players in the digital advertising industry, which creates value that outweighs the cost.

For the sake of developing trust in the industry, I think all players should consider bearing this cost, even if it means more complexity and duplication.

eMarketer:

One criticism of applying blockchain technology to digital advertising is that it doesn't scale. Do you agree?

Bennett Hong:

I don't entirely agree. Concurrency of transactions can be very high, and is mainly affected by the asymmetric cryptography algorithm for signature and identification a chain suggests.

The HTTPS protocol has already applied a dozen different asymmetric cryptographies, which can also support a server with heavy load handling up to 2,000 requests per second.

Data verification across chain nodes may be another bottleneck in the whole chain, but there are a variety of solutions as well. With sufficient memory or fast storage, such as a PCIe SSD [PCI Express solid-state drive], a distributed transaction database—like Google's Spanner, Alibaba's OceanBase and PingCAP's TiDB—can handle more than 1 million transactions per second. Alibaba's OceanBase launched in 2014 and is designed for a 1 million transactions per second peak during the Singles' Day shopping festival, with a large cluster of servers with SSD storage.

> "Everybody is talking about blockchain, but no one has found a sustainable business model yet."

eMarketer:

How quickly is the digital advertising industry in China adopting blockchain technology?

Bennett Hong:

Everybody is talking about blockchain, but no one has found a sustainable business model yet. Some experiments and proof of concepts, such as advertiser first-party data on-chain services, are being carried out on Xiaomi's ad platform.

eMarketer:

What factors should advertisers consider when identifying blockchain service providers to work with?

Bennett Hong:

Some of the important questions that advertisers need to ask themselves before identifying a blockchain solution provider are: What kind of scenario requires a solution such as blockchain? Is there a lack of transparency in the multilateral cooperation that they are involved in? Who are the blockchain players out there, and what roles do they play in such a multilateral system? Is there a need for a mechanism of credits or currencies in such a system for accounting or exchanging among the players?

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