

BLOCKCHAIN IN TELECOMMUNICATION SECTOR

A Quick Summary



TELECOMMUNICATION

Telecom Companies generally have a centralised operational structure and a centralised database where they hold data. This centralised mode of managing operations and data lead to inefficiencies in the Telecommunications Industry such as:

- Expensive usage & roaming fees
- Wrong/inaccurate invoices
- Risk of identity/account fraud
- Security-related issues
- Additional fees by Intermediary companies

All these problems both increase costs for customers, cause inconsistent terms & conditions in customer contracts and affect telecom companies' revenue negatively. (Koksal, 2019)

Specific areas of interest in Telecommunications sector and how Blockchain will address those areas are summarised below:

Payment: This is an area where any telecom company can utilise regardless of whether they decide to change their infrastructure or not. There are Blockchain solutions already on the market utilised for both mobile and online payments in many cryptocurrencies. In fact, in addition to invoice payments for mobile services, there are solutions for TV, telephone and internet services for individuals and there are companies that design and provide hosting of distributed ledger solutions for enterprises. (Beasrow, 2019)

Fee Structure: Micro payments become feasible with the introduction of Blockchain Technologies and cryptocurrencies. In Telecommunication sector, this allowed customised digital advertising, an additional source of revenue for telecom companies. There are blockchain-based solutions proposed in which the subscribers of telecom companies are offered free services and are even awarded for their increased engagement.

Roaming: Similar to changes in fee structure, roaming fees may reduce greatly or diminish completely with the user of Blockchain Technologies. There are private Blockchain solutions for mobile operators and service providers allowing interaction with subscribers without any intermediaries in which the subscribers can subscribe to offers and services. This model allows the cost reduction in acquisition though revenue per user and overall value increase. (Beasrow, 2019)

Privacy and Fraud Detection: According to Deloitte's recent report (Institute, 2016) on how Blockchain can impact the telecommunication industry, fraud costs this sector over USD 38 billion per annum. These frauds are usually related to roaming and identity management. Blockchain solutions can allow roaming contracts to be written as smart contracts. Based on call/event data, the smart contracts would enable almost-instantenous charging which would lead to reduction in roaming fraud. As per ID Management, Blockchain solutions offer a mutable, distributed data ledger which means faster device recognition and identification even during mobility. These advancements will also remove the need for physical SIM cards which is further reduction of costs for telecom companies.



Trading of unutilised data: The service contracts of users allow certain amount of free minutes, texts, data per month. Regardless of whether these free data is used or not, the service providers reset the amount every month and the leftover minutes,texts and data disappear. There are blockchain marketplace solutions for the trading of these leftovers.

Internet of Things: In the context of Machine-to-Machine interaction, there are times when the data sent from one device to another may include sensitive information such as patient medical data. Telecom companies can also utilise Blockchain solutions for such cases where keeping data secure and immutable do matter.

Subsectors

Roaming, ID Management, IOT

Stakeholders

Telecom Companies, Subscribers, Dapp Developers, Mobile Operators, Digital Advertising Companies,

Asset Type

The type of tokens in this sector are generally utility tokens with exceptions. Depending on the coin, there are different services provided. Examples to these services include, but not limited to, processing all services and data requests for subscribers, providing unutilised data as tokens to be used for other services provided, monthly payments, roaming fee, validating smart contracts, requesting or providing data permissions, etc.



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