Decentralized Ownership, with autonomy

The world of real estate hasn't materially changed in hundreds of years. To buy a house, or any kind of property - typically you must buy all of it. This has enabled banks and other financial services businesses to provide much needed loans and lending services to investors and the house owning market. The Frabric Protocol changes how we understand property ownership. Imagine being able to invest and own any property. Imagine being able to vote on important decisions and affect real change in how your investments grow. Imagine getting the best possible returns on your real estate investment portfolio with best-in-class property management. Imagine Frabric.

Frabric is a protocol that enables decentralized ownership of real world assets, it does this by creating Threads. A Thread is a self contained revenue generating Decentralized Autonomous Organization, or DAO that is capable of communicating and legally owning a physical entity; like real estate!

Anatomy of a Thread

A Thread is essentially a self contained corporation that lives on a blockchain. Threads have a number of different capabilities, but it's primary purpose is to act as a bridge between a corporate entity in the "real world" that contains a given property, and has de-facto ownership over it.

This is key, as it enables all other parts of a Thread to function, and to provide a mechanism for investors to enact real material change on their investments.

Bridge types

In the Frabric Protocol; Threads are able to communicate not only with the underlying assets that they work with, but also Service Providers and Consumers; potentially even other Threads!

This creates a complete network, or a "Fabric" of Threads that are able to communicate and provide each other value in new ways that traditional corporate markets lack.

There are two types of bridges that we'll be discussing here

- Asset Bridge
- Service Bridge

structure of each object

Technical definition of each vehicle

The Asset Bridge

When we create a new Thread with a new property, we need to create an Asset Bridge. To do that, we transport that property into a special kind of corporate entity called an Special Purpose Vehicle, or SPV.

Once inside this SPV, the property is safe and secure - it follows all legal requirements for the jurisdiction that it's in. However this SPV isn't able to interact with the blockchain by itself.

In order to enable communication between the Thread and the SPV; we introduce the concept of a Frabric Proxy.

What's a Frabric Proxy?

A Frabric Proxy is an individual or organization who as a director or officer of a corporation, this individuals sole responsibility is to listen for directives through the threaded bridge communication layer for vote results. Some votes may not require proxy intevention, such as changing the name of the Thread; or adjusting who has permission to invest in the threaded property. However many votes, such as rent increases, major renovations or introducing new service providers may require physical actions on behalf of the token holders.

¿Cuales son los nodos de la red? ¿El canal?

Back to the Asset Bridge

Now we have an understanding of what a Frabric Proxy is we can start to understand a bit more of the communication protocol.

Any action inside of a Smart Contract can emit an event. An Event is a special type of signal that can be listened to from outside observers, such as in our case with our Frabric Proxy. This mechanism allows for communication from blockchain participants, to the Frabric Proxy.

Granularity levels in organizations

However information can be transferred in the other direction. As the Frabric Proxy even if they are not invested in a particular Thread, they have the ability to propose a vote. As with everything else associated with a Thread, the Frabric Proxy may be voted on and changed; however the Frabric Proxy has sole responsibility over ensuring critical information regarding the physical property and the SPV is shared. They also have the sole responsibility to ensure that if a critical decision needs to be made, they can trigger a vote proposal to solicit the feedback they need to make a decision.

Service Bridges serve a similar purpose to Asset Bridges; they convey value across an interface. However unlike Asset Bridges, which transport value between Fiat and $SC; Service Bridges transport value between entities in the Frabric Network, which are denominated entirely in $SC.
These Service Bridges connect Thread's Service Pools, and other Threads - some of which may be Service Providers. Thread tokenholders may vote on creating/severing a bridge between itself and either a service provider or another Thread.
Examples of services might include: daily cleaning / landscaping, rental / tenant management, vendored software, etc.
Examples of streamable partnerships may include: Airbnb Rental agreements, Managed property management, Vending Machine co-revenue, Docked scooter rentals co-revenue.

💡
Transactions at the Service Layer are conveyed entirely using payment streaming protocol like superfluid.finance
Services are defined as a $SC/month rate, and are required to be issued as super tokens.
Transactions and Revenue
Frabric does not use utility tokens; transactions are typically made with a Stablecoin (SC), such as xDAI. When someone wishes to buy into a Thread, they may use the Decentralized Exchange built into all Threads; or they may use an alternative Decentralized Exchange such as uniswap or 1inch. We provide a build in Exchange as our infrastructure is portable, and may be deployed on to other EVM compatible chains that may not have the same existing infrastructure as larger blockchain networks.

Revenue Management
Some Threads might not generate revenue, but many will. To ensure day-to-day functioning of a Threaded Asset, a portion of revenue may be preserved within the SPV. This number may vary abased on the underlying asset and what expenses might look like.
Revenue and value is "stream" based. This makes it easy for Thread owners to control the flow of money, and to ensure that they're always able to pay bills or provide services in predictible ways.
We do this by heavily leveraging the superfluid supertoken protocol,
Revenue or capital is held in 3 distinct "pools" within a thread, each pool is used for a different purpose; funds may be transferred in a one-time or reoccurring basis by vote.
Lets walk through them

This pool contains value denominated in local fiat; depending on the geopolitical jurisdiction that an asset and SPV resides in. The purpose of this Pool is to handle and process revenue generated from the fiat / traditional aspects of the business or property under management; residential or commercial rent, or potentially short term rental revenue all fall under this category. This pool's secondary purpose is to pay for recurring fees and services that interact with service providers not integrated as a Frabric Service Provider.

If investors wish to adjust the size of their Thread's Fiat Pool, they can propose a vote.

If at the end of a Pool cycle, all additional value stored in this pool in excess of the Fiat Pool's budget; will be converted into a Stable coin and transferred into the Thread's Service Pool.
Service Pool
This pool contains value denominated in a Stable Coin, and is owned and managed by the Thread smart contract. This pool programmatically handles all frabric services and revenue generation.

As this pool is managed by the contract, it's autonomous and does not have a custodian.
Revenue can enter the pool in one of two ways; either transferred from the Fiat Pool, or from Frabric Service Consumers. Any Frabric Service Provider fees, either one off or recurring will be deduced from the Service Pool. If a Service Pool does not have sufficient capital to pay for a service a one-time transfer from the Owners Pool to the Frabric Pool will be made (if possible) to pay for the service shortfall.

Owners Pool
The owners pool is what most investors will be interested in; and it acts as a critical connection between Thread participants and any revenue or value generation created by the Thread.
The Owners pool, like the Frabric Pool - live on the blockchain and are denominated in a Stable Coin; however this pool is interactive with investors directly.

Frabric Link
The Frabric Link contract is an automatic bridge that enables local currency which may be obtained by the Threaded Asset from Rent or other Profit Generating Activities; into a Stable Coin that may be used for In-Frabric Activites; such as paying for Frabric Authorized Services; or to dispense dividend payments to token-holders.
In order to facilitate this; each Thread must define Link currency for which the properties jurisdiction views as legal tender. A

property in Canada legally must accept Canadian Dollars (CAD) in exchange for goods and services, which means the Thread which owns this property must define it's Link currency as CAD.
Frabric Link acts as an automatic clearing house for Thread based transactions, providing an on-ramp for Fiat to be exchanged automatically for a stable coin value equivalent, and if there is a need to provide additional funds to a Fiat Pool; convert SC value into Fiat value automatically.
We do this by providing liquidity in both local Fiat currency, and SCs; this enables us to act as a market maker and instantaneous exchange provider for Threads within a particular jurisdiction.

As Stable Coins do not exist for every Fiat currency, we also provide a simple exchange service between $Local → $USD (denominated in a SC such as xDAI). To be able to do this, we partner with leading cryptocurrency exchanges such as Binance, Coinbase, and Kraken to provide automatic mechanisms exchange.

One of the core benefits of blockchain technologies in decentralization and transparency, something that's very hard to achieve in traditional markets. One thing that enables is Trustless voting; or the ability to participate in votes or elections, without necessarily needing to trust any of the other participants who are involved in managing or voting along with you! This is awesome, and it enables the ability to create blockchain contracts where this decentralized voting mechanic has a major influence in how the contract functions; these are called Decentralized Autonomous Organizations, or DAOs.
Every thread is a DAO, and every tokenholder has the ability to propose a vote. This a core component of the value proposition of Frabric Threads - being able to directly influence and impact your investments; regardless of who you are, or how much money you have.
Voting Proposals
Before anyone can vote, or the DAO does anything. Someone needs to create a proposal.
Proposals are special in that there are a few different entities that can propose a vote for a given Thread:
•
Any Token holder of the Thread
•
The Frabric Proxy of the Thread
•
The Custodian of the network (Fractional Finance)
Proposals come in a variety of forms, the Network Custodian can for instance propose a vote to deactivate or pause a Thread in the event of a liquidation; or to propose an upgrade to the contract itself. Frabric Proxies and Tokenholders are able to propose any other kind of vote, however they have different responsibilities.

The Frabric Proxy is responsible for the day-to-day functioning and well-being of the property and SPV it resides in; if there are any events that require direction on, say a law change or a sudden change in the material value or state of the asset; they may trigger a "snap vote".
Token holders are responsible for more longer term decisions; such as which kinds of services to use, what % of the budget should be allocated where, and potentially what power or utility their Thread's token provides; this could be something as simple as changing the dividend accretion rate; to temporarily pausing token trading outside of the current pool of owners.
To talk specifically, lets look at the types of vote proposals that can be made:
Normal Proposal types
These are proposals that can be made by any tokenholder; however they could also be proposed by the Frabric Proxy as well:
Paper Proposal
Structural Proposal
Service Proposal
Special Proposal Types
Upgrade Proposals
Network Change Proposal
Buyout proposal
How to propose a vote
To propose a vote for a particular Thread; you must be one of the following:
•
A Tokenholder for the Thread
•
The Frabric Proxy for the Thread
•
Fractional Finance
In any case, the voting mechanism is much the same. Programmatically there is a function associated with each contract called createProposal() , depending on the type of proposal; you may be required to provide additional components.

Threads in the Frabric Network are fantastic and fully autonomous; however properties and assets don't exist in a vacuum. Rental arrangements have to be made, snow needs to be removed; and trees/shrubs trimmed; these are just some things that need to be handled on a regular basis to keep your property in top working order.
Service Providers act as an interface between companies who may offer services to Threads and would prefer to work directly with thread owners, rather than property management companies.

Every Service Provider is carefully vetted by Fractional Finance in advance to being admitted and accepted into the Frabric Network.

To ensure the quality and effectiveness of all service providers in the network, FF reserves the right to sanction and potentially remove Service Providers from the network for bad behavior and violations of the community guidelines.
Threads, being self-governing, autonomous agents may disagree with our "removal" and continue to work with sanctioned Service Providers; however the protections and guarantees put in place by FF won't be available for unapproved SPs.
Transactions between Service Providers and Threads are handled by the Service Bridge. The exact mechanics are TBD.
Services may be initiated or terminated at any time, however some service providers may require a deposit / have more complex termination conditions.
Fees are charged on Service Provider transactions; and are automatically deducted. Taxes is recorded and automatically collected, along with a small 1% Network Stability fee paid into the Fractional DAO.

To provide the best services possible on the launch of the Frabric Network; and also ongoing into the future - Fractional Finance will provide it's own service providers for convenient default support.
Default Service Providers have opt-out support, which means by default will be active on all newly launched Threads.
These services are the following:

- Fractional Management
- Fractional Insurance
- Fractional Tax Management

Beyond the opt-out mechanism and being active by default, there are no additional differences attributed to Fractional Service Providers vs. third party service providers.

Readable
voting → with engineer
Frabric protocol
Anatomy of colony
Threads
MVP paper

Describe each
On top ERC
Ethereum based
Premined token

DAO → real life corporation
Token: Gives you certain right
Economic value of voting
→ 30% voting the more %
Voting power for each voter.

voting power model

Communities. Elector within your DAO

Repito community DAO → an eventual go

DAO → just one asset

service providers

Deployed in Ethereum, written in Solidity

Thread → collection of contracts

1. contract DAO

The DAO has it exchange

communication layer

Asset contract

Asset bridge → To transfer value

Exchange takes a fee for every transaction

service are transaction

A thread

fiat → money stored by the corporation

fiat pool → la bolsa

Fabric custodian

Every service

moloch dao superfluid

DEX

DAOS

Superfluid finance:

DAG

technical description of the network components

voting → math

Revenue → streams

security — Leveraging a lot of things

The things that makes us different.

First version: August 31st

complete version: Late November.

Break it down into sessions

Novel
unique

Focused paper

Ethereum based application