# Abstract

IDRX is a stable token pegged to the value of the Indonesian rupiah (IDR). As a cryptocurrency, IDRX offers users the benefits of blockchain technology, including security, transparency, and decentralized control. At the same time, as a stable token, IDRX offers price stability by maintaining a fixed exchange rate with the IDR, which is the national currency of Indonesia.

IDRX is designed to be used as a means of payment and store of value, offering a reliable and secure way to transact in IDR-denominated assets without the volatility typically associated with cryptocurrencies. IDRX aims to facilitate the adoption of cryptocurrencies in Indonesia, while also providing a stable and secure alternative to traditional fiat currencies.

In addition to its peg to the Indonesian rupiah, IDRX will also be deployed on the Polygon network (formerly Matic Network). By leveraging Polygon's high-speed and low-cost infrastructure, IDRX aims to provide users with fast and affordable transactions, making it easier to use IDRX for everyday payments and transfers.

However, the project team recognizes the importance of interoperability and plans to add support for other blockchain networks in the future, as the project continues to develop. This will allow IDRX users to transact across different networks and increase the token's liquidity and accessibility. The team is also exploring the integration of IDRX with decentralized finance (DeFi) protocols, which would further enhance the token's utility and value.

Overall, IDRX represents an innovative and exciting approach to stablecoin design, combining the stability of a fiat currency peg with the benefits of blockchain technology. With its planned deployment on the Polygon network and future support for other networks, IDRX has the potential to become a leading stablecoin in the rapidly evolving cryptocurrency landscape.

# History of Stable Tokens and Background of IDRX

## Transformation of Technology

The internet has undergone a significant transformation from Web 1 to Web 2 and now to Web 3. Web 1 was characterized by static web pages and limited user interaction. Web 2, on the other hand, introduced dynamic web pages and user-generated content, enabling more significant user engagement and social interaction. The emergence of Web 2 has led to the growth of large internet-based platforms such as Facebook, Google, and Amazon, among others.

However, Web 2 also presented significant challenges such as data privacy concerns, centralized control, and censorship. The centralized control of these platforms has led to the concentration of power and wealth in the hands of a few individuals or corporations, limiting competition, innovation, and equal opportunities for all users.

Web 3 represents a new phase of the internet that aims to address these challenges by decentralizing control, providing users with more privacy and control over their data, and enabling peer-to-peer transactions without intermediaries. Web 3 is built on blockchain technology, which is a distributed ledger that enables secure and transparent transactions without the need for intermediaries.

One of the critical components of Web 3 is cryptocurrencies, which are digital assets that use cryptography to secure transactions and control the creation of new units. However, the volatility of cryptocurrencies such as Bitcoin and Ethereum has hindered their adoption as a means of payment and store of value.

Stable tokens, on the other hand, are a type of cryptocurrency that is pegged to a stable asset such as the US dollar or gold. Stable tokens offer the benefits of cryptocurrencies, including security, transparency, and decentralized control, while also providing price stability by maintaining a fixed exchange rate with a stable asset.

As Web 3 continues to evolve, stable tokens are becoming increasingly important as they provide a reliable and secure way to transact in cryptocurrency without the volatility typically associated with cryptocurrencies. Stable tokens are, therefore, required to enter the Web 3 ecosystem and enable the growth of decentralized applications, decentralized finance (DeFi), and other innovative use cases. The following whitepaper presents a stablecoin, IDRX, which is pegged to the Indonesian rupiah and aims to provide a stable and secure means of transacting in the Indonesian market.

## Indonesia Web 3 ecosystem

Indonesia has a rapidly growing digital economy, with an increasing number of people using digital services for everyday transactions. Cryptocurrencies have also

gained popularity in Indonesia, with a significant number of people investing in Bitcoin and other cryptocurrencies. However, the volatility of these cryptocurrencies has hindered their adoption as a means of payment and store of value.

Indonesia has a large unbanked population, which makes it challenging for them to access financial services. Cryptocurrencies, and stablecoins in particular, offer a solution to this problem by providing a secure and accessible means of transacting without the need for a traditional bank account.

By introducing a stablecoin such as IDRX, which is pegged to the Indonesian rupiah, the Indonesian market can benefit from the advantages of stablecoins, such as security, transparency, and decentralization. This will also facilitate the adoption of cryptocurrencies and support the growth of the digital economy in Indonesia.

Overall, the development of stablecoins in Indonesia is crucial for the advancement of blockchain technology and the growth of the digital economy. By providing a stable and accessible means of transacting, more people can access Web 3 and develop platforms for its ecosystem, contributing to the overall growth and development of the Indonesian economy.

## The Benefits of Stable tokens

1. Price Stability: IDRX is designed to maintain a stable price, which makes it a reliable store of value and a more predictable means of payment.
2. Accessibility: IDRX is accessible to anyone with an internet connection, regardless of geographic location or access to traditional financial services.
3. Security: IDRX is built on blockchain technology, which provides a high level of security and transparency.
4. Decentralization: IDRX is decentralized, which means it is not controlled by any central authority or institution, making it immune to government control or censorship.
5. Fast and Affordable Transactions: IDRX can be transacted quickly and at a low cost, making it an ideal means of payment for everyday transactions.
6. Interoperability: IDRX is deployed on the Polygon network (and will be more), which is a high-performance, low-cost, and secure blockchain network. IDRX is also planned to be added to other blockchain networks in the future, allowing for greater liquidity and accessibility.
7. Integration with DeFi: IDRX can be integrated with decentralized finance (DeFi) protocols and already been used by few platforms
8. Diversification: IDRX offers investors an opportunity to diversify their portfolio with a low-risk asset that is not tied to traditional financial markets.

Overall, IDRX provides a range of benefits and strengths that make it a compelling digital asset for investors, businesses, and individuals alike. With its stability, accessibility, security, and decentralized nature, IDRX has the potential to revolutionize the way we transact, invest, and store value in the digital economy.

# The Use Case

IDRX's stable price and interoperability with DeFi protocols make it a useful asset for both traders and individuals looking to hedge trading and participate in the emerging decentralized financial ecosystem.

1. Hedge Trading: IDRX can be used as a hedge against market volatility, particularly for traders and investors who are exposed to the Indonesian Rupiah (IDR). For example, if a trader expects the IDR to depreciate, they can hold IDRX as a stable alternative to mitigate their risk.
2. Accessing DeFi Platforms: IDRX can be used to access decentralized finance (DeFi) platforms, such as lending, borrowing, and staking protocols. This is particularly useful for individuals in Indonesia who may not have access to traditional financial services, but can use IDRX to participate in DeFi activities and earn interest on their assets.

As the demand for stablecoins and DeFi continues to grow, IDRX has the potential to become a valuable asset for both hedging and investment purposes.

# The Technology and Operation

## Polygon Blockchain Network

Polygon (formerly Matic Network) is a Layer 2 scaling solution for Ethereum that aims to improve the scalability and usability of the network. It is an open-source, modular framework that allows developers to create and deploy scalable, interoperable blockchain networks.

Polygon achieves its scalability by using a combination of technologies, including Plasma, Optimistic Rollups, and ZK-rollups. These technologies enable high-speed, low-cost transactions, making it easier for developers to build decentralized applications (dApps) and for users to access them.

If you want to learn more about Polygon, you can visit their official website at polygon.technology. There you can find more information about the technology, use

cases, and the team behind the project. Additionally, you can also find resources, including documentation, developer tools, and community forums.

## Security and Operation Design

To mitigate risks and ensure the security of our internal operations, we have implemented a multi-signature smart contract design for IDRX.

During the deployment of the IDRX smart contract on the Polygon blockchain, we have established one address as the Owner and three addresses as Administrators. Each of these addresses is controlled by separate hardware wallets. The multi-signature design ensures that no single person has the authority to perform critical operations, and any such operations require at least two signatures.

Specifically, two signatures are required for minting up to 10 million IDRX, burning IDRX tokens at a pre-defined burn address, and minting above 10 million IDRX in a single transaction.

Additionally, two of three Administrators plus Owner signatures are required for transferring the token management of the IDRX and replacing, adding, or removing an Administrator.

To further increase the security of IDRX transactions, we implement an off chain and on chain verification system for all smart contract transactions, such as minting and burning tokens. This means that these transactions will be checked manually and cross it with onchain data, providing an additional layer of protection against external attacks.

Once the transactions are signed and verified, we then use a separate device to securely transmit and broadcast them to the polygon blockchain. This approach ensures that the computer used for transaction signing is isolated from potential threats.

# Conclusion

In conclusion, IDRX presents a stablecoin solution for the Indonesian market, offering users the benefits of blockchain technology while maintaining price stability by being pegged to the Indonesian rupiah. With its deployment on the Polygon network, IDRX aims to provide fast and affordable transactions, making it easier for users to transact in IDR-denominated assets. As the Web 3 ecosystem continues to evolve, stablecoins such as IDRX are becoming increasingly important in facilitating the adoption of cryptocurrencies and supporting the growth of the digital economy. Overall, IDRX represents an innovative and exciting approach to stablecoin design and has th epotential to become a leading stablecoin in the rapidly evolving cryptocurrency landscape.