

# **BlockMembers Member Placement**

Technical Documentation

May 2020

## **1. Introduction**

BlockMembers has created the very first digital token that will equal tangible value in support of a newly launched industry of Auto Construction. The digital token, which is referred to as a Membership Placeholder (MP), is an ERC 20 fungible token with an early launch value of \$0.10USD and limited availability of 120 Million.

The Member Placement token will support the growth and development of Auto Construction, a new industry that will alter the construction industry in a positive manner through reduced costs and waste thus resulting in safer, secure, and more affordable housing.

As the Auto Construction industry grows in demand, those who own Member Placeholders will benefit greatly through their ownership.

## **2. The Block Exchange**

If a member only holds one MP, they then may trade 1 Block (Modular Building Unit) at a time. With 2 memberships they can trade 2 blocks at a time. This can result in exponential growth of a member's holdings over time and the reasoning behind the release of affordable MPs (to be attainable for mass population). A member is able to trade with only one block, as their holdings grow or have the option to trade thousands of MBUs per trade.

This is the digital equivalent to flipping homes, or buildings, without ever having to enter the physical world.

A large home (5000 sq ft with several bathrooms), will require over 1400 MBUs to complete, and therefore this home could be traded (purchased and sold at once on exchange) with an

equivalent number of 1400 MPs. The greater member holdings are as industry trade grows, the more in demand the MPs will be. Members who cash out their blocks (take delivery for a building), may still keep their MPs for future use on exchange. These could even become legacy trading instruments. For completed homes, only 1MP would be required to buy the home, or to enable realtors to sell the homes.

In addition to this use, MPs will be further utilized for entry into Data Processing and Energy Distribution networks later within the AECROS ecosystem.

### **3. ERC-721**

Monetized building units are non-fungible ERC-721 tokens and each one represents a single modular building unit and its digital twin.

Digital Twins enable further uses in the AECR process which are described elsewhere but essentially assist with specifications for civil engineering and architectural design stages including design libraries and other applications.

The physical twins of the non-fungible MBUs are physical units called Modular Monetized Building Units.

When construction is undertaken, the MBUs are shipped to building sites. In the meantime, they may be in either production, transit, or warehousing. The inclusion of IoT LoRa beacons in each block allows us to track these insured units to the sites. Building drones can digitally identify them for placement in buildings.

These blocks can be put up for sale by members on the exchange, to be purchased by companies, organizations, and individuals who require building units to complete permanent construction or to create temporary buildings for shelter.

The Membership Placeholder is a fungible token or ERC-20, an Ethereum based token.

The Monetized Building Unit will likely be a Non-Fungible Token or ERC-721 Ethereum based token.

The ERC-1155 may be utilized in the near future for other transaction types in AECROS.

*NOTE: Definitions and specific uses may change in the future.*

#### **4. The Block Trading Platform**

The first use of blockchain within AECROS is to build the Block ExchangeTrading DAPP. This enables traders to build block inventory (ie; member block holdings) on exchange. Physical block production parallels this exchange inventory, moving through the supply chain, and exiting the exchange into the physical market. Profits and results now become predictable and repeatable.

#### **DESIGN LIBRARY**

Immutable ledgers secure designs and specifications within AECROS. The architectural design library holds intellectual property from contributing architects and other contributors to reliably and efficiently plan new projects. This library also integrates with the AECROS block exchange to finance homes and other projects for members.

#### **INTERNET OF THINGS; PROOF OF LOCATION**

Each component of the construction assembly system is “packed and tracked” in the logistics portion of AECROS to enable reliable delivery and unit placements in their correct locations. Heavy equipment and other systems also use LoRA beacons and satellite tracking to enable the smooth flow of operations and increase system awareness. Blockchain connects the IoT to the user interface and insurance provisions to ensure predictable and high-value outcomes.

#### **AUGMENTED REALITY**

On the building site, blockchain connects robotic drones with maintenance records, contract scheduling agreements, and a host of other service-based applications. Augmented reality also relies on reliable location data (see IoT) to conceive an accurate picture of the landscape and operational environment. TRU View AR of the building site can correlate building plans with the building landscape in real-time even as new designs progress.

#### **TRUST AND RELIABILITY**

Throughout the history of the AEC and R industries, trust and reliability have both been points of failure. Countless projects around the globe have collapsed due to trust issues wasting trillions in productivity. Immutable ledgers provide the missing key to this problem. Operational records are made transparent and secure, creating trust and consistency between parties. Automated Finance can guarantee product and financing availability within minutes of project inception, and even govern the design process to maintain preset financing parameters. Predictable outcomes are of high value in AEC and R.

In the construction process, it is easiest to imagine the building as a puzzle. Each modular building unit has a unique, but repeatable specifications and function. Blockchain tracks these puzzle pieces to organize, record, and connect each specific unit to work together.

This can be envisioned as a “build by numbers” construction system which is 100% reliable. Imagine construction without mistakes.

This is truly a new age for the AEC & R industries. It is what AECROS does not offer that is important. No cost overruns, no theft of materials, no wasted time, and schedule delays due to errors, no financing delays, or cancellations. The implications are vast.

AECROS is imagining a world where everyone can have a home. Block Members are the first to gain access to the limited supply.

## **5. Membership Rewards Program**

**Will need a statement here to describe how these stages work:**

**Seed round of 10 Million Memberships in May/June, 2020**

**Stage 1** 1,000,000 Membership Placeholders @ 10 cents

**Stage 2** 1,000,000 Membership Placeholders @ 20 cents

**Stage 3** 1,000,000 Membership Placeholders @ 30 cents

**Stage 4** 1,000,000 Membership Placeholders @ 40 cents

**Stage 5** 1,000,000 Membership Placeholders @ 50 cents

**Stage 6** 1,000,000 Membership Placeholders @ 60 cents

**Stage 7** 1,000,000 Membership Placeholders @ 70 cents

**Stage 8** 1,000,000 Membership Placeholders @ 80 cents

**Stage 9** 1,000,000 Membership Placeholders @ 90 cents

**Stage 10** 1,000,000 Membership Placeholders @1.00 cents

## **6. The Block Market**

The Block Market will consist of Members with Placeholders, who desire to trade blocks (MBUs) and memberships (MP)s on exchanges.

### **Where does Block demand come from?**

Since these blocks or MBUs are the key units of AECROS, these Blocks and the buildings they create will be in high demand. The industries they will serve include residential and commercial construction, industrial, mining and energy sector projects, insurance companies and disaster relief agencies, agriculture, movie production, and concert venues. It could be argued that there is practically limitless demand in these and other sectors for the rapid deployment of high quality and cost-effective buildings. RE-USE buildings will open even more market demand. This is to disregard the demand created by the new software and developing financial systems of AECROS, which are no small consideration.

### **The Block Fund**

The "Block Fund" will be created with the release of MBUs at STO. The Block Fund is the aggregate of all the Blocks for Sale, by all members at any given time. This might be considered the Block Market Cap which will serve the demand from many industry sectors. As the orders move from industry into the Block Market, blocks will rapidly be consumed while AECROS manufacturers will work to replace them. This buy/sell movement is called inventory rollover. While it cannot be exactly predicted how quickly this rollover will occur in the beginning, the tendency will be for increasing orders from the AECROS system as it becomes more widely known to the industry.

### **The Coming Block Shortage**

Large industry players are capable of consuming many billions of dollars worth of inventory upon discovery. There is no artificial scarcity required here, in fact, purchasers are capable of consuming nearly any amount of inventory faster than AECROS supply can rise to meet demand. No matter how much we try to ramp up production, in the real world, time, scheduling, and distances will naturally tend to slow progress. This creates a chronic shortage problem when supply cannot grow quickly enough to meet demand. How to solve this problem? Enter: The

Block Fund. As members purchase and (hopefully choose to) rollover their inventory, the Block Fund will continue to grow, and serve larger projects, which in turn creates more awareness and demand.

### **Rollovers and Exits**

As trading comes online, consumption will begin. There is no predicting exactly how quickly this will happen, due to factors such as trading platform readiness, listings, and order times. As the system develops rollovers will occur more frequently and with more regularity. The faster these trade rollovers occur, the more rapidly the fund will grow. Then as we see traders' funds grow, we will have additional consumption of inventory, not only from increasing industry demand. We will also see demand from Block Traders who have reached a point where they now desire to build homes and other buildings such as hotels, recreational properties, etc. These projects will have high utility/value and will be too attractive to resist for long. Consider a Block Trader who has built enough block inventory to build a large home, and perhaps desires to live there. These traders will be considered to have graduated to "Wall Street", having assembled enough blocks to build walls. As these exits occur, this will further consume the block market cap, which will need to continually be built up by the remaining Block Trading members. It should be noted, that Block Trading will require equivalent membership placeholders at a rate of 1MP per 10 MBUs trading. Members should consider this carefully before choosing to sell or trade all or a portion of their membership placeholders.

**Q:** Why would an industry buyer choose to purchase Blocks from the Block Fund, why not "just" buy their blocks "directly"?

**A:** Blocks Purchased during STO will go into production immediately. These blocks will be farther along the supply chain. They will be available for immediate delivery, or at least, they will be soonest to be available. Consider the time costs of waiting to finish a new home, or to open a new business or facility Eg: mall, hotel, hospital, airport. The monthly financing costs of time, and the monthly revenue opportunity losses from "not being open for business", are very expensive. To mitigate these losses businesses usually desire to finish construction (and open for business) as soon as possible. If the Block fund is offering immediate delivery, businesses will usually choose the faster option.

### **Low Markup**

A financing markup of only 10%-15% on the materials and labor is already quite small for any AEGR project. The additional advantage of having a project available immediately is far less costly than the waiting time, or even larger additional costs of building using conventional

methods. Furthermore, consider yourself as a potential franchisee faced with two options. Option 1: Pay 10 -20 million dollars in up-front inventory costs to start the business. Option 2: leverage the Block Fund, purchasing existing inventory from the Block Market as required, for a relatively low cost in financing. This will make franchises much easier to start, which benefits the Block Fund with increasing demand, and increases the velocity at which these franchises can grow. A circle of increasing demand is in the best interests of the entire Auto Construction industry. All known stakeholders will have aligning interests. Cost and time are the strongest advantages overall, while a unique level of quality and security also increases demand.

### **Why is Membership Important?**

Waiting times and the high potential of shortages are both reasons why Membership Priority will be very important in the Block Market. Home and other real estate ownership are also generally considered to be valuable. Members Access Priority to supply, trading, and their discount is preserved with the Membership

Placeholders. The membership is the key to the industry. Next time the value of famous crypto falls precipitously, it cannot reasonably be suggested that they “just take delivery” and “move-in”. This is one utility aspect of the MBU that is unique. MBU consumption, in turn, reflects upon the Membership Placeholder Value as rollovers increase in frequency.