Blockchain application in the real estate industry:
Overview of projects that have been launched or are approaching deployment
Real estate and opportunities in blockchain

While there is endless talk about the possibilities of blockchain for businesses and across industries, as well as hundreds of projects in the pipeline, few such initiatives have come to fruition. Among the most prominent industries that have adopted the blockchain technology are real estate, insurance, loans, copyright, and the legal sector. As follows, we provide an industry overview for the real estate industry, including a brief introduction on the employment and potential for blockchain within the sector and a detailed list of those projects that are already being implemented.

Background

The real estate industry has readily embraced blockchain, as it enables property owners, prospective investors/buyers, and tenants to define, manage, and automate their business relations independent of third parties and experts (agents, marketing, administration). Traditionally, the reliance on such industry practitioners has led to price distortions, inefficiencies, and a long and tedious transfer process. How then does cryptographically secure price accuracy, facilitate efficient property management, and optimize property sales/rental agreements while instantly transferring property?

- Permanent and verifiably definite transactions, logged using data-blocks. An encrypted ledger with a centralized admin is set in place. Authentications across synchronized nodes of network mean the information remains intact and current.
- Instant execution of property sale agreements/rental contracts (through the use of a smart contract), registered with the registrar and all participating parties. Quick and efficient management of property with vendors at best bid pricing, adjusted for reputation considerations.

“Blockchain offers an open source, universal protocol for property buying, conveyancing, recording, escrow, crowdfunding, and more. It can reduce costs, stamp out fraud, speed up transactions, increase financial privacy, internationalize markets, and make real estate a liquid asset.” – International Blockchain Real Estate Association (IBREA)
How is blockchain used in real estate

**Blockchain Real Estate**

Blockchain and Smart Contracts are going to revolutionize the Real Estate industry. The technology will improve property searches and facilitate the buying and selling real estate process, rental agreements between landlord and tenants, record payment processes. Most importantly, it will reduce costs and increase transparency.

**Rental Agreements**
Signature and verification between landlord and tenant. No additional fees or intermediaries like banks and real estate agencies. No extra payments involved.

**Rental Payments**
Transparent, secure and automatic payments between two parties. Once the Smart Contract is implemented on blockchain, it cannot be edited or changed.

**Buying Real Estate**
Agreement between seller and buyer written on a Smart Contract. No third parties are involved like banks, lawyers or brokers. Once the settlement is final and the Smart Contract is in the blockchain, ownership of the property is undisputed.

**Open Houses**
Access to the property is automatized with a Smart Contract between seller and prospect.
Top real estate blockchain projects

**Ubitquity – Real estate record-keeping**

HQ: Wilmington, DE, USA

**Description:** The first blockchain-secured platform for real estate record-keeping. Records tracking titles and other property records transparently. Makes future title searches faster and more efficient. Allows individuals, businesses, and municipalities to store and track properties securely, through the blockchain ledger.

**Blockchain network:** Blockchain-agnostic platform. Currently operating on the Bitcoin blockchain, though also compatible with Ethereum, Hyperledger, and MultiChain.

**Deployment:** Piloted with Brazil’s land records bureau, with the goal of providing secure and cheaper property deeds storage and tracking throughout South America. The pilot is already underway and adding public property record data in the Pelotas and Morro Redondo region municipalities.

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**Bee Token – Home-sharing**

HQ: San Francisco

**Description:** As the first decentralized home-sharing network, Bee Token provides a marketplace for home rentals, allowing people to find homes to rent and hosts to earn income. Features easy and secure payment, a decentralized arbitration system for dispute resolution, and reputation management. Also accommodates third-party integration with CouchSurfing and AirBnB.

**Blockchain network:** Ethereum.

**Deployment:** Bee Token officially launched its “Alpha Pilot Program” Beenest in the San Francisco Bay Area and in Los Angeles on May 5, 2018.
Top real estate blockchain projects

**Atlant – Tokenized ownership and P2P rentals**
HQ: Moscow

*Description:* Provides a platform for P2P (peer-to-peer) rentals and tokenized ownership, with potential for fractional ownership structures. Tenants and landlords connect, pay, and settle disputes directly and efficiently.

*Blockchain network:* Ethereum

*Deployment:* The pilot program for the ATLANT Node, an integral part of the ATLANT Platform, was successfully launched in a testnet environment on April 25, 2018. The ATLANT Node is designed from the ground up to interact closely with the Ethereum network, in particular, smart contracts relating to the Platform, PTOs, and KYC/AML (Know Your Customer/Anti-Money Laundering identity regulations) for property token holders.

**Rentberry – Home rentals and price negotiation**
HQ: New York

*Description:* Long-term home rental service and price negotiation platform uniting landlords and tenants. Rentberry features a completely automated rental process, including submitting personal information and credit reports, transparent rental auctions, making custom offers, as well as online rental payment and signing of rental agreements. It also offers online tours of locations. Through the Rentberry platform, payments for rent and other services can be made/received in BERRY tokens. Its collaboration with local credit bureaus, banks, insurance companies, cryptocurrency exchanges, property management, and real estate companies means landlords and tenants across the globe can access blockchain real estate infrastructure.

*Blockchain network:* Bitcoin and Ethereum.

*Deployment:* Since launching its pilot program on May 17, 2016, more than 200,000 properties have been listed on its platform in over 5,000 cities, with upwards of 120,000 users processing over 224,000 properties.
Top real estate blockchain projects

**I-house - Global real estate investment platform**

HQ: Beijing

**Description:** The IHT Real Estate Protocol (IHT Coin or Token) gets global real estate on the blockchain through its asset management protocol. It connects real estate developers, financial institutions, and their users. Through smart contracts and distributed accounting technology, real estate can be divided under i-house.com and transactions can become part of a “digital credit society.” Owners and investors thus become beneficiaries of the i-house.com real estate blockchain. Large real estate can also be divided and distributed to financial institutions, allowing users to make small, low-risk, secure real estate investments.

**Blockchain network:** Bitcoin.

**Deployment:** Beta testing was initiated in the first quarter of 2018.

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**Etherty – Crowd-sale and trading of global properties**

HQ: Dubai

**Description:** Etherty is a cryptocurrency-linked investment portal that enables anyone to buy, sell, and trade property easily by guiding users through the entire process: assistance in creating listings, property valuation and inspections, providing stock market type indicators on Tokenized properties, completing transactions using smart contracts, handling legal documentation and framework in case of multiple owners, and more. It uses crowd-investment of Tokenized real estate units (property shares traded as Tokenized units) and creates a marketplace on its platform to trade Tokenized real estate shares, thus breaking the minimum threshold for investment. It will also be introducing the ETY cryptocurrency token.

**Blockchain network:** Bitcoin and Ethereum.

**Deployment:** Beta version was launched on December 25, 2017.
Top real estate blockchain projects

**BitRent – Global property trading and investment**

HQ: London

**Description:** The BitRent platform aims to facilitate commercial and residential property investments worldwide from the earliest stages of construction and without georeferencing. It makes such investments predictable and transparent while reducing costs. It combines open Building Information Modeling (BIM), monitoring automation of all stages of construction, green standards, and the opportunity for shared participation in the early stages of prospective commercial and residential real estate projects through use of cryptocurrency. The RNT token is used for services offered on Bitrent and commission fees, while construction projects issue their own security tokens, which can be used to redeem dividends in commercial projects (e.g. department stores, hotels, etc.).

**Blockchain network:** Bitcoin

**Deployment:** A Beta version of the BitRent platform was launched on February 16, 2018. RNT tokens were issued in March and May 2018. In June 2018, RNTB tokens were distributed for voting and listed on the BIT-Z exchange.

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**Conclusion**

The real estate sector has proven to be a leader and pioneer in blockchain adoption among the industries, recognizing the limitations of an outdated industry system and the immense potential and immediate benefits of the use of smart contracts. While professionals in the industry are fully aware that blockchain is the future, progress has nonetheless been slow. There are still a number of obstacles impeding the widespread adoption of blockchain and smart contracts in real estate. First, there is a reluctance by the third parties who have profited from the old and familiar model of real estate. These include real estate agents, banks, lawyers, insurance companies, conveyance specialists, and valuers, among others. Second is the issue of accessibility for all those involved. While blockchain and smart contracts bring efficiency, transparency, and security, the adoption of this technology by businesses has until now required hiring specialists with knowledge of a particular blockchain language. Such experts are still far and few, and this of course can be costly, thus deterring industry players from incorporating blockchain in their real estate businesses.
iOlite: Facilitating the adoption of blockchain/smart contracts in real estate

How can these obstacles be overcome?

The key is accessibility in order to enable all parties within the real estate ecosystem to reap the benefits of blockchain and smart contracts. There is a dire need for a bridge between the blockchain technology and these industry players. This is the role that the iOlite platform fulfills.

iOlite provides mainstream businesses with easy access to blockchain technology. iOlite is integrated via an IDE (Integrated Development Environment) plugin, maintaining a familiar environment for programmers and providing untrained users simple tools to work with. The iOlite platform thus enables any business to integrate blockchain into its workflow in order to write smart contracts and design blockchain applications using natural language.

How it works

iOlite’s open-source platform translates any natural language into a smart contract code available for execution on any blockchain. The solution utilizes CI (Collective Intelligence), in essence a crowdsourcing of coder expertise, which is aggregated into a knowledge database, i.e. iOlite Blockchain. This knowledge is then used by the iOlite NLP grammar engine (based on Stanford UC research), the Fast Adaptation Engine (FAE), to migrate input text into the target blockchain executable code.

The future of blockchain in real estate

With so many different players in the industry ecosystem (developers, investors/buyers, landlords, renters, and other stakeholders), the use of blockchain and smart contracts benefits all parties by bringing efficiency, trust, and transparency. iOlite empowers mainstream businesses with these capabilities, including easily writing smart contracts using any spoken language.

While there is still much progress to be made, there is no doubt that blockchain/smart contracts are the future of real estate. The goal is clear, the real issue is how to make this happen. By making a previously inaccessible technology within reach and making the writing of smart contracts easy, iOlite can make the full incorporation of blockchain and smart contracts in real estate a reality.