



Technical Requirements: Ultra Blockchain

ULTRA INTRODUCTION

Hub Culture is a technology ecosystem involving a network of complementary technologies and services.

Hub Culture (2002) is a social collaboration platform with an ecosystem of related services:

Pavilions (2004) - physical collaboration spaces and experiences to connect the community

Ven (2007) - an asset backed digital currency <https://ven.vc>

HubID (2014) - a digital identity system covering people, entities, property and objects <http://hubid.me>

OAI (2015) - The Open Audit Initiative, a real-time auditing function using crypto attributes. <http://oai.io>

Zeke (2017) - an emergent artificial intelligence <http://zeke.ai>

Lyphic | Bermuda Standard (2013/2017) - a standards layer and lexology for executing counter-party agreements
Lyphic.com and bermudastandard.com

Together these technologies form an ecosystem designed to add value and worth to the lives of members, with a mission to enhance the collective consciousness of the people in the network.

Since 2009 and the arrival of Bitcoin and distributed ledger technology called blockchains, fundamental progress has been achieved to enable new types of activity across distributed or peer to peer networks. These technologies can individually and collectively benefit from the introduction of a blockchain to aspects of their technical DNA in an effort to enhance security, operations, and ultimate viability. In short, a blockchain layer creates *Ultra* new capabilities for these and other assets.

The ULTRA BLOCKCHAIN

Ultra is a blockchain powered by Ven offering a set of services to the community focused on immediacy and efficiency for the creation, storage, and trade of digital assets in the form of a distributed system. Ultra enables a community member to perform these tasks on the network without the requirement of spending Ven as an underlying fuel/token/currency to perform a function in the network, but does allow the community member to audit the creation, storage and trade of digital assets in the system if they so wish. In so doing, a network of asset hubs exist that can exist and function semi-autonomously, moving across the audit system in a separated event.

The purpose of Ultra is to enable the creation and trade of digital assets, with a focus on asset backed units, especially in the realm of tokenization. The initial use case focus for assets on the Ultra blockchain include Ven itself, other asset backed tokens, and data pieces called **specks**, attributes and nodes. Each unique asset launched onto the system is managed by its relevant Creation Authority. A network of Authorities may also have the capability to manage assets on behalf of other actors in the system.



Ultra Node: The Ultra node is a node in the blockchain related to any particular asset by which the owner is able to assign certain attributes they have generated. This could allow them to maintain control of their asset in the network according to certain pre-defined parameters, which opens the door to an issuer of an asset having some form of control over how the asset performs in the system. This is essential for Central Banks, who are the main downstream target for use of the system, as part of the 2016 Hub Culture Federal Reserve Project for RAIN/RAIL. ULTRA will form part of the basis for RAIN/RAIL (see document) and should be built with the components of RAIN/RAIL in mind. Much of RAIN RAIL already exists as defined as Hub Culture / Ven and HubID, but enhancements are needed to get this to a level that Central Banks and the financial system will use it to transfer assets including their own fiat.

TAO - Tokenized Asset Object

In this system, a TAO is a tradeable object on the distributed exchange / blockchain. Initial TAOs expected at launch could include Ven, Nim, fiat currencies weighted to 100% of that currency, reward currencies, airline miles, differentiated commodities, and the OAI.io – which could enable public audits, verified news, consensus data generated by Zeke.ai and more. The current Hub Culture system includes a capability to launch assets but not to trade them. Whether and how they are launched relative to asset backing is dependent on the attributes attached to the token at the time of launch. The beginnings of these Assets are visible in the Hub Culture system as store inventory assets which can include a description, imagery, price, quantity and more. A similar class of Attributes could be attached to the token, and would similarly exist in a searchable library. The beginnings of these attribute classes are visible in the Hub Culture system as terms and conditions in the lexology of the contract interfaces in the Knowledge section of the platform.

Some attributes would be accumulated by the BermudaStandard.com, where the public can contribute standards and lexology for a wide variety of assets which exist on the blockchain, as provided by their respective Authorities.

Therefore the UI components for the launch of the asset and the attribute classes already exist, and may just need to be extended into the exchange format to allow a verified user or authority to launch the asset and attributes into the library, and therefore onto the distributed exchange powered by ULTRA.

IDENTITY

Identity management for transactions across ULTRA can be managed by HubID, with the attributes of the HubID and the HubID itself being stored on the blockchain for enhanced security. Ideally, the databases for Ultra could hold identity information in a distributed set of nodes relative to each identity, allowing a person to “download” their Identity in some form to their own environment – representing a kind of data vault for their identity information.

TECHNICAL REQUIREMENTS

Federated consensus could be used by nesting each asset launched onto the system to be powered in some way by that asset itself, without consuming data across the entire network unless requested – in which case the transaction could consume some small amount of Ven.

The goal ultimately is a resilient, secure distributed asset exchange powered by the blockchain.

OTHER COMPONENTS

Aspects of multi-sig, consensus, timelock/timespace, and hash functions are open for discussion.



1. We would like to separately build onramps for Ven to be exchanged over the Ripple network and the Ethereum network, in which case we place the Ven token on those chains and enable exchange of the asset there.

2. A real-time picture from the asset trading on these blockchains to provide a total market cap and snapshot of the Ven economy outside of the core ven network is also needed, in this scenario the OAI can serve the audit function by porting a snapshot to that ledger of all transactions recording on those blockchains and replicating it to the OAI.

3. Lexon – there is an opportunity to build lexon – a standards language for smart contracts, with other partners, and to use Lexon as a tool for the Attributes component of the TAO. Lexon would ideally map to LYPHIC – a system of icons and emoji with definitions that would allow for universal Terms & Conditions to be applied to contracts. A rough and basic version of this is available for reference at lyphic.com – ideally we could pull these icons into the attribute network and let others define them through a kind of consensus delivered by Ultra.

Definitions:

Core Ven – Ven running on the core vast closed loop system.

Ultra Ven – Ven running on the ULTRA blockchain and used to power certain elements of this chain and RAIN/RAIL

Ven on Ethereum and Ripple >> transaction rails for the Ven token.

APIs for Ven – expanded and enhanced to deliver Ven to global FX and Stock Exchanges (Legacy)

Interesting Ideas:

<https://blog.tenx.tech/three-technical-requirements-to-connect-blockchains-without-a-token-98d693084849>

