

Blockchain and the Future of Commercial Real Estate Transactions

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Blockchain, once known primarily as the distributed ledger technology that powered bitcoin into the public conscious, is increasingly seen as a tool to facilitate efficient execution of business transactions and projects.

Attributes of blockchain include the following:

1. **Transparency** – All participants use a single platform as a source for transaction information.
2. **Trust** – All transaction information is available to all participants and cannot generally be modified or refuted once uploaded and verified.
3. **Reduced Intermediary Involvement; Improved Efficiency** – The blockchain process removes, or at least reduces, the need for third-party intermediaries. In addition, smart contracts permit the use of executable programs (coding to verify approved modifications, signatures, satisfaction of conditions, etc.). These trigger transfer of information and release of funds once pre-approved conditions are met and may also allow for digital signatures.
4. **Accountability** – The blockchain is immutable, timestamped and perpetual, creating a permanent record of the transaction. The process also provides security against data breach because multiple servers have a record of the correct block (which is protected by a validation code).

Using Blockchain in CRE Transactions

In commercial real estate, blockchain is a good option where the transaction requires an accessible but secure repository for information, due to the participation of multiple parties where the participants have a need to validate data integrity. It is also useful where the transaction has dependent parts, each of which must be verified as complete as a condition to moving forward. Blockchain technology reduces the need for intermediaries who would otherwise perform the validation and completion process, which, in turn, speeds up the transaction. Data and funds move in almost real time, reducing the risk and delay of gap periods.

The commercial leasing process showcases the effectiveness of blockchain. Listing information and building/market details are compiled from multiple sources and placed in the chain, streamlining the collection of due diligence information. Smart contracts are used to negotiate and execute the letter of intent and subsequent lease, with agreed revisions permanently documented. The parties use digital signatures to execute the lease, transmitted via the smart contract process. Following execution, the chain manages all transactional aspects, including confirmation of receipt of security deposits and advance rent, completion of tenant improvements and payment of allowances, issuance of billing statements and tracking of payment history, provision of pass-through analysis and coordination of billing of overages, tracking expiration dates and renewal deadlines and requirements; and, finally, surrender of the premises, including satisfaction of turn-over obligations and refund of the deposit. Each of these actions is a block in the chain and is electronically logged and confirmed complete (whether via affirmative action or lapse of time with no action). In addition, maintenance schedules may be uploaded for immediate reference to ensure proper maintenance and more efficiently address service life of building structural items, systems and equipment.

Blockchain Challenges in CRE

Blockchain relies on technology, which often is not a significant component of a deal budget, and the efficiency of blockchain will eventually require standardization of the technology and platforms used. Companies interested in blockchain will need to manage these costs. A more fundamental challenge is the transparent nature of blockchain, which runs counter to many real estate transactions that assume confidentiality of deal terms and property conditions.

Transitioning to the transparent blockchain process will require an adjustment in how parties view the nature of the information shared between them. Blockchain may initially be most useful in on-going, volume transactions, such as the leasing and property management function. As the industry adapts to blockchain's benefits and challenges, the technology may more easily evolve to the deal sector in the industry.

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