



# Trusted Tokenized Rights

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*This paper provides an overview of tokenization of assets in the Sweetbridge platform. For general information about what tokenization represents, the opportunities it unlocks and the abilities of the Sweetbridge platform see our paper on Trusted Tokenization. For information on the tokenization of rights see our paper on Trusted Tokenized Rights. If you are interested in knowing more about our Synchronized Accounting protocol, see our paper on Synchronized Accounting and Trusted Financial Information.*

# Summary

Tokenization is the use of a digital record to represent the right to ownership of something, the right to do something, or the right to goods or services. Having something that represents a right is not new. Tickets to a play or sporting event are a right to admission. Titles on a home or vehicle represent ownership of the asset. Even a check you write to someone represents a right to cash in your bank account.

Tokenization gives us the ability to make these older forms of rights digital and allows for the transfer of an asset or right without intermediaries. It also allows the right or asset to be divided between multiple owners with little effort and cost. Obviously you would not want to have multiple owners for a theater ticket but you might want to do this with gold.

Tokenization has received a lot of hype in the past few years. Some of this hype is valid, because the creation of new rights provides the opportunity to create entirely new markets and new value. Think for a moment about derivatives, which are an example of a tradable right that exists today. The derivatives markets enabled the creation of value in the 100's of trillions of dollars and far outweighs the underlying financial markets. This suggests that the tokenization of real world rights could challenge the size of today's derivatives market.

That being said, most of the claims and proposals in the market today regarding tokenization are more aspirational than practical. This is because most have not thoroughly addressed the necessary requirements of tokenization in large-scale, real-world application. What has been missing is a set of tools specifically designed to allow the rapid creation of:

- contracts by lawyers,
- accounting treatments by accountants,
- control verifications by auditors, and
- risk management by insurance companies and compliance officers.

In order for trusted tokenization to be practical in a large scale real-world application, these tools must be provided within a platform that supports regulatory compliance to ensure the ownership and value of the tokenized rights can be trusted.

The Sweetbridge Tokenized Asset and Rights protocol has been designed to provide a complete solution for the tokenization of rights with built-in controls that allow tokens to be audited in real time. It is built from the ground up for GRC (Governance, Risk, and Compliance) and to ensure continuous assurance that agreements, regulations, and workflows are followed.

This is only possible because at the core of the Sweetbridge platform is a Synchronized Accounting system that enforces agreements, audits accounting and claims, and ensures regulations are followed. This system is designed to make tokenizing of rights both easy and safe because they

can be audited in real time or verified by independent parties. This means that some or all of the actions defined in contracts can be enforced and audited.

The continuous assurance features found at the core of the Sweetbridge Synchronized Accounting platform make the tokenization of anything not only possible, but practical. The system ensures that all counterparties share the same legal documents, have compatible accounting treatments, and have digitally signed the transactions. It provides controls that enable the real-time auditing with full transparency of legal, regulatory, and accounting treatments that support these rights. In short, the system can automatically enforce and verify tokenized rights, making them trustworthy and reliable.

The ability to tokenize new rights, rights that have never been digital or tradable before, will create many multiples of the value of the underlying assets, goods, and services. We can say this with confidence because it's happened before. Whenever rights become tradeable, new markets are created. In addition to the derivatives market example already discussed, another example would be the way property titles, which are the right to ownership of a property, led to the creation of the real estate market.

This paper will address the tokenization of rights, which stretches far beyond the tokenization of assets alone.

*To get a basic understanding on what tokenization is, the opportunities it provides and some of the basic concepts behind the Sweetbridge tokenizations protocols, see our paper on [Trusted Tokenization](#). If you are interested in knowing more about our Synchronized Accounting system, see our paper on [Synchronized Accounting and Trusted Financial Information](#).*

## Tokenization of rights

Rights can be assets but the use of the word "right" in this white paper defines the difference between the ownership of the real-world asset or good and a right related to an underlying asset, good, or service created by a contract. The goal of tokenization of rights is to create an easily transferable asset out of the right. But since a right is dependent on an underlying asset or good, we define them separately in all of our papers for clarity.

Another reason to handle them separately is that the tokenization of rights represents a blue ocean<sup>1</sup> opportunity for the creation of new value. The tokenization of assets and goods is mostly an efficiency gain on existing processes. The tokenization of rights is mostly new value creation. In other cases, they need to be separated because the owner of the asset does not have the same motive as the owner of the right. Therefore, by separating the ownership from the right we can extract more value.

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<sup>1</sup> Blue Ocean Strategy is a marketing theory from a book published in 2004 which was written by W. Chan Kim and Renée Mauborgne, professors at INSEAD. ISBN: 1-59139-619-0 978-1-62527-449-6

The tokenization of rights can be used to do much more than the list of benefits for tokenizing assets— ease of transfer, lower cost, proof of genuineness, etc. The tokenization of rights can be used to create value where none exists today. This allows us to create new, previously unrealized value out of assets, goods, and services. In most cases, this value can be created without diminishing any value in the underlying asset, good, or service. This is profound because it can enable countries, companies, or individuals to create new value were none is perceived to exist today. It is similar to discovering a property you own has a container of gold buried on it. It's value you did not realize you own.

We will start by looking at some simple easy to understand examples of rights. These rights aren't very valuable but they illustrate what a right is and how simple they are to create. Then we will take a look at some sophisticated rights that are much more valuable and that have profound effects. Effects that can create even more value than the value from the goods and services on which they are based. Through the careful engineering of rights, we will show how it is possible to create network effect for product and service businesses and to unlock liquidity in supply chains.

As an example of some simple rights:

- Gucci could auction the right to buy the first Gucci bag in every new line over the next ten years — or the millionth bag. This does not cost Gucci anything and can be sold separately to the bags themselves.
- An airline could sell the right to fly first class for 50% off for five years.
- A hotel could sell the right to sell underutilized capacity in its hotels.
- Anyone could sell the right to 10% cashback on future purchases.

The list goes on and on. The number of potential rights that could be created and the value engineered on assets, goods, and services is only limited by our imagination and market demand. By tokenizing these rights, they become tradable and can be fractionalized or shared where it makes sense.

Rights don't have to be something bought or sold. For example, they could be given away as a reward or to create loyalty:

- A right to 25% off on your next meal at a list of restaurants that use a specific wine distributor as a reward for spending \$100 or more on wine in one of the restaurants,
- A right to an upgrade on a future flight,
- The right to buy a product or service a year from now at today's price, etc.

Many of these things exist today, but the point of tokenization is that these become fungible and tradable — they become "assets." This means any entity that receives the right can give or sell the right to someone else. This allows them to monetize the right.

The above examples are relatively simple and consumer oriented, but rights can be more sophisticated and can do much more in commercial situations.

# Separation of rights creates value

The tokenization of rights allows the separation of one right in an asset from another. For example, ownership of commercial property comes with two values, 1) the right to appreciation in the value of the real estate, and 2) the right to the cash flow from leasing the real estate to someone else. These can be tokenized independently and split into two rights, which can be sold or valued separately. Of course, one of these parties or the renter would have responsibility for maintaining the building.

By separating the rights, we can frequently unlock more value than if they are held together. This is a fundamental principle behind the value created in the derivatives market. The reason is the motives for owning each are different. The motive for owning the right to resale value is for long term appreciation in the asset's value. The motive for owning the right to lease is a future stream of cash flow that increases over time as lease rates go up. Depending on the local market conditions, it might be possible to use the right to cash flow to finance the purchase of the building instead of using a loan.

There are many other real estate rights that could be tokenized and sold:

- The right to be the property manager and earn x% on rents
- The right to provide services such as trash removal, electricity, janitorial services, etc.
- The right to be the insurance provider as long as pricing was within fair market value
- Etc.

All of these rights have value to different parties that might be willing to pay for them if bundled into large sets. By tokenizing these rights, they become tradable. In some cases, such as electricity providers, they could be fractionalized as well. This means they could be sold to others which would allow an organization to sell their contract to someone else.

Freehold land rents could tokenize the right to buy an extension on the land lease at a pre-set price, or the right to a percent of the revenue from a land lease extension. Landlords could sell rights to extend the land lease at the existing price or could pay for a right to sell the land if its value dropped.

Hedging could be done by offsetting rights to reduce credit risk. For example, the right to future increase in value could be separated from the right to the purchase value. The right to future cash flows on leases could be swapped with rights to real estate appreciation during periods a building sits empty. If these rights have been tokenized, they are fungible and can be combined into new rights that hedge risk, lower cost of capital, and potentially pay for the building instead of using a mortgage.

The idea that the sum of the parts is greater than the whole is an old idea. The separation of property ownership from mineral rights, for example, is common. The reason for the difference in

total value is that a buyer of a ranch who wants to raise cattle is not typically buying it in the hope of finding minerals or oil under the ground. Therefore, it is a right they would own with the property but one they may not value. However, someone else might.

These real estate examples are simply that, examples. The same thing can be done with services or goods. The point is that asset ownership implies rights but not all of those rights will be valued by the same party. That's one of the reasons why the Sweetbridge platform addresses both the assets and the rights in one unified system. The other reason is that it is impossible to safely tokenize rights and assets separately. This is because rights must be carved out from ownership, and buyers of assets must know what rights have been granted when the asset is being sold.

## Network rights create value

Rights are probably most powerful when they are extended to a network of entities or assets. By network level rights we mean a right that is granted by a group of entities or on a group of assets. To demonstrate the power of the Sweetbridge tokenized assets and rights capability, the platform comes with several relatively sophisticated built-in tokenized rights that operate at a network level.

Each of these built-in rights is an example of a right with the potential to create hundreds of billions of dollars of value. The amount of value that can be created for a specific country, company, or individual can range from a few dollars to tens of billions of dollars. All of the built-in rights are examples of rights that have not existed before. They represent relatively sophisticated uses of the Sweetbridge platform. Therefore, we have pre-built and bundled the rights with the platform to make them easier to grasp and utilize.

### Example: The right to lower cost

The tokenization of lower cost is one of the greatest opportunities and is a great example of the tokenization of network rights. Most B2B businesses offer some form of discounts to customers or would be willing to offer lower future cost for some upfront payment. By tokenizing the rights to get access to these discounts over time, the business can create an asset that has a value based on the discounted value of future cost savings.

Lower cost can be anything from 1% to 100% of the value of the goods and services. The tokenization of the right to that lower cost or discount multiplies the value based on the time period it lasts. For example, if the savings is 2.5% or more on the cost of goods and services over 10 years, the value of the right is worth more than 10% of the value of the goods and services themselves within the year it is issued. This is true even if we use a venture capital type discount rate of 25% on the net present value of these future discounts.

This means that the right to lower cost can be worth even more than the goods or services themselves depending on the discount and its length. The result is the ability to create value out of what many organizations give away today — a discount.

Imagine a company with a 10% margin who typically grants a 10% discount to its average customer being able to take  $\frac{1}{4}$  of that discount and create a tokenized right to lower cost. This would create an asset that would be worth at least a year's profit<sup>2</sup>. If the company only sold 50% of these, and held the rest on its balance sheet, it would create a 15% profit for the year which would be a 50% increase in income in our example. In addition, it would add a tradable asset on its balance sheet that is worth 5% of its revenue. The company could then sell this asset to some of its customers. The customer could then sell this asset to someone else once they stopped being a customer — in effect recruiting a replacement customer.

## Tokenized rights can create network effects

Further, tokenized rights in the Sweetbridge platform can be engineered to increase in value and to create network effect. This would be impractical using paper rights and without the existence of a platform like Sweetbridge. Since the Sweetbridge platform controls every financial transaction related to an asset or right it manages, it can implement changes in rights based on variables and algorithms. This means a right can be designed to change the amount of value it provides based on something else such as the growth of its use. For example, the more customers, the more value; the more users, the more value; the more cash flow, the more value, etc.

Simply through the engineering of the right we can create built-in growth in value. This can be implemented by simply controlling the supply of tokens, much like real estate is limited on an island. As the island is developed, if new property is gradually released as property value increases, the value of an acre goes up. Therefore, we can use artificial but algorithmically controlled scarcity to amplify the value of all rights. Through careful engineering of these rights, we can create powerful incentive mechanisms that can be used to drive adoption or network effects.

We can use this same engineering to lock customers into a long-term relationship without contracts by creating so much value that they can't afford to switch to a competitor. The potential to create billions of dollars of new asset value through rights engineering is so high that the Sweetbridge platform comes with a built-in protocol to do this called Sweetcoin. Any company can use this out-of-the-box solution with minimal implementation cost or effort<sup>3</sup>.

## Example: The right to low-risk value

In addition, tokenization allows for mixing and hedging of risks in new and highly controllable ways. For example, by tokenizing a pool of assets, and adding risk pools and insurance for loss, it is possible to tokenize the right to the low-risk value of a group of assets. By doing this one can create highly stable interest bearing assets. This tokenized value can become a Tier 1 - Class A asset even though the underlying assets are not.

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<sup>2</sup>  $2.5\% \times 4 = 10\%$  - 4 is the NPV value of a series of dollar discount at a 25% discount rate

<sup>3</sup> On the value of Sweetcoin, see our blog post, "How much is Sweetcoin (SWC) really worth and other relevant questions around the Sweetbridge crowdsale."



This is nothing new. Today this is done by securitized debt instruments using derivatives such as swaps. The difference is the auditability, transparency, and ease with which this can be done by using the Sweetbridge platform. The result is that the cost to create hedged risk is much lower and more auditable than today. Furthermore, these rights can be based on goods and services which would not be possible today.

For example, we can tokenize a diverse set of assets, such as equipment, securities, commodities, real estate, receivables, and inventory. Then we can:

1. Take the low-risk value (the “fire sale” value) of each asset,
2. Make sure each asset is held by a custodian (warehouse, pipeline, security custodian, etc.),
3. Add insurance to cover loss of value from fraud, fire, damage, etc.,
4. Add a risk pool based on actuarial risk on things we can’t insure to cover first loss, and
5. Get this rated by a rating agency.

After doing all of the above, it is possible to tokenize the resulting right to the low-risk asset value to create a new asset that is interest bearing and stable which can be carried on the books of a company as cash and is tradable. There is much talk about stable coins in the blockchain community, but there is no need to create a stable coin if we can trade Tier 1 - Class A assets instead because a bank can simply add them to its balance sheet and borrow money from the central bank at central bank rates effectively turning them into fiat.

This is such a powerful concept and can unleash so much trapped value. Because of this, the Sweetbridge platform comes with a built-in protocol to create these assets called BRC<sup>4</sup>.

## Built-in rights

The Sweetbridge platform comes with built-in rights that can be used without modification by adding the proper legal contracts for a jurisdiction. The future product roadmap for Sweetbridge includes additional built-in rights for asset sharing, settlement risk swaps, and rights to revenue on use.

Some of the rights examples we have used are simple for anyone to understand. Some of them are more sophisticated and may require a background in derivatives to fully grasp the implications. Regardless, the tokenization of rights may represent one of the largest opportunities for value creation in this century.

One of these rights, the tokenization of the right to value, could be used to unlock trillions of dollars of value stored in assets today. Another right, the right to lower cost, could be used to create billions of dollars of assets on the balance sheet of major companies while adding network effects to their businesses.

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<sup>4</sup> For more information on BRC, see our “Trusted Tokenized Assets” whitepaper, our Sweetbridge whitepaper, and our [“Transparent yet Private Digital Currency”](#) whitepaper.

Sweetbridge won an award from Lufthansa and SAP for demonstrating how the right to lower cost could be used to transform €1.8B in liabilities from their existing loyalty program into €1.5B of assets — a net change of €3.3B. This was not done by some trick of accounting but by redesigning the nature of the right itself. By replacing a mile, which is a fractional right to a future seat that is consumed when used, with a right to a future discount that is not consumed, we are able to transform the same cost for the airline and the same value to the customer. This creates new value for both the customer and the airline in the form of an asset that is tradable.

This one example is significant, but we do not believe it is the most significant example of how a company's balance sheet could change over time due to tokenizing rights. As you can see from the few examples given in this paper, tokenizing rights spans a wide array of use cases. Companies that implement the tokenization of rights in more than one of their business processes have the greatest opportunity for new value creation and network effect.