



Issuing a digital asset on the Omni Layer

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Introduction

- The Omni Layer supports the creation of smart property tokens to be used for any purpose such as titles, deeds, user-backed currencies, and even investments in a company.
- These property tokens can be bought, sold and transferred using the Omni Layer
- A smart property can be a single token or a collection of tokens

Property Type

- A smart property can be either divisible or indivisible
- A divisible smart property is useful for collections of tokens that can be further subdivided, for example currencies such as Omni where one whole unit may be split into many smaller fractions (eg 1 Omni can be split into 2x 0.5 Omni).
- An indivisible smart property is useful for a single token or collection of tokens that represent a whole unit that cannot be subdivided, for example 1x title deed or 10x contracts.

Property Type Cont'd

- A smart property can be managed or unmanaged.
- Unmanaged smart properties have their total amount of tokens locked once issuance has completed, meaning the supply is fixed.
- Managed smart properties may grant and revoke (create and destroy) tokens indefinitely, meaning the supply is variable.

Issuance Type

- The type of issuance determines how tokens are created/issued.
- Managed properties do not create any tokens during issuance (supply is instead managed with the grant and revoke transactions).
- Unmanaged properties create their tokens during issuance either via a crowdsale or a one-off fixed issuance.

Issuance Type Cont'd

- A fixed issuance immediately creates N tokens when the smart property is initially created, following which no further tokens may be created for this property.
- A crowdsale issuance does not create any tokens when the smart property is initially created, instead tokens are created when funds are sent to the issuing address to participate in the crowdsale. Crowdsale issuances are created with an expiry date for the crowdsale and once this is reached no further tokens may be created for this property.

Property Metadata

- All smart properties (regardless of type) have five metadata attributes.
- These metadata attributes may not be changed after issuance.
- Each metadata attribute may be up to 255 characters.
- Metadata is for display purposes, only the property identifier is used for transacting with the property

Property Metadata Cont'd

- Property metadata attributes are as follows:
 - Property Name
 - Property Category
 - Property Subcategory
 - Property URL
 - Property Data (commonly used for a description)
- Only 'Property Name' is mandatory.

Property Identifiers

- How do you distinguish Properties?
 - All properties on the Omni Layer (including the Omni token itself) are identified by a unique property identifier.
 - This unique identifier is used to specify the property involved in Omni Layer transactions
- The property identifier is assigned once the issuance transaction has been confirmed in the chain and processed by the Omni state engine.

Property Identifiers Cont'd

- Property identifiers are assigned in the order in which properties were created (ie their order in the blockchain), for example:
 - Omni has property ID #1
 - Test Omni has property #2
 - The first Omni smart property that was created (MaidSafeCoin) has property #3

Examples

Creating a managed smart property

```
$ omnicores-cli "omni_sendissuancemanaged"  
  "1BitcoinAddress7b1QHs38rmaLExLcH" 2 1 0  
  "ExampleCategory" "ExampleSubCategory"  
  "ExampleName" "ExampleURL"  
  "ExampleDescription"
```

What does it all mean?

Creating a managed smart property

- Method = omni_sendissuancemanaged
- Issuer = 1BitcoinAddress7b1QHs38rmaLExLcH
- Ecosystem = 2 (Test)
- Type = 1 (Indivisible Tokens)
- Previous ID = 0 (replace/append currently unsupported)
- Metadata = Example Strings

Creating an unmanaged smart property with fixed supply

```
$ omnicores-cli "omni_sendissuancefixed"  
"1BitcoinAddress7b1QHs38rmaLExLcH" 2 2 0  
"ExampleCategory" "ExampleSubCategory"  
"ExampleName" "ExampleURL"  
"ExampleDescription" "1000"
```

What does it all mean?

Creating an unmanaged smart property with fixed supply

- Method = omni_sendissuancefixed
- Issuer = 1BitcoinAddress7b1QHs38rmaLExLcH
- Ecosystem = 2 (Test)
- Type = 2 (Divisible Tokens)
- Previous ID = 0 (replace/append currently unsupported)
- Metadata = Example Strings
- Amount = 1000.000000000 tokens

Creating an unmanaged smart property with a crowdsale

```
$ omnicores-cli "omni_sendissuancecrowdsale"  
"1BitcoinAddress7b1QHs38rmaLExLcH" 2 1 0  
"ExampleCategory" "ExampleSubCategory"  
"ExampleName" "ExampleURL"  
"ExampleDescription" 2 "100" 1483228800 30 2
```

What does it all mean?


Creating an unmanaged smart property with a crowdsale

- Method = omni_sendissuancecrowdsale
- Issuer = 1BitcoinAddress7b1QHs38rmaLExLcH
- Ecosystem = 2 (Test)
- Type = 1 (Indivisible Tokens)
- Previous ID = 0 (replace/append currently unsupported)
- Metadata = Example Strings

Creating an unmanaged smart property with a crowdsale

- Property ID desired to fund the crowdsale = 2
(Test Omni) Tokens created per unit funded = 100 tokens
- Crowdsale closing date (unix timestamp) = 1483228800
- Early participant bonus (decreasing over life of crowdsale) = 30%
- Extra tokens generated for issuer = 2%

Not only CLI

 OmniWallet

My Wallet ▾

Exchange ▾

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About ▾

My Account ▾

Overview

My Addresses

My Assets

History

Send

Create Smart Property

EcosystemProduction ▾

Smart Property details

Name (ex. Bobcoin)

Divisible

Yes

Category

Select ▾

Property URL (Enter a url for more info on the Smart Property)

Smart Property Description

255 characters left

Issuance Details

Number of Tokens (Enter desired amount)

Issuance Address

Miner Fees (BTC) (0.05396043 BTC available)

Further reading

- Omni Spec
 - <https://github.com/OmniLayer/spec>
- Omni Core RPC API
 - <https://github.com/OmniLayer/omnicore/blob/omnicore-0.0.10/src/omnicore/doc/rpc-api.md>