Iterative User Research

Multi App Staking - Usability Testing

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Agenda

- Methodology

- Usability Tests - Methodology

- Findings - Page by Page

- Appendix

  - Interview Script
  - Figma Prototype 1 here
  - Figma Prototype 2 here

Design Research

Design Research helps teams build the right thing, the right way.

Explorative Design
helps building the *right thing*.

Iterative Design
helps building the *thing right*.

Methodology

In our Design Process, Coverage Pool is in the **Synthesis Step**. We have prototyped and tested our solutions to the users. We have gathered feedback and found what we need to change and what we need to add.

Next step - Go back to the drawing board, find solutions based on the findings and test again.
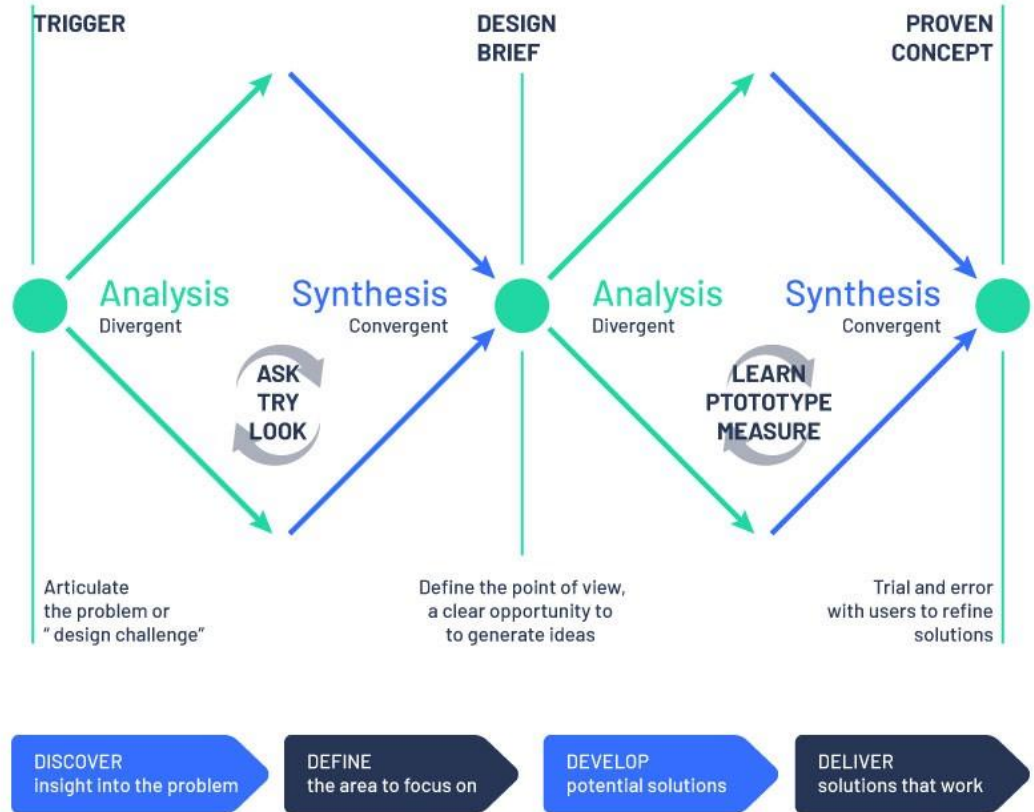
Study Goals

We tested the Staking Flow alongside with the Multiple Application Authorization Flow for **existing stakers** and **new stakers**.

The Staking flow has never been tested out before so it is an opportunity to bring improvements to this flow as well since the Stakers are the backbone of our network.

Additional Context:

- PRE application was believed it needs authorization, it turned out it's already authorized for existing stakers.
- Existing Stakers who have set an Authorizer Address different from the Owner Address are required to take a separate route to authorize their stakes.(did not encounter nay so far)

Study Goals

- Map out thoughts and feelings about the Staking Process and the Staking Requirements
- **Identify the possible issues and misalignments with the users' mental models (turned out to be extremely present)**
- Uncover the friction points in the Staking and MAS User Journey
- Identify team's blind spots on Staking and MAS
- Probe our assumptions with real data

Research Methods and Users

- We interviewed **7 users**

- Qualified users were individuals who **were stakers for different PoS networks and were running a node. Some of them were running nodes for Threshold Network.**

- **50 minutes** video calls

- We tried to test two different cohorts:
  1. Existing Stakers - Figma Clickable Prototype used for the test [here](#)
  2. New Stakers - Figma Clickable Prototype used for the test [here](#)

Research Methods and Users

Demographics
 - are not extremely important only the tech background and tech profile

Staking Experience, Risk Profiling and Motivations
 - we wanted to find what is the common behaviour, the fears, the needs, of the people who are stakers for different networks. We wanted to know what shapes their behaviours and what are the reasons to cease using a protocol.

Prototype Walkthrough
 - This exercise involved thinking out loud technique in which users had to go through both the staking, authorizing and deauthorizing flows and to describe what they see. We wanted to check the How it works page as well but we did not have enough time for the test without running into interview fatigue.

We used a clickable prototype made in Figma.

Data Capture and Analysis

	Questions	User 1	User 2
1	**Questions**	User 1	User 2
4	**Background**		
5		Austin, he is theegg on Threshold discord server. Is a very active member and vocal part of the community. He frequently attends guild calls.	Hadi Maleh - UX designer in web3, 5 years in business development before this. He lives in Turkey originally from Damascus. Collaborates with many DAOs, contributes to decentralized web.
6		He was hired to run a Threshold Network node. Has professional and personal interest in Keep and in Threshold.	His experience in blockchain in 2018 he was investing in Ethereum because everybody was doing it, and from that time he started actually learning about it and loves the mission. He says he has a 4/5 knowledge of blockchain.
8	**Staker Experience**		
10	Could you please explain to me in your own words what does a staker mean?		He says there is many kinds of staking. There is "on chain staking" which is providing security to the netowrk. There is "defi staking" which is yield farming staking which is keeping an asset inside a vault and earning yields on this.
11	When did you first start being a staking for a network?	He's new to being hired to take care of other people's nodes, he started in February.	
12	Did you need to run a node for the network?		No I did not need to run a node for any of these networks.
13	Do you stake with a staking provider?		Was making a distinction between service provider and staking provider.
14	How do you choose to stake for x?		"The level of centralization, the founders - who the founders are" "what kind of a project will be built, what kind of partnerships they are building" He took a very long time to know how to read a white paper. Some projects build infographics and videos and make it really easy to understand the initial idea. Some projects have a very steep learning curve. He says "For example I want to discover The Graph but it is very complicated ... I don't have the time. But I know that it is necessary to discover it."
15	Which network are you staker/node operator for?	Mostly Threshold Network. He is familiar with Keep.	Lido (i think its this?) staking your assets and decentralized over many operators. He does liquidity staking. He does Polkadot he is a network security staker. Helium network he's a native staker for this securing the network with validators. Also Solana.
16	Why did you become stakers for x?		I'm not a trader Im a long term investor and he wants to contribute to the network, he believes that in the future it will be very good. He knows that the prices may go down to near zero, but believes in the long term it will be good. "I don't have the time to look through the details of every proposal" he thinks it is very complicated to look through and make the right decision about it. He says there can be a lot of centralization, that there is 60-80 of asset distribution is centralized amongst one holder.
17		You are paid a reward fee based off of your performance providing node services. He says has not interacted with the Threshold Dashboard but says that is 100% part of his job. Professionally he is here to generate rewards. Personally he finds that he enjoys the community and loves what we are...	When asked about what is his process for staking. He opens it up once a month and checks whether...

	Questions	User 1
1	**Questions**	User 1
4	**Background**	
5		Hypnotortoise was introduced to crypto 2013 with Bitcoin, then ethereum, then defi products. He was a NuCypher staker, familiar with the merge between keep and nucypher. Thousands of complex projects in the space and tries to keep his time on those projects that interest him, such as NuCypher.
6		He has good knowledge of being a devops
8	**Staker Experience**	
10	Are you familiar with the term staker?	He says "Yes"
11	Could you please explain to me in your own words what does that mean?	"A staker is a function in a network mostly run by humans not robots that is providing a service for a network... try to verify work hopefully mostly honestly work ... what should be recorded as the right state in the network. Now it is more complex, Threshold staking means you provide a service with Proxy Re Encryption"
12	How do you go about deciding and choosing which network do you want to stake for?	"Mostly depends on the philosophy and the motivation of the people around the project ... that there's a real drive to some kind of positive change"
13	Could you please describe to me what is the job of a staker?	"Being honest, following the protocol for whatever you are trying to do with your stake, don't cheat, maintain your uptime, try to follow the updates and be up to date with your clients, keeping an eye on your stake resource if you have to pay gas that you don't run out of gas for it."
14	When did you first start being a staker?	Started with NuCypher, originally delegated and then took it out and ran his own node. He was curious to see how complex it is to run his own node and saw from the documentation that it was quite easy to set up. Also the maintenance was very low with the staking service. You can do it yourself. Helping the network to decentralize so its not everyone on one server.
15	Which network are you staker/node operator for?	Staker for the Eth 2.0 network, Threshold is the other
16	Why did you become a staker for Threshold?	
17	What is the process to become a staker for Threshold ?	Had to do some part directly from Etherscan (delegation for voting). He migrated tokens from NuCypher using the NuCypher. Followed guides from the Threshold documentation side. There was an issue with an old configuration but this was explained via the Discord channel so he could easily migrate.
18	What would you change from Threshold staking process?	He says if he had no idea of doing set up he would find it more challenging. He has good knowledge of being a devops. He thinks nobody was left out of the announcements in the communications channel. The support took some time for the configuration issue he had. Felt that all stakers had to figure out the migration process themselves.
19	What do you like the most from Threshold staking process?	He would like it to be that the payments are not that harsh, a small penalty, gives a new staker some breathing room with offline time, keeping a server 100% up is quite difficult some cases, if you do it yourself 100% uptime can be quite challenging.
20	What keeps you up at night as a staker?	...

Deep Learnings 🧠

Research Methods and Users

The people we talked with and who have an active stake in one or multiple networks are people comfortable with a higher amount of risk.

Most of them consider themselves as " a long term investor" and are restful with the idea of having a considerable amount of funds blocked or locked in the protocol. They are all well aware that they cannot withdraw their money anytime they please and also they state that it is "reasonable" since they are securing the network.

They know very well the risks of slashing and downtime, but even so they still accept the risks and continue staking and "having skin in the game". Some of them consider that staking is not only an avenue for revenue and growing their portfolio, but also a way of supporting the protocol and helping it evolve.

Research Methods and Users

There were some distinct patterns found among the stakers when it comes to choosing a protocol.

- The technology and the idea behind the technology - many of the participants stated that for them the technology and what it's intended to build with the technology is the most important thing when choosing a network. Some of them even say that this is more important than the actual rewards.

- The OG factor and the early adopter factor - some of them are more prone to choose to stake for a network if they have the opportunity to be one of the first people, to have access to the protocol from the start. This aspect makes them feel they were part of the project "before it was cool" and before it was truly proven to work perfectly. On the other hand being one of the first users means much much more revenue.

Research Methods and Users

There were some distinct patterns found among the stakers when it comes to choosing a protocol.

- Marketing and awareness - these two factors play an incredibly important role in the decision making process of users. It's very important for a user to find out about a network, what it stands for and what is the tech it develops. Along this, marketing plays a sine qua non role when it comes to distilling complex protocol technology into user friendly and user readable information. Not only the stories and anecdotes about what the tech could be applied are important but also easily readable and understandable information layout like: infographics, diagrams, videos, podcast presence, and conference evangelism.

- The team - the team and the leadership of the team, the ethics and the way they stir the ship is highly important for some users. Some of them even stated that they would stop being stakers for different projects if they felt like the ethics and values and goals are not matched anymore by the project's values and goals.

Research Methods and Users

There were some distinct patterns found among the stakers when it comes to choosing a protocol.

- Rewards - most of the participants seem to be weighing in the possibility of staking on a network if the cost of running a node, possible slashing events for downtime would in the end return enough revenue so they can continue to stake and gain some money. They are very much averse of a zero sum game type of situation. This seems to be also a reason to stop staking for a protocol.

Research Methods and Users

"Mostly depends on the philosophy and the motivation of the people around the project ... that there's a real drive to some kind of positive change"

Research Methods and Users

When asked about the reasons they would stop being stakers for the networks they are securing currently the users said:

- the project would stagnate, there would not be any updates for a long period of time and the team would not be transparent about it.

- Severe slashing - big slashing not just a small penalty, slashing for different reasons that they could not address and troubleshoot. Some of them say talk about slashin/rewards rate and state that if the slashing is higher than the reward then they would not run a node anymore. Behaviour noted: most of the participants do not have knowledge of the different grades of slashing, it seems like they are talking about this topic and slashing is used as a blanket term for anything that involves a punishable event being it downtime or collusion.

-
- We need to explain slashing very well

Research Methods and Users

When asked about the reasons they would stop being stakers for the networks they are securing currently the users said:

- We need to explain slashing very well because there is a tell-tale of the Keep Slashing which seems to be some sort of a Boogie Man. Users who haven't been Keep stakers have heard the way the keep stakers used to be slashed for misbehaving even though they weren't accountable, due to our previous system of 3. Right now stakers from the NuCypher connection are apprehensive when it comes to tBTCv2 expecting to have the same slashing system and the same staking system.

"I would advise my clients to run a PRE node and then move their money to a liquidity pool as soon as TBTC v2 launches."

Research Methods and Users

"Staking on Threshold is the hardest thing I ever staked for, is even harder than ETH2"

Participant 6

"I would not recommend Threshold to my clients. Is the small 5% gain worth the risk of potentially losing part of my stake?"

Participant 1

Research Methods and Users

"Did the back of the napkin math, and you have to stake 1 million T before you hit the break even point."

Participant 1

Research Methods and Users

Some users consider Threshold Staking one of the most difficult projects they have interacted with.

"There are three addresses and you have to understand the interaction between them and the relationship between them and what they do, so it's not easy at all."

Most users who were Threshold stakers were beforehand NuCypher stakers and some of them are quite afraid of the tBTC slashing. Actually most of the fear is produced by slashing. The stakers think that downtime should not be slashed but it should be considered a small penalty.

On the other hand there are a lot of former Keep stakers who did not roll in their stakes yet. Some of them had difficulties and the staking providers did not know very well how to do this, or they had ETH bonded stakes, some of them are unsure if they should stake on Threshold.

Research Methods and Users

I believe there is a lot of uncertainty going around how staking works, the rewards, the penalties, which I assume was also supported but the dashboard which wasn't showcasing any type of rewards or modalities of rewards. Most of the stakers were not able to see their rewards up until recently.

There is also the aspect of the high complexity of the system.

"*I would like the punishments not to be that harsh, a small penalty, gives a new staker some breathing room with offline time, keeping a server 100% up is quite difficult some cases, if you do it yourself 100% uptime can be quite challenging.*" Participant 2
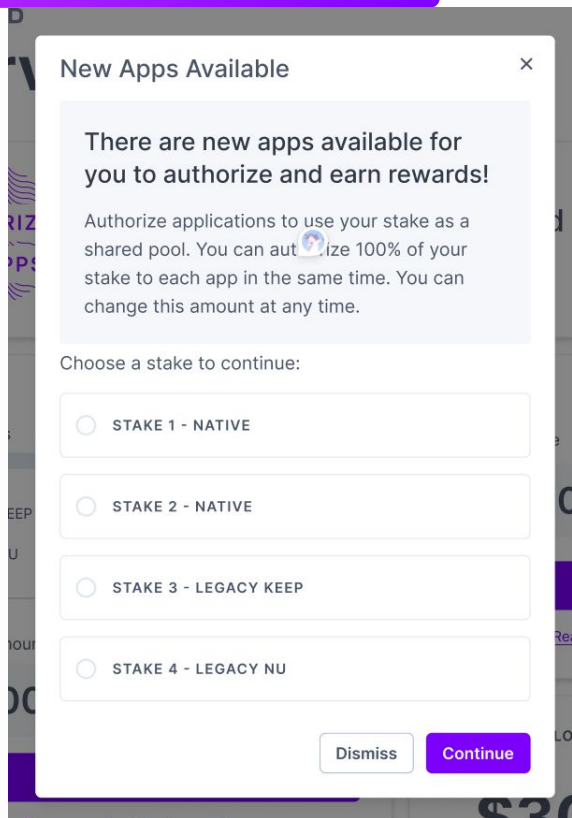
Screen by Screen Walkthrough

Findings and Recommendations

FINDING
The Threshold existing stakers were confused by the fact that they can have more stakes than one. They could not wrap their heads around how can it be possible to have more than one stake.

This means that most of our stakers have only one stake and their mental model is to increase or decrease the stake that they have.

Right now our dApp is designed around the idea that is common behavior to have more than one stake but this might be actually wrong.

RECOMMENDATION
There might be needed a few shape ups for the product. More investigation is needed - data and possibly a survey sent to the stakers.

Findings and Recommendations

TIMELINE CARD

Stake Tokens (Step 1)

Before you continue

Please review the staking timeline below for a handy overview of the staking requirements.

Staking Timeline

STEP 1
STAKE TOKENS
Enter the Provider, Beneficiary, and Authorizer addresses. These will be automatically set to your wallet address. If you want to use a Staking Provider, here is a list.

STEP 2
AUTHORIZE APPS
You can authorize 100% of your stake for each app. This amount can be changed at any time.

STEP 3
SET UP NODE
Set up and run a node for any of the applications authorized.

Read more about the staking contract.

Cancel   Continue

FINDING
Some of the participants got very fast over this screen and none of them realized they need to run a node until later.

RECOMMENDATION
We need to be more upfront with the requirement of running a node for the new applications. We might need to add some extra information here.

FINDING
Most of the participants liked the Staking Provider list but didn't really understand what's the deal with the three addresses.

RECOMMENDATION
We should add hyperlinks to the Provider, Beneficiary and Authorizer addresses that could take the users either to the How it works page or the Documentation, so the users can learn more.

Findings and Recommendations

ADDRESSES MODAL

FINDING

Users liked that they had their fields pre-filled with their wallet addresses.

FINDING

The `Provider Address` explanatory text has performed very poorly out of all of the three.

RECOMMENDATION

This is an element that is really hard to grasp for most of the users, especially the users who are new to the protocol. The Provider Address scored the lowest when it comes to understandability. The descriptor under it does the poorest job in explaining what is happening there. We need to make them understand that this address is the node's address and if they are not planning to run their own node then this is usually provided by the Staking Provider. I think we should also mention to them that these addresses cannot be changed afterwards.

Findings and Recommendations

STEP 2
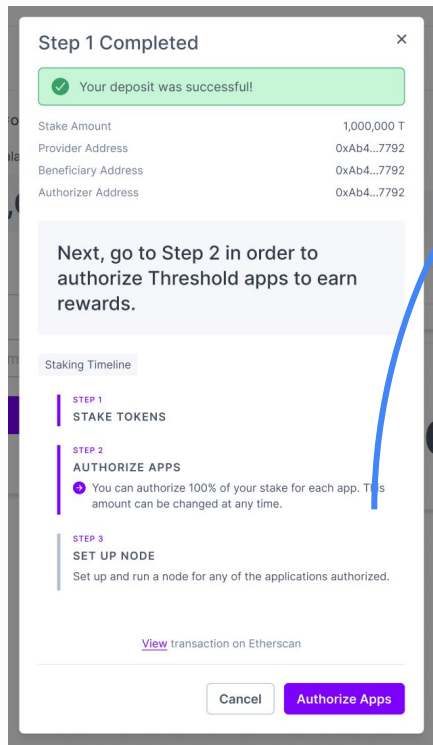
FINDING
Users do not understand and/or are being confused by the fact that they can authorize 100% to all of the apps simultaneously.

We are fighting with the user's mental modal which is " I have 100% out of which I am allocating 30% here, 40% here and 30%"

RECOMMENDATION
We also need to find a way to clearly explain to them how is this possible. This seems to be an entirely new staking behavior and most of the users have never encountered it before which means that we will need to do a lot of heavy lifting in the education side of the things.

I believe this should be explained very well and with the aid of visual support in the HIW page, in the documentation, marketing, tutorials, video tutorials, everywhere we can. A simple diagram might go a long way. We might even add the diagram somewhere in the flow.

Findings and Recommendations

STEP 2

FINDING

After observing the users behaviours two behaviours were noted:
- max authorization "I want to support the network" "I just want to set up everything at 100% and get over with it"
- min authorization "I usually start with minimum and then after a while if things are okay I increase it"

These two behaviours rendered our Risk Profile wizard useless.

FINDING

Participants asked for APR/Rewards rates per application and for slashing rates per application.

FINDING

Some participants did not manage to understand that Random Beacon and tBTC were applications.

FINDING

We've noted discoverability problems for the Random Beacon.

Findings and Recommendations

Authorize Apps (Step 2)

Please authorize Threshold apps to use your stake to earn rewards.

You can authorize 100% of your stake to all the apps and change this at any time.

Total Staked Balance   1,000,000.00 T

☑ TBTC APP ⓘ   100%
ⓘ APR · 10%   ⓘ Slashing · <1%

Authorized Amount   Remaining Balance: 500,000 T

1,000,000   **Authorize All**

Minimum 40,000 T for TBTC

☑ RANDOM BEACON APP ⓘ   100%%
ⓘ APR · 10%   ⓘ Slashing · <1%

Authorized Amount   Remaining Balance: 500,000 T

1,000,000   **Authorize All**

Minimum 40,000 T for Random Beacon

PRE   AUTHORIZATION NOT REQUIRED

Cancel   **Authorize Selected Apps**

STEP 2

RECOMMENDATION

Remove the wizard and pre-fill and pre-check to 100% all of the apps. This should help the users understand that they can authorize 100% to all of the apps.

On the other hand the discoverability issues are solved because both apps can be seen at a glance.

Signifiers will also help - "100%" text,checkmarks and a stroke to the card.

APRs and slashing rates should also be added in the apps cards. "App" after each name of the app so users can understand easier.

The "minimum" from the helper text can become a link button which will input the minimum amount needed to authorize each app.

Findings and Recommendations

Step 2 Completed

✓ Your TBTC authorization was successful!

Staking Provider   0xAb4...7792
TBTC Authorization Amount   500,000 T (50%)

You can authorize more apps, or continue to Step 3 to set up nodes.

You can adjust the authorization amount at any time from the Staking page.

Staking Timeline

STEP 1
STAKE TOKENS

STEP 2
AUTHORIZE APPS

STEP 3
SET UP NODE
→ Set up and run a node for any of the applications authorized.

View transaction on Etherscan

Set Up Node ↗   Authorize Other Apps

FINDING
Some participants thought that Set up Node button will initiate the Setting up node dialog.

RECOMMENDATION
Change the CTA to "Learn..." or "Read about.."
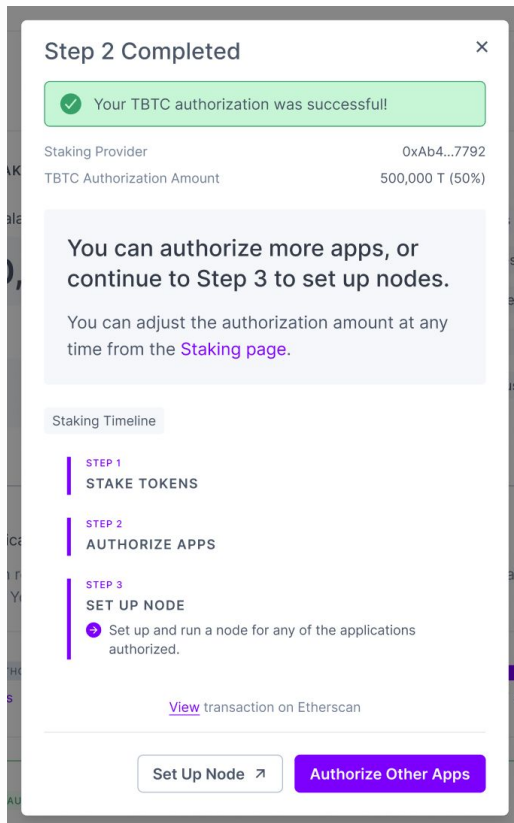
Findings and Recommendations

EXPANDED VIEW

FINDING

None of the participants seen the text about the authorization and the requirements.

RECOMMENDATION

This is an important text, we need to add more emphasis to it.

FINDING

When asked to interact with the apps, many of the users were distracted by the overview information of the stake and sometimes a bit confused. Due to steep learning curve, some users would wander a while until finding what they were looking for. While observing the users we realized the most used part of this card will be the applications.

Findings and Recommendation

EXPANDED VIEW

🔴 CRITICAL CHANGE

RECOMMENDATION

This is an important text, we need to add more emphasis to it.

For better discoverability and ease of use it will be better to divide the information into two separate categories. Apps and Overview.

Whenever a user will click on "Configure Apps"/"Manage Apps" we will have an anchor for the apps section.

Also I believe having the node information in the app card will improve the link between the node status and the app.

APR rates and slashing rates per app to be added in the cards.

To add more hints headers and titles will be added.

How it Works   **Staking**

Stake Overview   **Authorize Applications**

Authorize Applications

ⓘ In order to earn rewards, please authorize Threshold apps to use your stake. Note that you can authorize 100% of your stake for all of the apps. You can change this amount at any time.

✓ TBTC APP - 50% ⓘ AUTHORIZED   Increase   Decrease
ⓘ APR - 10%   ⓘ Slashing - <1%

Total Authorized Balance

500,000.00 T   Node Status   ⚠ Missing Node. Docs ↗

Increase Amount   Remaining Balance: 500,000 T

Enter amount   Authorize All

Authorize Increase

☑ RANDOM BEACON APP - 100% ⓘ   Increase   Decrease
ⓘ APR - 10%   ⓘ Slashing - <1%

Amount   Balance: 1,000,000 T

1,000,000   Authorize All

Minimum 40,000 T for Random Beacon

Authorize TBTC

PRE APP ⓘ   AUTHORIZATION NOT REQUIRED
ⓘ APR - 10%   ⓘ Slashing - <1%

Authorize Selected Apps

Findings and Recommendation

🔴 CRITICAL CHANGE

RECOMMENDATION

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Findings and Recommendation

STAKING PAGE

FINDING
When asked to authorize another stake most of the participants had difficulties finding the "Configure Stake button". Most of them didn't even realized that the staking card is where they needed to look up for. Some of them kept on clicking on the "Stake" button.

Findings and Recommendations

STAKING PAGE   🔴 CRITICAL CHANGE

RECOMMENDATION

There are two routes that we can take in order to improve the usability of the product.

First of all for discoverability purposes I recommend to dig up the applications statuses and display them in the staking card. Change the call the CTA from "Configure Stake" to "Configure Apps" or "Manage Apps" in order for users to find it easily.

Findings and Recommendations

🔴 CRITICAL CHANGE

RECOMMENDATION

A more daring route but probably a better one in terms of discoverability might be to remove the Stake card for new stakes and replace it with the Staking Card. This proposition is based on the observation that many of the stakers do not really have more than 1 stake nor do they have the knowledge of being able to have more than one stake.

This assumption was fact checked with Rafal, it turns out only 15 owners have more than 1 stake so we should definitely design for the common user and go with this route.

Findings and Recommendations

TBTC AUTHORIZED
How it Works

Total Authorized Balance

1,000,000.00 T

Increase **Decrease**

100%
out of 1,000,000 T available

Decrease Amount

Authorized Balance: 500,000 T

1,000,000

Deauthorize All

Deauthorize

RANDOM BEACON AUTHORIZED
How it Works

Total Authorized Balance

500,000.00 T

Increase Decrease

50%
out of 1,000,000 T available

Increase Amount

Remaining Balance: 500,000 T

Enter amount
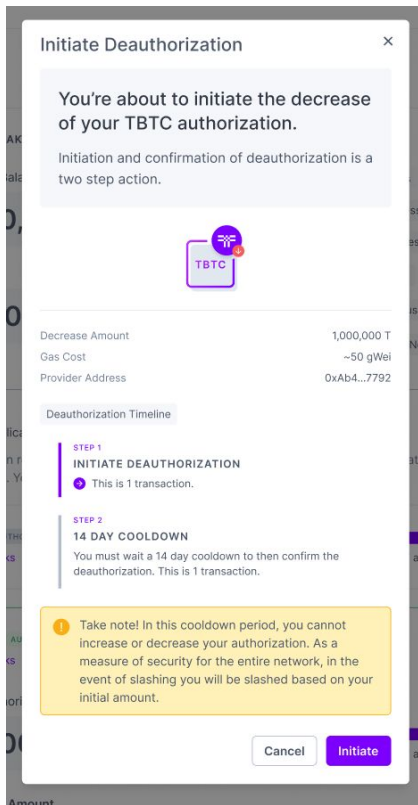
Authorize All

Authorize Increase

FINDING
Users didn't have any issues with increasing and decreasing the authorization for the applications. These interactions were very intuitive and worked perfectly.

Findings and Recommendations

FINDING

Most of the participants were comfortable with the decrease and deauthorization requirements and perks.

"Makes sense to me" was the usual reaction.

RECOMMENDATION

We aren't mentioning anywhere the cooldown apart from the deauthorization flow, so we should add the deauthorization timeline in the How it works page as well.

Findings and Recommendations
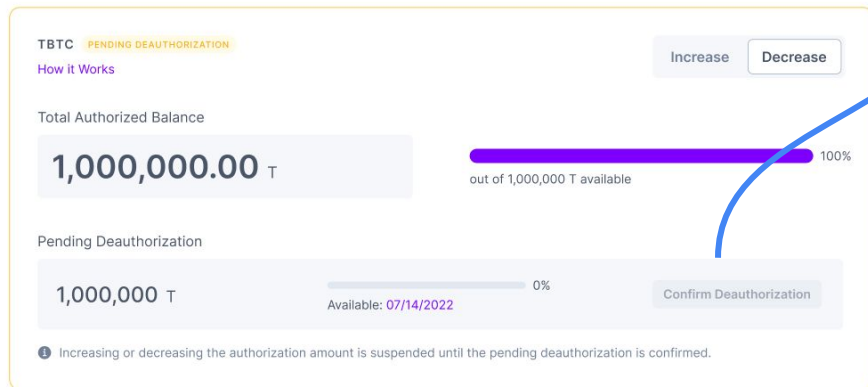
FINDING
Participants weren't bothered about the fact that they are unable to increase/decrease during a pending deauthorization but they were concerned with the fact that they could forget to come back and confirm deauthorization and complete the process.

RECOMMENDATION
Bring the Deuathorization dialog as a widget on the Dashboard overview. Add a "Add to Calendar" feature.

Deauthorization pending widget on the Staking Page should be present as well.

Findings and Recommendations

RECOMMENDATION

Swap order between Legacy and Native Stake.
Add the Unstaking Timeline as well and link it to the Deauthorization Timeline.

Add better explanations about the 3 Addresses.

Findings and Recommendations

RECOMMENDATION

We need to explain the authorization process and the deauthorization process + the timeline.

We need to educate our users about the 100% authorization for all of the apps in the same time so I recommend we focus on diagrams and infographics.

We also need to add real text for the node running and APR and slashing information for each app.

A good idea would be to explain what is the usecase for the applications and how they actually work.

Findings and Recommendations

RECOMMENDATION
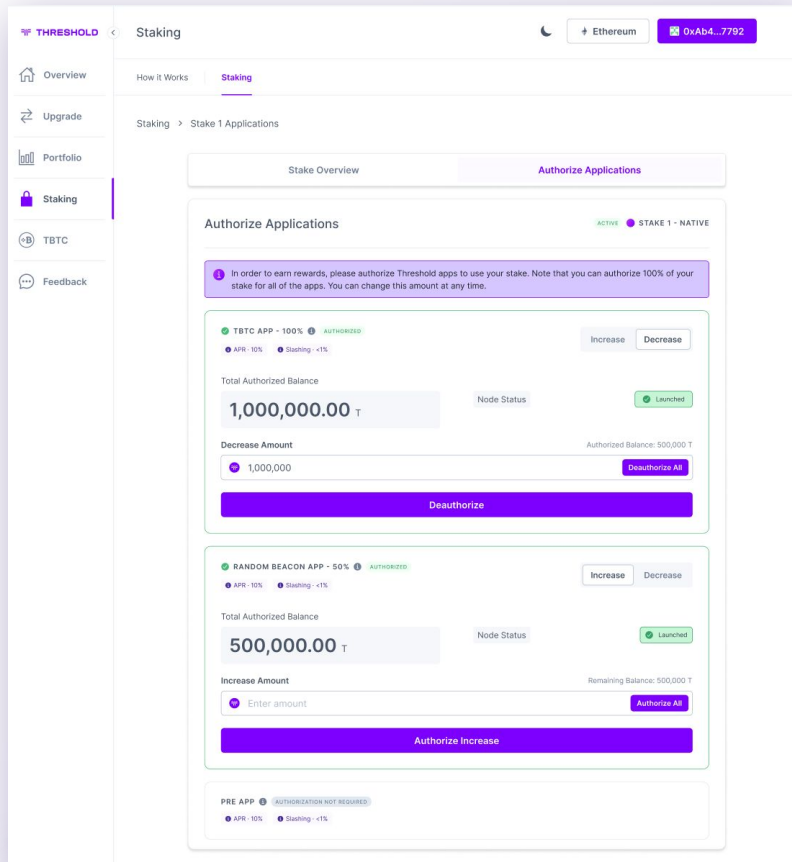Information about Node Running, why we advise for the use of staking providers.

We should also mention here the Provider Address that is given by the Staking Provider in the event they decide to take this route.

What's Next

Following this iterative user study the next action will be taken:

- Include the findings in the new design iteration of the MAS dApp

- Run a set of unmoderated targeted Usability Tests

- Staker Survey

- Prioritization workshop

Love your users!