बैंक ऑफ़ बड़ौदा
Bank of Baroda

Technology Partner
Microsoft Azure

Bank of Baroda Hackathon - 2022

Your Team Name : Forage

Your team bio : We’re here to win

Date :20-09-2022

Problem Statement?

Why did you decide to solve this Problem statement?

We can effectively utilize Web3.0 technology to address practical issues to alternate authentication.
It is time to convert to an authentication method that is much more safe, accurate, and effective as the world prepares to move into Web 3.0 .

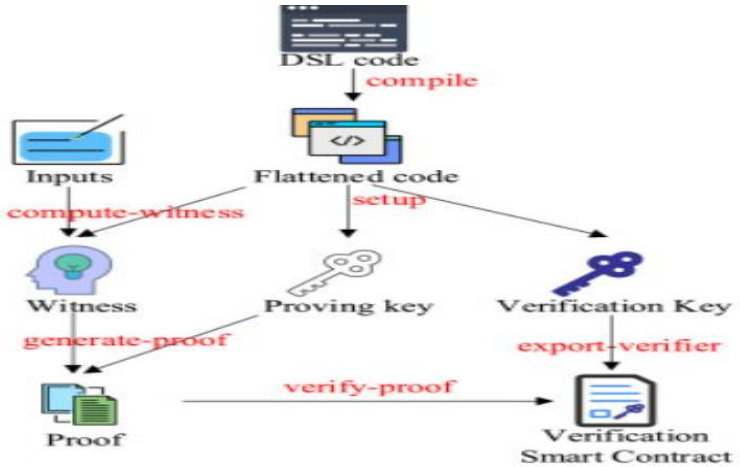
User Segment & Pain Points

Which user /advertiser segment would be early adopter of your product & why?

Since authentication is a two-way process, both the user and the business seeking to verify the user's identity would use it.

Reason the World will use our product:

- With concerns about data privacy periodically being raised, the world wants to be more secure.
- Bank account, credit card, email address, Aadhaar, PAN, or even your social media account may be the target of identity theft.



Pre-Requisite

What are the alternatives/competitive products for the problem you are solving?

To create the software, we are utilizing the newest Web 3.0 technologies. There are no actual alternatives to our product for authentications in banks, social media, etc. because this is only used by NFTs.

Azure tools or resources

Azure tools or resources which are likely to be used by you for the prototype, if your idea gets selected

Web App gor Containers

- Easily deploy and run containerized applications that scale with your business
- Use a fully-managed platform to perform infrastructure maintenance
- Take advantage of built-in auto scaling and load balancing
- Streamline CI/CD with Docker Hub, Azure Container Registry, and GitHub

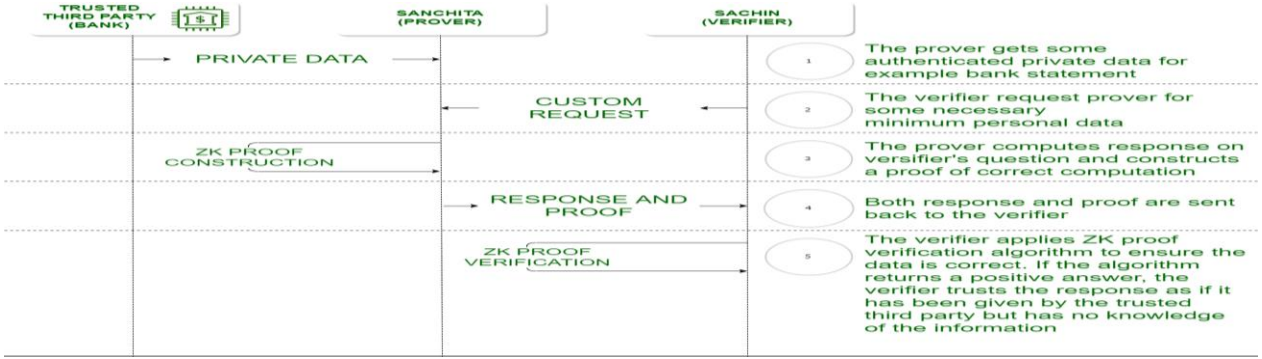
Any Supporting Functional Documents

Present your solution, talk about methodology, architecture & scalability

Methodology:

Using Zero-knowledge password proof authentication systems where one party wants to prove its identity to a second party using a password but doesn't want the second party or anybody else to learn anything about the password . Creating a Password-authenticated key exchange protocol that is secure against off-line dictionary attacks making safe and secure use preventing any party from verifying guesses for the password without interacting with a party that knows it.

Architecture:



Scalibility:

We do not have to count every token transfer as a transaction because of zero-knowledge proofs. This is where zero knowledge-rollups are useful. We can combine hundreds or even thousands of token transfers into a single transaction using this, and this transaction is then published on the Ethereum public blockchain. The fees and computing power are split among hundreds or thousands of users as a result of condensing numerous transactions into one.

Key Differentiators & Adoption Plan

How is your solution better than alternatives and how do you plan to build adoption?

How is our solution better:

- Using Zero-knowledge password proof authentication systems where one party wants to prove its identity to a second party using a password but doesn't want the second party or anybody else to learn anything about the password . Creating a Password-authenticated key exchange protocol that is secure against off-line dictionary attacks.
- A Zero-knowledge password proof prevents any party from verifying guesses for the password without interacting with a party that knows it and, in the optimal case, provides exactly one guess in each interaction.

Plan for Adoption:

- Zero-knowledge password proof authentication systems is same in user handling as the ongoing authentication method which makes it easy to adoption for user.

GitHub Repository Link & supporting diagrams, screenshots, if any

How far it can go?

The future lies for Web 3.0 and our solution is based on Web 3.0, so it holds a lot of importance in the future.

GitHub Repository Link: https://github.com/Aaditya-Mishra/Forage-BOB

TECHGIG

Thank You

Team member names

Sujal Garg

Jatin Nagar

Aaditya Mishra

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