Foreword

Welcome to our decentralized application distribution platform for MetaMask Snap, which you might more familiarly think of as an app store. This guide will help you navigate the platform, understand its features, and engage with its community-driven ecosystem.

Platform Overview

Our platform offers a new way to discover and ensure the safety of apps, moving away from centralized control to a system powered by the collective input of its users, developers, auditors, and security experts.

Key Features

- Trust Signals: Users can express trust or distrust in other users and Snaps, influencing their reputation within the platform.
- Reputation Graph: These signals feed into a reputation graph, which helps map the trustworthiness of users and Snaps.
- Reputation Scores: Using the EigenTrust algorithm, the platform calculates users reputation scores from the graph. The calculation of these scores is transparent, verifiable and adjustable by the community.
- Safety Identification: The system aims to help users identify safe and potentially harmful Snaps, with effectiveness improving as community engagement increases.

Your Participation

Your feedback and participation are crucial. By using the platform and sharing your experiences in this form, you contribute to a secure and decentralized app ecosystem.

For further details and support, please refer to the rest of this guide and join our Telegram group.

User Guide

💡This is an opportunity for users to **build reputation as a software security expert (whitehat) or software developer**, based on peer-to-peer trust and vouching. This reputation can be useful across web3 apps and marketplaces.

For Metamask Snaps, we're going to utilize a user's reputation as a software security expert or auditor to create a community reputation system for Snaps. This will help identify safe and malicious snaps, which will create enormous value for the Metamask ecosystem, and in general benefit the software security community.

💡We invite you to **build your reputation** in an open and permissionless way.

First, we encourage you to reach out to other **security experts and request for endorsements** from them. The more you get endorsed for your software security skills by other security experts, the more you accrue a reputation as a White Hat and community contributor.

At the same time, you can **start endorsing other software security experts**. This will help them build reputation via you vouching for them. You can also report a malicious actor or any blackhat. Your reputation will play a key role in identifying and reducing the impact of any blackhat activity.

Next, we invite you to **Endorse or Report Snaps based on your good judgment**. This will help generate a community sentiment score for Snaps, making it safer for users to decide whether they should install and use Snaps.

💡 Let's build a reputation graph based on high-quality attestations. **A high number of attestations** will help build a robust reputation graph. **High quality** of attestations is important to help the graph deliver higher accuracy and dependability in the User and Snap reputation scores. It's important to note that the context of these attestations is to build a reputation graph for software security experts, which will enable a reputation graph for Snaps. It won't help if I endorse a good friend who doesn't have any software security skills.

💡 Feeling you don't have enough information to endorse or report a user or snap? Don't worry, this is a prototype. Your attestations won't affect existing live Snaps on the Snaps directory, feel free to use your best judgment to issue attestations.

How to Participate

Here's a list of things to do:

1. **Connect your wallet**

💡 You will be only signing messages, without signing transactions (signed typed data structure-EIP712).

2. **Discover and attest users**
   - **View any User's profile** by entering their public address or ENS in the Search Bar
   - Click on **Endorse if you trust a user**. Upon clicking the button, you'll see the following options of their entrusted skills:
     - Software development - If you think that they are a good software developer;
     - Software security - If you trust their ability to audit or review security of software.
   - Click on **Report if you distrust a user**. Upon clicking the button, you'll see the following options to mark them as malicious specifying a reason:
     - Scamming.
     - Hacking
     - Harassment
     - Disinformation
     - Other

3. **Invite others to endorse you**
   - You can share a message within your network of software security experts or software developers, asking them to endorse you.
   - Sample message: "I'm supporting MetaMask in testing the prototype of a decentralized trust and reputation system for Snaps. My review of Snaps might count more if more trustworthy users endorse my skills. If you think I have good 1) software development skills or 2) software security assessment skills, come endorse me here (hyperlink of your profile page). Thanks! "

4. **Discover and Review Snaps**.
   - **View a Snap profile:** Click on a Snap to see the Snap details page
   - Endorse a Snap: upon clicking **ENDORSE**, you will be prompted to endorse the Snap with a reason:
     - Good user experience
     - Useful
     - Seems secure

     Choose one or any more of the above properties and sign to endorse.

- Report a Snap: upon clicking **REPORT**, you will be prompted to report the Snap with a reason:
    - Scam
    - Vulnerable

      Choose any one or more of the above properties and sign to endorse.

5. **View your Profile** by clicking on your connected address button on the top right
    - You can view which Snaps you have Endorsed or Reported
    - You can view which Users you have Endorsed or Reported

Q&A

1. **Where is the data being stored in this prototype? How will it be managed in the future production-ready system?**

   Right now, we're using an off-chain registry for this experiment. You can find the detailed spec in this CAIP. After the experiment, we will transition to an open, verifiable data storage layer for storing the attestations and trust computer results. The compute will also be easily verifiable.

2. **I already see that my profile has a badge, what does it mean? If I don't have badges, how do I get them?**

   If you have a Highly Trusted or Reported badge, it means that someone might have issued you some attestations and the Trust computer has generated reputation badges based on these attestations.

   If you don't have a Badge, you'll have to wait to get attestations from other Highly Trusted users.

3. **How does my reputation or badge affect my Report/Endorse actions?**

   If I am a Highly Trusted user, my Endorse or Report attestations will carry more weight. If I am a Reported user, my opinion won't matter much. If I don't have a Highly Trusted badge, my opinion will still matter, but it won't be enough alone to modify the reputation of the user or snap that I want to attest.

4. **Is there a quantitative score for a Snap? When will that be shown? How is that calculated?**

   A Snap does get a score from the Trust computer and it is used in calculating the community sentiment badge for a Snap. It is calculated using EigenTrust. It is accessible to anyone, but for simplicity purposes, it is not shown on the experimental front-end.

5. **Can I change my attestation for a User or Snap?**

   Yes, you can update your attestation any time, and the updated attestation will be used in the trust computation.

6. **A user is shown as a reported user even if only reported by one other user? When will a user be shown “reported”?**

   For this experiment, If a User is Reported by a 'Highly Trusted' User, they will have a reported badge.

7. **Is there a quantitative score for a user? When will that be shown? How is that calculated?**

A User gets a score from the Trust computer and it is used in calculating the User badge. It is calculated using EigenTrust. It is accessible to anyone, but for simplicity purposes, it is not shown on the experimental front end.

8. **How do I look up an address to see if it is an existing user in the system?**

   You can search for any address/ENS name in the Search bar, Or you can modify the Profile URL, replace the address by the desired user profile you want to see "https://metamask.github.io/permissionless-snaps-directory/dev/account/?address=0x17FA0A61bf1719D12C08c61F211A063a58267A19"

9. **What benefits do I get if I have these badges?**

   First of all, you are building a valuable white hat or community reputation in one of the most trusted communities in web3. This reputation will go a long way and become interoperable in other systems going forward. We will also issue participation and reputation NFTs as a token of recognition for helping us in this experiment.

10. **What is the relationship between receiving endorsements and getting the badges?**

    If you are endorsed by trustworthy users (with high reputation scores), you may get badges as a result. You can read the full details of this in the algorithm implementation.

11. **Will I be able to see the address of the account that provides malicious reports?**

    Yes, you will be able to see all attestations via the reputation graph explorer: https://explorer-graph.web.app/

    In the full feature front-end release in a few days, you'll be able to see which address endorsed or reported which Snaps both on the Snap profile page and on the user profile page.

12. **Can I use the community sentiment badges in other/outside on-chain scenarios?**

    Yes, any developer may leverage your reputation badges and compose them with other use cases or applications.

13. **Where can I see who rated me for what?**

    You can go to the Reputation Graph Explorer, search for your EOA/DID and see who all rated you.

14. **How do I dispute ratings about other users or snaps?**

    For this experiment, we are simply letting users rate other users and snaps. In the next phase, you will be able to dispute or endorse the issued ratings.

But you can always endorse or report a user in case you trust or distrust them.

15. **Where do I see how ratings affect Snaps?**

    You can see the historical changes in Snap community sentiment on the Graph Explorer. Soon, we will publish a Dune dashboard to monitor historical user and snap community sentiment.

16. **What does the reputation graph explorer show?**

    The reputation graph explorer shows the live attestations in the network. Each node is either a Snap or a User, and each edge is an attestation being issued. Red lines represent reports of malicious users or Snaps. Green lines represent endorsements of trusted users or Snaps.

    You can search for a User or Snap to see incoming and outgoing attestations. Upon clicking any node in the network, you'll also see the list of peers and Snaps interacting with that node.