# 1. Name of the Protocol: Bluzelle

|  |  |
| --- | --- |
| Name of the Token: | BLZ |
| Official Website: | <https://www.bluzelle.com/> |
| Whitepaper link | <https://www.bluzelle.com/wp-content/uploads/2017/10/bluzelle-whitepaper-english1-4.pdf> |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/bluzelle/ |
| CoinGecko Link: | https://www.coingecko.com/en/coins/bluzelle |
| Reviewer: | Dr Farrukh Habib |
| Review Date: | 31 October 2023 |
| Review Expiry: | 30 October 2024 |

## 1.1. Main Functions of the Protocol and Token

### 1.1.1 The Protocol

Bluzelle is a decentralized data network that aims to allow users to have full control over their data, ensuring both privacy and security. The protocol offers a decentralized database service to dApps, aiming to improve data management processes by ensuring data privacy and security through its unique consensus model. The Bluzelle protocol is designed to be interoperable, allowing data to be managed across various blockchain networks.

### 1.1.2 The Token

The Bluzelle token (BLZ) serves as the native utility token within the ecosystem. It is primarily used to pay for various services within the network, including data storage and retrieval. The token also plays a role in governance, enabling holders to participate in decisions concerning the network's upgrades and changes.

## 1.2. Shariah Description of the Protocol and Token

### 1.2.1 The Protocol

From a Shariah perspective, the Bluzelle protocol's primary function does not contradict with the principles Shariah as it offers data privacy and security. Sometimes, such features are crucial in Islamic finance and business dealings. The decentralized nature of the protocol also does not contradict with Shariah principles as it helps reducing excessive uncertainty (gharar) and ensuring transparency.

### 1.2.2 The Token

The BLZ token's primary use case as a utility token for paying services in a decentralized data management ecosystem does not inherently contradict Shariah principles. However, the token's role in governance should be analyzed further to ensure it adheres to Shariah principles.

## 1.3. Shariah Opinion of the Protocol and Token

### 1.3.1 Protocol

The Bluzelle protocol's core objective seemed to be aligned with Islamic principles, hence, it is Shariah compliant. However, its staking mechanism needs to be evaluated separately.

### 1.3.2 Token

The utility function of the BLZ token, primarily for accessing services within the Bluzelle network, appears to be in line with Shariah principles, so it is Shariah-compliant as well.

# 2. Name of the Protocol: Render

|  |  |
| --- | --- |
| Name of the Token: | RNDR |
| Official Website: | <https://rendernetwork.com/> |
| Whitepaper link | <https://know.rendernetwork.com/> |
| CoinMarketCap Link: | <https://coinmarketcap.com/currencies/render/> |
| CoinGecko Link: | <https://www.coingecko.com/en/coins/render> |
| Reviewer: | Dr Farrukh Habib |
| Review Date: | 31 October 2023 |
| Review Expiry: | 30 October 2024 |

## 2.1 Main Function of the Protocol and Token:

The Protocol: The Render Network is engineered as a decentralized GPU rendering marketplace. It aims to connect users requiring rendering tasks with individuals having idle GPU resources, thereby democratizing the rendering process and reducing the costs associated with traditional cloud rendering solutions. This protocol thereby promotes a shared economy model where resources are optimally utilized.

The Token: RNDR, an ERC-20 token, is the native utility token in the Render Network. It's used to compensate individuals providing their GPU resources, ensuring a fair transactional relationship between renderers and those requiring rendering services. The token facilitates payments and acts as an incentive mechanism within the ecosystem. It also might be used to prioritize rendering jobs, accessing additional services, or gaining a higher level of service within the Render Network.

## 2.2 Shariah Description of the Protocol and Token:

The Render Network protocol is a decentralized platform based on a peer-to-peer model, steering clear from central authority control. This decentralized nature aligns with Shariah principles of community and fair trade. RNDR, as a utility token, serves as a medium of exchange within a specific ecosystem and does not exhibit characteristics of riba (usury), gharar (uncertainty), or maysir (gambling).

## 2.3 Shariah Opinion of the Protocol and Token:

The protocol and its token do not inherently involve any Shariah-prohibited activities. The decentralized nature of the protocol and the utility function of the RNDR token do not contradict with Shariah principles. However, one should also follow Shariah principles in investing, trading and usage manners outside the Render Network.

# 3. Name of the Protocol: Loom Network

|  |  |
| --- | --- |
| Name of the Token: | LOOM |
| Official Website: | <https://loomx.io/> |
| Whitepaper link | <https://medium.com/loom-network/introducing-loom-network-scaling-ethereum-today-9ea26b5b57c> |
| CoinMarketCap Link: | <https://coinmarketcap.com/currencies/loom-network/> |
| CoinGecko Link: | <https://www.coingecko.com/en/coins/loom-network-new> |
| Reviewer: | Dr Farrukh Habib |
| Review Date: | 31 October 2023 |
| Review Expiry: | 30 October 2024 |

## 3.1 Main Function of the Protocol and Token:

### 3.1.1. The Protocol:

Loom Network facilitates scalable, user-friendly decentralized applications (dapps) across multiple chains, optimizing their performance.

### 3.1.2. The Token (LOOM):

LOOM, a proof-of-stake token, secures Basechain, the network's mainnet. Token holders stake LOOM for network security, earning rewards. Additionally, developers utilize LOOM for dapp hosting on Loom Network, a monthly fee supersedes transaction costs, a departure from Ethereum's model, but functionality wise, it is similar to ETH.

## 3.2 Shariah Description of the Protocol and Token:

The Loom Network's decentralization and multi-chain interoperability don't inherently involve activities prohibited in Shariah. LOOM's proof-of-stake mechanism aligns with Islamic principles of earning through contribution and effort.

## 3.3 Shariah Opinion of the Protocol and Token:

The protocol and token can be perceived as Shariah-compliant given the absence of prohibited elements like usury, gambling, or unethical practices. However, a thorough and separate examination is needed to validate the staking mechanism.

# 4. Name of the Protocol: Tellor

|  |  |
| --- | --- |
| Name of the Token: | TRB |
| Official Website: | <https://tellor.io/> |
| Whitepaper link | <https://docs.tellor.io/tellor/the-basics/readme> |
| CoinMarketCap Link: | <https://coinmarketcap.com/currencies/tellor/> |
| CoinGecko Link: | <https://www.coingecko.com/en/coins/tellor-tributes> |
| Reviewer: | Dr Farrukh Habib |
| Review Date: | 31 October 2023 |
| Review Expiry: | 30 October 2024 |

## 4.1. Main Function of the Protocol and Token:

Protocol: Tellor is a decentralized and transparent oracle protocol aimed at providing data to smart contracts whenever required. It promotes an open network for data reporting and validation, enabling data provision and verification by a broad range of participants.

Token: TRB, the native token, plays a critical role in submitting data to the network, where miners compete to submit the data and earn TRB rewards. It also serves as a stake to ensure honest data submission, with penalties for dishonesty.

## 4.2. Shariah Description of the Protocol and Token:

Protocol: Tellor Protocol operates on a decentralized basis without a controlling entity, not contradicting with any Shariah principles. However, the staking mechanism and benefits derived from it need separate examination.

Token: TRB is crucial for protocol operation, acting as an incentive and a stake. The token's primary use is to facilitate data provision. It does not seem to inherently involve elements of Riba (usury), Gharar (uncertainty), or Maysir (gambling).

## 4.3. Shariah Opinion of the Protocol and Token:

The Tellor Protocol and the TRB token can be perceived as Shariah-compliant given their decentralized nature and absence of prohibited elements. However, the staking mechanism should be separately evaluated to know their Shariah compliance. Other than trading the token, if someone wants to use the protocol and its token, then the usage of TRB and engagement with the Tellor Protocol should adhere to ethical and Shariah-compliant practices as well, ensuring that the data provided and utilized promotes fairness, honesty, and overall community benefit.

# 5. Name of the Protocol: Secret

|  |  |
| --- | --- |
| Name of the Token: | SCRT |
| Official Website: | <https://scrt.network/> |
| Whitepaper link | <https://docs.scrt.network/secret-network-documentation/> |
| CoinMarketCap Link: | <https://coinmarketcap.com/currencies/secret/> |
| CoinGecko Link: | <https://www.coingecko.com/en/coins/secret> |
| Reviewer: | Dr Farrukh Habib |
| Review Date: | 31 October 2023 |
| Review Expiry: | 30 October 2024 |

## 5.1. Main Function of the Protocol and Token:

### 5.1.1. The Protocol:

The Secret Network is the first blockchain with privacy-preserving smart contracts, aiming to bring data privacy to public blockchains. This protocol allows developers to build decentralized applications (dApps) that utilize encrypted data without revealing it, enabling more secure and private interactions. The Secret Network offers scalable, permissionless, and privacy-preserving smart contract computation, aiming to bring data privacy to public blockchains.

### 5.1.2. The Token:

The SCRT token is the native utility token of the Secret Network. SCRT are used for various network activities such as paying for transaction fees, participating in network governance, and potentially for staking to secure the network.

## 5.2. Shariah Description of the Protocol and Token:

The Secret Network operates on a decentralized model, which aligns with the Shariah principles of removing undue intermediaries and promoting transparency, albeit the network specializes in privacy-preserving computations. The decentralized nature of the network avoids the concentration of power and the potential for unfair practices.

The SCRT token as a utility token doesn't inherently involve prohibited activities like Riba (usury), Gharar (uncertainty), or Maysir (gambling).

## 5.3. Shariah Opinion of the Protocol and Token:

The core protocol and the SCRT token do not appear to involve any Haram (forbidden) elements from the information available at the official resources. However, the privacy aspect, if used for unethical or unlawful purposes, can be problematic from a Shariah standpoint. Hence, while the technology and the token could be deemed permissible, their usage should adhere to Islamic ethics and financial guidelines to ensure Shariah compliance. The holders and users of SCRT tokens should ensure their activities on the network align with Islamic principles and local regulatory frameworks.

# 6. Name of the Protocol: Stacks

|  |  |
| --- | --- |
| Name of the Token: | STX |
| Official Website: | [https://www.stacks.co/](https://www.stacks.co/%20) |
| Whitepaper link | <https://gaia.blockstack.org/hub/1AxyPunHHAHiEffXWESKfbvmBpGQv138Fp/stacks.pdf> |
| CoinMarketCap Link: | <https://coinmarketcap.com/currencies/stacks/> |
| CoinGecko Link: | <https://www.coingecko.com/en/coins/stacks> |
| Reviewer: | Dr Farrukh Habib |
| Review Date: | 31 October 2023 |
| Review Expiry: | 30 October 2024 |

## 6.1. Protocol Description:

Main Objectives: Stacks aims to build a user-owned internet on Bitcoin, extending its functionality with smart contracts and decentralized applications (dApps).

Mechanics: Utilizes a novel consensus mechanism called PoX (Proof of Transfer), which anchors to Bitcoin's security.

## 6.2. Token Description:

Main Usage: STX tokens are used for executing smart contracts on the Stacks network.

Main Functions: Enables smart contract functionality, used in transaction fees, and rewards miners through the PoX mechanism.

Unique Features: The PoX mechanism allows STX holders to earn Bitcoin by actively participating in the consensus mechanism, creating a unique bridge between STX and Bitcoin ecosystems.

## 6.3. Shariah Nature of the Protocol:

The protocol’s nature is technical, enabling smart contract functionality on Bitcoin's blockchain. It doesn't inherently involve activities prohibited in Shariah.

**Islamic Legal Characterization of the Token:**

STX can be viewed as a digital asset or property (مال متقوم) utilized in a technological framework for specific functionalities like executing smart contracts.

**Prohibited Elements:**

There’s no evident engagement in usury, gambling, or unethical activities through the protocol or token.

## 6.4. Shariah Opinion of the Protocol and Token:

In conclusion, the protocol, from a theoretical perspective, doesn't seem to violate core Shariah principles. The token can be considered a valid property in Islamic law. Hence, the protocol and the tokens are permissible to be used. However, their permissibility is also determined by their application and usage. Users should also ensure that their interactions/transactions, such as trading, investment, and holding, with the protocol or token are aligned with Islamic principles as well.

# 7. Name of the Protocol: Drep

|  |  |
| --- | --- |
| Name of the Token: | DREP |
| Official Website: | <https://www.drep.org/> |
| Whitepaper link | <https://drep.org/resource> |
| CoinMarketCap Link: | <https://coinmarketcap.com/currencies/drep-new/> |
| CoinGecko Link: | <https://www.coingecko.com/en/coins/drep-new> |
| Reviewer: | Dr Farrukh Habib |
| Review Date: | 31 October 2023 |
| Review Expiry: | 30 October 2024 |

## 7.1. Main Function of the Protocol and Token:

### 7.1.1. The Protocol:

DREP is a decentralized cross-chain protocol that enables cross-chain asset transfers, cross-chain smart contract calls, and cross-chain data exchange. It is designed to be a universal cross-chain bridge that can connect any two blockchains, regardless of their underlying consensus mechanism or programming language.

DREP's main objective is to make it easy and seamless for users to interact with different blockchains. It aims to do this by providing a unified cross-chain infrastructure that can be used by developers and users alike.

### 7.1.2. The Token:

DREP is the native token of the DREP protocol. It is used for a variety of purposes, including:

* Paying transaction fees: DREP is used to pay transaction fees for cross-chain transfers, cross-chain smart contract calls, and cross-chain data exchange.
* Rewarding relayers: Relayers are rewarded with DREP for verifying and processing cross-chain transactions.
* Staking: DREP holders can stake their tokens to support the network and earn rewards.
* Governance: DREP holders have the right to vote on proposals that affect the development and governance of the protocol.

## 7.2. Shariah Description of the Protocol and Token:

The platform operates on a decentralized, blockchain-based model which aligns with the Shariah principles of transparency, trust, and avoidance of central monopolistic authority.

The cross-chain interoperability feature could be seen as a facilitator for smoother transactions and interactions between different blockchain entities, potentially reducing uncertainties and ambiguities associated with cross-chain operations.

The DREP token can be characterized as Mal (property) as it holds value and can be owned, bought, and sold.

The utility of DREP token in paying transaction fees, staking, and governance may align it with the Shariah concept of a utility token, provided it serves a halal (permissible) purpose.

## 7.3. Shariah Opinion of the Protocol and Token:

In conclusion, the protocol, from a theoretical perspective, doesn't seem to violate core Shariah principles. The token can be considered a valid property in Islamic law. Hence, the protocol and the tokens are permissible to be used. However, their permissibility is also determined by their application and usage. Users should also ensure that their interactions/transactions, such as trading, investment, and holding, with the protocol or token are aligned with Islamic principles as well.

# 8. Name of the Protocol: Worldcoin

|  |  |
| --- | --- |
| Name of the Token: | WLD |
| Official Website: | <https://worldcoin.org/> |
| Whitepaper link | <https://whitepaper.worldcoin.org/> |
| CoinMarketCap Link: | <https://coinmarketcap.com/currencies/worldcoin-org/> |
| CoinGecko Link: | <https://www.coingecko.com/en/coins/worldcoin> |
| Reviewer: | Dr Farrukh Habib |
| Review Date: | 31 October 2023 |
| Review Expiry: | 30 October 2024 |

## 8.1. Main Function of the Protocol and Token:

### 8.1.1 The Protocol:

Worldcoin aims to provide a universal digital identity, termed World ID, using a blend of facial recognition and eye scanning technology. Its objectives include accessibility, user privacy, and control over one's digital identity. The protocol encompasses innovative concepts like Proof of Personhood and employs distributed ledger technology alongside privacy-preserving technologies.

### 8.1.2 The Token:

The Worldcoin token (WLD) is pivotal for obtaining a World ID, rewarding Orb operators, staking, and governance. It's designed for universal distribution, providing real utility and scalability to accommodate a vast user base.

## 8.2. Shariah Description of the Protocol and Token:

The decentralized nature and transparency align with Shariah principles. WLD, holding value and being tradable, qualifies as Mal (property) under Islamic law. Its utility and the user's control over their digital identity resonate with Shariah's focus on individual ownership and ethical utility.

## 8.3. Shariah Opinion of the Protocol and Token:

The protocol and token, in theory, adhere to core Shariah principles. Their utility and application, if aligned with Islamic ethics, render them permissible for use. The onus is on the users to ensure their interactions with Worldcoin and WLD conform to Islamic principles.

# 9. Name of the Protocol: Conflux

|  |  |
| --- | --- |
| Name of the Token: | CFX |
| Official Website: | <https://confluxnetwork.org/> |
| Whitepaper link | <https://confluxnetwork.org/files/Conflux_Economic_Paper_20201230.pdf> |
| CoinMarketCap Link: | <https://coinmarketcap.com/currencies/conflux-network/> |
| CoinGecko Link: | <https://www.coingecko.com/en/coins/conflux> |
| Reviewer: | Dr Farrukh Habib |
| Review Date: | 31 October 2023 |
| Review Expiry: | 30 October 2024 |

## 9.1. Main Function of the Protocol and Token:

### 9.1.1 The Protocol:

The Conflux protocol is a decentralized, open-source blockchain platform that enables the development and deployment of decentralized applications (DApps).

### 9.1.2 The Token:

The CFX token is the native cryptocurrency of the Conflux network and is used to pay for transaction fees, staking, and governance.

## 9.2. Shariah Description of the Protocol and Token:

From a Shariah perspective, the Conflux protocol is decentralized platforms that do not directly involve any prohibited activities, such as interest, gambling, or excessive uncertainty. CFX is a payment token that can also be used to participate in the network and earn rewards.

However, it is important to note that the Conflux protocol and CFX token can be used for both halal and haram purposes. It is up to the individual user to ensure that they are using CFX in a Shariah-compliant manner.

## 9.3. Shariah Opinion of the Protocol and Token:

The Conflux protocol and CFX token are both permissible (halal) in Islam, as long as they are used in a Shariah-compliant manner. Only use CFX for legitimate purposes. CFX should not be used for any prohibited activities, such as money laundering or terrorist financing. Do not engage in any speculative trading (like futures) or gambling with CFX.

# 10. Name of the Protocol: Celer Network

|  |  |
| --- | --- |
| Name of the Token: | CELR |
| Official Website: | <https://celer.network/> |
| Whitepaper link | <https://im-docs.celer.network/developer/celer-im-overview> |
| CoinMarketCap Link: | <https://coinmarketcap.com/currencies/celer-network/> |
| CoinGecko Link: | <https://www.coingecko.com/en/coins/celer-network> |
| Reviewer: | Dr Farrukh Habib |
| Review Date: | 31 October 2023 |
| Review Expiry: | 30 October 2024 |

## 10.1. Main Function of the Protocol and Token:

### 10.1.1 The Protocol:

The Celer Network is a Layer-2 scaling solution for Ethereum that enables fast, low-cost, and secure off-chain transactions. The Celer Network uses a state channel technology that allows users to perform transactions off-chain, without having to wait for the Ethereum mainnet to confirm them. This makes transactions on the Celer Network significantly faster and cheaper than transactions on the Ethereum mainnet.

### 10.1.2 The Token:

The CELR token is the native cryptocurrency of the Celer Network. It is used to pay for transaction fees on the network, to reward validators, and to participate in governance.

## 10.2. Shariah Description of the Protocol and Token:

From a Shariah perspective, the Celer Network is decentralized platforms that do not directly involve any prohibited activities, such as interest, gambling, or excessive uncertainty. CELR is a payment token that can also be used to participate in the network and earn rewards.

However, it is important to note that the Celer Network and CELR token can be used for both halal and haram purposes. It is up to the individual user to ensure that they are using CELR in a Shariah-compliant manner.

## 10.3. Shariah Opinion of the Protocol and Token:

The CELR protocol and CELR token are both permissible (halal) in Islam, as long as they are used in a Shariah-compliant manner. A user should only use CELR for legitimate purposes. CELR should not be used for any prohibited activities. The user should not engage in any speculative trading (like futures) or gambling with CELR.

# 11. Name of the Protocol: tomiNet

|  |  |
| --- | --- |
| Name of the Token: | TOMI |
| Official Website: | <https://tomi.com/> |
| Whitepaper link | <https://tomi.com/newmmm/Tomi_Free_As_In_Speech_Whitepaper_V1.0.pdf> |
| CoinMarketCap Link: | <https://coinmarketcap.com/currencies/tominet/> |
| CoinGecko Link: | <https://www.coingecko.com/en/coins/tominet> |
| Reviewer: | Dr Farrukh Habib |
| Review Date: | 31 October 2023 |
| Review Expiry: | 30 October 2024 |

## 11.1. Main Function of the Protocol and Token:

### 11.1.1 The Protocol:

tomi utilizes decentralized DNS, high-performance computing technology, a multi-chain wallet, and a unique browser, all of this with the goal to further decentralize digital assets, and cloud services and provide the infrastructure for a web3 internet, that provides free speech and allows web 3 projects to become fully decentralized.  
tomi's vision is to create a new internet that is a completely clean slate, one where giant companies do not control the information that reaches the people or the information that is collected about them. An internet where no one can control what will be said and what will be kept silent. A platform where people can freely and privately buy and sell cryptocurrency and government and corporate surveillance is impossible. tomi is a place where the citizens are the ones who decide what should and should not be censored, where the big media companies no longer determine what we can see and what we can't. We believe in the rights of people to transact freely and invest freely, using any type of money they choose.

### 11.1.2 The Token:

The tomi network includes a fungible native TOMI token which is the native utility and transaction tokens. The TOMI tokens include the following utility:

* DAO voting and delegation.
* Incentivizing key contributing stakeholders (including via the tomiDAO’s treasury).
* Disbursements of the development fund (controlled by the tomiDAO).
* Payment for domain purchases and hosting.
* Payment on products and services in the tomiNet
* Payment of fees related to the tomiNet and ecosystem.

## 11.2. Shariah Description of the Protocol and Token:

The protocol aims at decentralizing digital assets and cloud services aligning with Islamic principles of reducing monopolistic control and ensuring free trade. The TOMI token serves as a utility and transaction medium within this framework, which is permissible in Shariah if the transactions are halal.

## 11.3. Shariah Opinion of the Protocol and Token:

Given the protocol's objective to enhance decentralization and the token's utility within a permissible framework, both seem to align with Shariah principles. A user should only use TOMI for legitimate purposes. TOMI should not be used for any prohibited activities. The user should not engage in any speculative trading (like futures) or gambling with TOMI.

# 12. Name of the Protocol: Dogecoin

|  |  |
| --- | --- |
| Name of the Token: | DOGE |
| Official Website: | <https://dogecoin.com/> |
| Whitepaper link | <https://github.com/dogecoin/dogecoin/blob/master/README.md> |
| CoinMarketCap Link: | <https://coinmarketcap.com/currencies/dogecoin/> |
| CoinGecko Link: | <https://www.coingecko.com/en/coins/dogecoin> |
| Reviewer: | Dr Farrukh Habib |
| Review Date: | 25 October 2023 |
| Review Expiry: | 24 October 2024 |

## 12.1. Main Function of the Protocol and Token:

### 12.1.1. The Protocol and the Token

Dogecoin (DOGE) is based on the popular "doge" Internet meme and features a Shiba Inu on its logo. The open-source digital currency was forked from Litecoin in December 2013. Dogecoin's creators envisaged it as a fun, light-hearted cryptocurrency that would have greater appeal beyond the core Bitcoin audience, since it was based on a dog meme. Tesla CEO Elon Musk posted several tweets on social media that Dogecoin is his favorite coin.

According to the whitepaper, Dogecoin is a community-driven cryptocurrency that was inspired by a Shiba Inu meme. The Dogecoin Core software allows anyone to operate a node in the Dogecoin blockchain networks and uses the Scrypt hashing method for Proof of Work. It is adapted from Bitcoin Core and other cryptocurrencies.

## 12.2. Shariah Description of the Protocol and Token:

DOGE is considered to be a cryptocurrency similar to BTC. It should therefore fall into the category of money. However, Doge does not seem to have an actual utility, at least at the moment. It was launched as a mockery or competitor of Bitcoin. While the platform boasts about being decentralized and community driven, but without a clear objective.

A deep analysis of the whitepaper clearly shows that it does not have a real economic objective. It only got famous due to speculation only. Elon Musk’s tweets also fueled the speculative activity with this token.

## 12.3. Shariah Opinion of the Protocol and Token:

It is clear that this token has no well-defined purpose, utility or any other benefit on which a shariah ruling can be based. It is purely a speculative token, which people bet on for unusual price action. In this sense, its usage is questionable, and its harm is greater than its benefits. Moreover, the whole branding of the platform and token is related to a dog-breed which might be a shariah issue as well.

It might not have a shariah issue at micro - issuance, default nature - or technological - blockchain, crypto token - level. But it surely has usage and brand perception issues that can lead to other macro issues. Considering the Islamic legal maxims of avoiding the means to impermissible things and harm to the users, it does not seem to be shariah compliant.

# 13. Name of the Protocol: Polkadot

|  |  |
| --- | --- |
| Name of the Token: | DOT |
| Official Website: | <https://www.polkadot.network/> |
| Whitepaper link | <https://www.polkadot.network/whitepaper/> |
| CoinMarketCap Link: | <https://coinmarketcap.com/currencies/polkadot-new/> |
| CoinGecko Link: | <https://www.coingecko.com/en/coins/polkadot> |
| Reviewer: | Dr Farrukh Habib |
| Review Date: | 25 October 2023 |
| Review Expiry: | 24 October 2024 |

## 13.1. Main Function of the Protocol and Token:

### 13.1.1. The Protocol

Polkadot is a blockchain protocol that allows different blockchains to communicate with each other. This allows for the creation of a decentralized network of blockchains that can work together to provide a variety of services.

Polkadot is designed to be scalable, secure, and interoperable. It is scalable because it can support a large number of blockchains and transactions. It is secure because it uses a proof-of-stake consensus mechanism. And it is interoperable because it allows blockchains to communicate with each other.

### 13.1.2. The Token

DOT is the native cryptocurrency of Polkadot. DOT can be used to stake on the Polkadot network, which secures the network and allows users to earn rewards. DOT can also be used to vote on governance proposals, which helps to shape the future of the Polkadot network.

## 13.2. Shariah Description of the Protocol and Token:

Polkadot is a decentralized blockchain network that is not owned or operated by any single entity. This makes it a Shariah-compliant platform, as it does not involve any interest-based transactions or other prohibited activities.

Polkadot does not involve any interest-based transactions or other prohibited activities. Therefore, there are no elements or components in the protocol or token that are prohibited in Shariah.

DOT is a digital asset that is not subject to inflation. It can be used to stake on the Polkadot network, which secures the network and allows users to earn rewards. DOT can also be used to vote on governance proposals, which helps to shape the future of the Polkadot network. DOT is a Shariah-compliant asset, as it does not involve any interest-based transactions or other prohibited activities.

## 13.3. Shariah Opinion of the Protocol and Token:

Polkadot and DOT are both Shariah-compliant. Polkadot is a decentralized blockchain network that does not involve any interest-based transactions or other prohibited activities. DOT is a digital asset that is not subject to inflation and can be used to stake on the Polkadot network or hold value. Therefore, Polkadot and DOT are both permissible (halal) in Islam.

# 14. Name of the Protocol: Toncoin

|  |  |
| --- | --- |
| Name of the Token: | TON |
| Official Website: | <https://ton.org/> |
| Whitepaper link | <https://ton.org/whitepaper.pdf> |
| CoinMarketCap Link: | <https://coinmarketcap.com/currencies/toncoin/> |
| CoinGecko Link: | <https://www.coingecko.com/en/coins/toncoin> |
| Reviewer: | Dr Farrukh Habib |
| Review Date: | 25 October 2023 |
| Review Expiry: | 24 October 2024 |

## 14.1. Main Function of the Protocol and Token:

### 14.1.1. The Protocol

The TON protocol is a decentralized blockchain platform that was developed by the Telegram messaging app. The protocol is designed to be scalable, secure, and efficient, and it can support a wide range of applications.

The TON protocol is based on a modified version of the Proof-of-Stake consensus mechanism. This mechanism allows for more efficient and secure transactions, and it also makes the network more resistant to attack.

The TON protocol also features several other innovations, such as its use of dynamic sharding and its support for smart contracts. These innovations make the TON protocol a powerful platform for a wide range of applications. These include TON Blockchain, TON DNS, TON Storage, and TON Sites. TON Blockchain is the core protocol that connects TON’s underlying infrastructure together to form the TON Ecosystem.

The TON Project uses its own peer-to-peer network protocols. TON Blockchain uses these protocols to propagate new blocks, send and collect transaction candidates and so on. TON Ecosystem services (e.g., TON Proxy, TON Sites, TON Storage) run on these protocols.

### 14.1.2. The Token

The native cryptocurrency of TON Blockchain is Toncoin. Transaction fees, gas payments (i.e., smart contract message processing fees), and persistent storage payments are collected in Toncoin. Toncoin is used to make the deposits required to become a blockchain validator.

## 14.2. Shariah Description of the Protocol and Token:

The TON protocol is a decentralized blockchain platform, which means that it is not subject to the control of any central authority. The TON protocol is also designed to be secure and efficient. The protocol's use of Proof-of-Stake consensus mechanism.

The TON protocol does not directly contain any elements that are prohibited in Shariah law. The protocol does not directly use interest, gambling, or excessive uncertainty, and it does not directly engage in any unethical or immoral activities.

The TON token is a payment token, which means that it has a specific use case.

## 14.3. Shariah Opinion of the Protocol and Token:

Based on the above analysis, it can be concluded that the TON protocol and token are permissible in Shariah law. The protocol is a decentralized blockchain platform that is designed to be secure, efficient, and compatible with Shariah law. The token is a payment token that has a specific use case and does not contain any elements that are prohibited in Shariah law.

# 15. Name of the Protocol: Cosmos

|  |  |
| --- | --- |
| Name of the Token: | ATOM |
| Official Website: | <https://cosmos.network/> |
| Whitepaper link | <https://v1.cosmos.network/resources/whitepaper> |
| CoinMarketCap Link: | <https://coinmarketcap.com/currencies/cosmos/> |
| CoinGecko Link: | <https://www.coingecko.com/en/coins/cosmos-hub> |
| Reviewer: | Dr Farrukh Habib |
| Review Date: | 25 October 2023 |
| Review Expiry: | 24 October 2024 |

## 15.1. Main Function of the Protocol and Token:

### 15.1.1. The Protocol

The Cosmos SDK is an open-source framework for building multi-asset public Proof-of-Stake (PoS) blockchains, like the Cosmos Hub, as well as permissioned Proof-of-Authority (PoA) blockchains. Blockchains built with the Cosmos SDK are generally referred to as application-specific blockchains.

The Cosmos protocol is a framework for building blockchains that are interoperable with each other. It is designed to be scalable, secure, and easy to use. The Cosmos protocol is based on the Tendermint consensus algorithm, which is a Byzantine Fault Tolerant (BFT) algorithm. This means that the Cosmos network can continue to operate even if some of the nodes in the network fail.

The Cosmos protocol has several features that make it well-suited for building interoperable blockchains. These features include:

• Interoperability: The Cosmos protocol allows blockchains to communicate with each other through the Inter-Blockchain Communication (IBC) protocol. This means that users can transfer tokens and data between different blockchains.

• Scalability: The Cosmos protocol is designed to be scalable. This means that it can handle many transactions without becoming congested.

• Security: The Cosmos protocol is designed to be secure. This is achieved using the Tendermint consensus algorithm and other security features.

### 15.1.2. The Token

The Cosmos token (ATOM) is the native cryptocurrency of the Cosmos network. It is used to pay for fees on the Cosmos network, to secure the network through staking, and to participate in governance.

ATOM is a Proof-of-Stake (PoS) cryptocurrency. This means that users can earn rewards by staking their ATOM tokens. Staking is the process of locking up ATOM tokens in order to participate in the consensus process.

ATOM holders can also participate in governance by voting on proposals that affect the Cosmos network. These proposals can include changes to the network's protocol, the distribution of rewards, and other matters.

## 15.2. Shariah Description of the Protocol and Token:

The Cosmos protocol is a decentralized platform that allows developers to build blockchains that are interoperable with each other. It is designed to be scalable, secure, and easy to use.

From a Shariah perspective, it does not involve any prohibited activities, such as interest, gambling, or excessive uncertainty. The protocol is also decentralized, which means that it is not subject to the control of any single entity. This makes it a more secure and trustworthy platform for conducting transactions.

The Cosmos token (ATOM) is a utility token that is used to pay for fees on the Cosmos network, to secure the network through staking, and to participate in governance.

From a Shariah perspective, it is not a security or a derivative, and it does not represent any ownership interest in the Cosmos network. ATOM is simply a tool that can be used to participate in the network and earn rewards.

## 15.3. Shariah Opinion of the Protocol and Token:

Based on the above analysis, the Cosmos protocol and token both are halal. They are decentralized platforms that do not involve any prohibited activities. ATOM is a utility token that can be used to participate in the network and earn rewards.

# 16. Name of the Protocol: Algorand

|  |  |
| --- | --- |
| Name of the Token: | ALGO |
| Official Website: | <https://algorand.com/>  <https://www.algorand.foundation/> |
| Whitepaper link | <https://algorand.com/technology/white-papers> |
| CoinMarketCap Link: | <https://coinmarketcap.com/currencies/algorand/> |
| CoinGecko Link: | <https://www.coingecko.com/en/coins/algorand> |
| Reviewer: | Dr Farrukh Habib |
| Review Date: | 25 October 2023 |
| Review Expiry: | 24 October 2024 |

## 16.1. Main Function of the Protocol and Token:

### 16.1.1. The Protocol

Algorand is a decentralized blockchain-based network designed to support a broad spectrum of applications. The primary goal of Algorand is to offer systems that are secure, scalable, and efficient, which are essential attributes for real-world applications. Algorand aims to establish new forms of trust by ensuring that these systems are self-sustaining. The protocol is unique in that it is designed to be a truly democratic and efficient way to implement a public ledger. Unlike traditional proof-of-work systems, Algorand operates on a negligible amount of computation and produces a transaction history that is highly unlikely to fork.

The platform has introduced several innovations, such as the Pixel multi-signature scheme optimized for blockchains, the Vault cryptocurrency design that minimizes storage and bootstrapping costs, and a Byzantine Agreement protocol that ensures consensus among users on the next set of transactions.

### 16.1.2. The Token

The Algorand token, known as ALGO, serves as the native cryptocurrency of the Algorand network. It is used to facilitate transactions within the ecosystem. ALGO tokens are also essential for participating in the Algorand network's consensus mechanism. Holders of ALGO can participate in the network's decision-making process, thereby ensuring the platform's decentralization.

One of the standout features of the ALGO token is its role in Algorand's Pure Proof-of-Stake (PPoS) consensus mechanism. This approach ensures that every user's influence on the choice of a new block is proportional to their stake, without the need for the energy-intensive calculations required in proof-of-work systems.

## 16.2. Shariah Description of the Protocol and Token:

Algorand, as a blockchain platform, is fundamentally a digital infrastructure that facilitates decentralized transactions and applications. From a Shariah perspective, it can be viewed as a digital tool or medium, similar to how traditional financial systems and tools are viewed. The core function of the protocol is to ensure secure, transparent, and efficient transactions.

The Algorand token (ALGO) can be characterized as "مال متقوم" (valid property) in Islamic jurisprudence. It possesses value, can be owned, and can be used in transactions, making it a valid subject matter of trade. The token's utility and its role in facilitating activities on the Algorand network further cement its status as a valuable asset.

Prohibited Elements in Shariah:

• Interest (Usury): There's no inherent interest or usury associated with the ALGO token or the Algorand protocol.

• Gambling (قمار, ميسر): The Algorand protocol itself doesn't promote or facilitate gambling.

• Excessive Uncertainty (غرر): The inherent functions of the ALGO token or the Algorand protocol do not introduce excessive uncertainty.

• Unethical or Immoral Activities: The protocol itself is neutral and doesn't promote unethical or immoral activities. However, users must ensure that the applications they engage with on the platform are in line with Islamic ethics.

## 16.3. Shariah Opinion of the Protocol and Token:

In conclusion, the Algorand protocol, from a foundational perspective, doesn't seem to violate core Shariah principles. The ALGO token can be considered a valid property in Islamic law. Hence, they are permissible. However, their permissibility is also determined by their application and usage. Users should also ensure that their interactions, such as trading, investment, and holding, with ALGO are aligned with Islamic principles.

# 17. Name of the Protocol: Optimism

|  |  |
| --- | --- |
| Name of the Token: | OP |
| Official Website: | <https://www.optimism.io/> |
| Whitepaper link | <https://bitscreener.com/coins/optimism-ethereum/whitepaper> |
| CoinMarketCap Link: | <https://coinmarketcap.com/currencies/optimism-ethereum/> |
| CoinGecko Link: | <https://www.coingecko.com/en/coins/optimism> |
| Reviewer: | Dr Farrukh Habib |
| Review Date: | 25 October 2023 |
| Review Expiry: | 24 October 2024 |

## 17.1. Main Function of the Protocol and Token:

### 17.1.1. The Protocol:

Optimism is aimed at scaling Ethereum via Layer 2 solutions, employing Optimistic Rollups to enhance throughput and reduce costs while maintaining a strong alignment with Ethereum’s security and decentralization.

### 17.1.2. The Token:

There's no specific token associated with Optimism. The protocol is designed to work with Ethereum and its native token, ETH.

## 17.2. Shariah Description of the Protocol and Token:

The protocol’s design is in line with Islamic principles of decentralization, avoiding central authority, and potential usury issues. However, the absence of a native token makes it difficult to fully assess the Shariah compliance of a token in this context.

## 17.3. Shariah Opinion of the Protocol and Token:

Optimism, as a protocol, aligns with Islamic principles by promoting fair, transparent, and decentralized financial interactions. The lack of a specific token makes a comprehensive Shariah assessment challenging, but the protocol’s alignment with Ethereum suggests a favorable Shariah perspective, contingent on the Shariah compliance of Ethereum and its token, ETH.

# 18. Name of the Protocol: Dai

|  |  |
| --- | --- |
| Name of the Token: | DAI |
| Official Website: | <https://makerdao.com/ru/> |
| Whitepaper link | <https://api-new.whitepaper.io/documents/pdf?id=rJQKxiTxv> |
| CoinMarketCap Link: | <https://coinmarketcap.com/currencies/multi-collateral-dai/> |
| CoinGecko Link: | <https://www.coingecko.com/en/coins/dai> |
| Reviewer: | Dr Farrukh Habib |
| Review Date: | 25 October 2023 |
| Review Expiry: | 24 October 2024 |

## 18.1. Main Function of the Protocol and Token:

### 18.1.1. The Protocol

MakerDAO is a decentralized organization. The Maker Protocol employs a two-token system. The first being Dai, a collateral-backed stablecoin that offers stability. It is required to have any business or individual realize the advantages of digital money. Second, there is MKR, a governance token that is used by stakeholders to maintain the system and manage Dai. MKR token holders are the decision-makers of the Maker Protocol, supported by the larger public community and various other external parties.

It accepts any Ethereum-based asset as collateral to generate Dai given that it has been approved by MKR holders and has been given specific, corresponding Risk Parameters through the Maker decentralized governance process.

### 18.1.2. The Token

The Dai stablecoin is a decentralized, collateral-backed cryptocurrency soft-pegged to the US Dollar. Dai is held in cryptocurrency wallets or within platforms and is supported on Ethereum and other popular blockchains.

Users generate Dai by depositing collateral assets into Maker Vaults within the Maker Protocol. This is how Dai is entered into circulation and how users gain access to liquidity. Others obtain Dai by buying it from brokers or exchanges, or simply by receiving it as a means of payment.

Every Dai in circulation is directly backed by excess collateral, meaning that the value of the collateral is higher than the value of the Dai debt, and all Dai transactions are publicly viewable on the Ethereum blockchain.

It is important to differentiate between Multi-Collateral DAI and Single-Collateral DAI (SAI), an earlier version of the token that could only be collateralized by a single cryptocurrency; SAI also doesn’t support the DAI Savings Rate, which allows users to earn interest by holding DAI tokens.

## 18.2. Shariah Description of the Protocol and Token:

DAI is created out of loans made by the platform to the users. The interest on these loans is paid through the stability fee. This stability fee should not be confused with a maintenance fee or service fee for using the Maker Vault. It is clear that the crypto deposits are used as collateral for borrowing DAI. Hence, if the collateralization ratio drops below 150% the trader’s collateral will be liquidated to pay off their loan.

In this way, DAI is created out of an interest-based loan (transaction). Interest-based loans or transactions are not Shariah-compliant.

## 18.3. Shariah Opinion of the Protocol and Token:

Based on the above discussion, DAI is not Shariah-compliant. Therefore, it is not allowed to transact with or deal in it.

# 19. Name of the Protocol: Monero

|  |  |
| --- | --- |
| Name of the Token: | XMR |
| Official Website: | <https://www.getmonero.org/> |
| Whitepaper link | <https://github.com/monero-project/research-lab/blob/master/whitepaper/whitepaper.pdf> |
| CoinMarketCap Link: | <https://coinmarketcap.com/currencies/monero/> |
| CoinGecko Link: | <https://www.coingecko.com/en/coins/monero> |
| Reviewer: | Dr Farrukh Habib |
| Review Date: | 25 October 2023 |
| Review Expiry: | 24 October 2024 |

## 19.1. Main Function of the Protocol and Token:

### 19.1.1. The Protocol

Monero is a privacy-focused cryptocurrency that was created in 2014. It is based on the CryptoNote protocol, which uses several techniques to protect user privacy, including ring signatures, stealth addresses, and CoinJoin.

The main objective of Monero is to provide a cryptocurrency that is both private and secure. The protocol is designed to be resistant to government surveillance and censorship. Monero is also designed to be scalable, so that it can be used by many people.

### 19.1.2. The Token

The Monero token (XMR) is the native cryptocurrency of the Monero network. It is used to pay for transactions on the network, to secure the network through mining, and to participate in governance.

XMR is a Proof-of-Work (PoW) cryptocurrency. This means that it is mined by solving computationally difficult problems. The network is secured by a network of miners who compete to solve these problems.

XMR holders can also participate in governance by voting on proposals that affect the Monero network. These proposals can include changes to the network's protocol, the distribution of rewards, and other matters.

## 19.2. Shariah Description of the Protocol and Token:

The Monero protocol is a decentralized platform that allows users to send and receive Monero tokens without revealing their identity. It is designed to be secure, private, and scalable.

From a Shariah perspective, it does not directly involve any prohibited activities, such as interest, gambling, or excessive uncertainty. The protocol is also decentralized, which means that it is not subject to the control of any single entity. This makes it a more secure and trustworthy platform for conducting transactions.

The Monero token (XMR) is a utility token that is used to pay for fees on the Monero network, to secure the network through mining, and to participate in governance.

From a Shariah perspective, it is not a security or a derivative, and it does not represent any ownership interest in the Monero network. XMR is simply a tool that can be used to participate in the network and earn rewards.

Some people argue that Monero could be, and has been, used for illegal activities, such as, payment for illegal goods and services, money laundering and terrorist financing. Based on that the use of Monero for such purposes is definitely not Shariah-compliant, and such transactions and activities would be invalid and impermissible from the Shariah perspective. But it does not make Monero token itself a haram subject matter or object because these activities or transactions are not an integral part or component of the protocol itself.

## 19.3. Shariah Opinion of the Protocol and Token:

Based on the above analysis, the Monero protocol and token both can be considered halal if they are used in a Shariah-compliant manner. They are decentralized platforms that do not directly involve any prohibited activities. XMR is a payment token that can also be used to participate in the network and earn rewards.

# 20. Name of the Protocol: TRON

|  |  |
| --- | --- |
| Name of the Token: | TRX |
| Official Website: | <https://tron.network/> |
| Whitepaper link | <https://developers.tron.network/docs> |
| CoinMarketCap Link: | <https://coinmarketcap.com/currencies/tron/> |
| CoinGecko Link: | <https://www.coingecko.com/en/coins/tron> |
| Reviewer: | Dr Farrukh Habib |
| Review Date: | 25 October 2023 |
| Review Expiry: | 24 October 2024 |

## 20.1. Main Function of the Protocol and Token:

### 20.1.1. The Protocol

TRON is an open source public blockchain platform that supports smart contracts. TRON is compatible with Ethereum, which means that you can migrate smart contracts on Ethereum to TRON directly or with minor modifications. TRON relies on a unique consensus mechanism to realize the high TPS of the TRON network that is far beyond Ethereum, bringing developers a good experience of a faster transaction.

TRON's consensus mechanism is DPOS. TRON supports Http and gRPC APIs, and TRON also provides Ethereum-compatible JSON-RPC 2.0 APIs.

TRON network transactions need to pay bandwidth and energy fees, where bandwidth is a unit to measure the size of a transaction in bytes. The larger the transaction, the more bandwidth resources will be consumed. Energy is a unit that measures the amount of computation required for TVM to perform specific operations on the TRON network. Energy is calculated in the same way as Ethereum. The more instructions a transaction executes, the more energy it consumes, and the amount of energy consumed by different instructions are different.

### 20.1.2. The Token

TRX is the most important cryptocurrency on the TRON network and has a wide range of application scenarios. The rewards on the TRON network are issued in the form of TRX. Users can obtain resources and voting rights by staking TRX. TRX is also used as primary form of collateral in the DeFi lending market, as a unit of account in NFT marketplaces, and so on.

TRX is minted when a Super Representative produces a block on the TRON network. Every transaction on TRON consumes bandwidth or energy. When a user's bandwidth or energy is insufficient, they need to burn TRX to pay for the resources required for the transaction. The burning of TRX can not only help reduce the inflation of TRX, but also prevent accidental or malicious transactions from occupying all TRON network resources.

## 20.2. Shariah Description of the Protocol and Token:

The Tron protocol is a decentralized blockchain network that is not owned or operated by any single entity. This makes it a Shariah-compliant platform, as it does not involve any interest-based transactions or other prohibited activities.

The Tron token is a digital asset that is not subject to inflation. It can be used to pay transaction fees on the Tron network, and it can also be used to hold value. The Tron token is a Shariah-compliant asset, as it does not involve any interest-based transactions or other prohibited activities.

## 20.3. Shariah Opinion of the Protocol and Token:

The Tron protocol and TRX are both Shariah-compliant. The Tron protocol is a decentralized blockchain network that does not involve any interest-based transactions or other prohibited activities. TRX is a digital asset that is not subject to inflation and can be used to pay transaction fees on the Tron network or hold value. Therefore, the Tron protocol and TRX are both permissible (halal) in Islam.

# 21. Name of the Protocol: EOS (EOS)

|  |  |
| --- | --- |
| Name of the Protocol | EOS |
| Name of the Token: | EOS |
| Official Website: | https://eosnetwork.com/ |
| Official Documentation Link: | https://docs.eosnetwork.com/ |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/eos/ |
| CoinGecko Link: | https://www.coingecko.com/en/coins/eos |
| Initial Assessment Date | 30 August 2023 |
| Report Expiry Date | 29 August 2024 |

## 21.1. Main Function of the Protocol and Token:

### 21.1.1. The Protocol:

The EOS protocol, also known as EOS.IO, is a blockchain-based platform designed to support high-throughput decentralized applications (DApps). It operates on a delegated proof-of-stake (DPoS) system, where block producers are elected by token holders. The protocol aims to provide a platform for developers to build decentralized applications, enable high-throughput and low latency transactions, and secure the network through DPoS. EOS.IO claims to eliminate transaction fees and can conduct millions of transactions per second.

### 21.1.2. The Token:

The EOS token is the native cryptocurrency of the EOS network. Developers need only to hold EOS coins, rather than spending them, to use network resources and to build and run DApps. Token holders who aren't running apps can allocate or rent their bandwidth to others who need it. The EOS token is used for various purposes, including:

- Paying for transaction fees.

- Staking for block production.

- Voting on network proposals.

- Purchasing or renting access to network bandwidth and storage capacity on EOS.

- Participating in DPoS network consensus and on-chain governance.

- Accounting for value on native EOS-based applications.

## 21.2. Shariah Description of the Protocol and Token:

The EOS Network is fundamentally a decentralized platform designed to facilitate the development and operation of decentralized applications. From a Shariah perspective, it can be seen as a digital platform or marketplace, akin to a virtual space where various activities can be conducted.

The primary objective of the EOS Network is to provide a reliable and efficient environment for developers and users. There's no inherent element in its design or function that contradicts Shariah principles.

The EOS token can be characterized as asset or property in Islamic jurisprudence. It holds value, can be traded, and is recognized by the community. Thus, it can be a subject matter of a transaction.

As a digital asset, it bears similarities to contractual rights or intangible assets in Islamic commercial law. Its value is derived from the demand and utility within the EOS ecosystem.

**Potential Shariah Concerns**:

* **Interest (Usury)**: There's no indication from the provided sources that the EOS token or the EOS Network inherently involves interest or usurious transactions.
* **Gambling (قمار, ميسر)**: The basic function and design of the EOS token and network do not involve gambling. However, like any platform, it can potentially host applications that might involve gambling, which would be impermissible in Shariah.
* **Excessive Uncertainty (غرر)**: The inherent nature of the EOS token does not involve excessive uncertainty beyond the market risk of cryptos.
* **Unethical or Immoral Activities**: The EOS Network, being a decentralized platform, can host a wide range of applications. If any of these applications promote or involve unethical or immoral activities, they would be problematic from a Shariah perspective. However, the platform itself, in its foundational design, is neutral.

## 21.3. Shariah Opinion of the Protocol and Token:

In conclusion, the EOS Network, in its essence, is a digital platform that doesn't inherently contradict Shariah principles. The EOS token, as a digital asset with value and utility, can be seen as a valid property in Islamic law.

The permissibility of the protocol and tokens is also determined by their application and usage. Hence, the applications and activities conducted on the platform should be individually assessed for Shariah compliance. Moreover, users should also ensure that their interactions/transactions, such as trading, investment, and holding, with the protocol or token are aligned with Islamic principles as well.

# 22. Name of the Protocol: Stacks (STX)

|  |  |
| --- | --- |
| Name of the Protocol | Stacks |
| Name of the Token: | STX |
| Official Website: | https://www.stacks.co/ |
| Official Documentation Link: | <https://gaia.blockstack.org/hub/1AxyPunHHAHiEffXWESKfbvmBpGQv138Fp/stacks.pdf>; https://www.stacks.co/learn/introduction |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/stacks/ |
| CoinGecko Link: | https://www.coingecko.com/en/coins/stacks |
| Initial Assessment Date | 30 August 2023 |
| Report Expiry Date | 29 August 2024 |

## 22.1. Main Function of the Protocol and Token:

The Stacks protocol aims to bring smart contracts and decentralized applications (DApps) to Bitcoin, one of the most secure and widely used blockchains. It seeks to expand the functionality of Bitcoin beyond just a store of value or medium of exchange.

### 22.1.1. The Protocol:

The protocol has the following mechanics:

* **Proof-of-Transfer (PoX):** Stacks introduces a novel consensus mechanism called Proof-of-Transfer. Instead of miners spending electricity as in Proof-of-Work, they use Bitcoin to participate in the network. This mechanism ties the Stacks blockchain to Bitcoin's security.
* **Smart Contracts:** With the Clarity smart contract language, developers can write predictable smart contracts, ensuring that the contract's actions can be determined before execution. This is a departure from Turing-complete languages where outcomes can be uncertain until execution.
* **Decentralized Identity:** Stacks offers a decentralized identity solution, allowing users to have a single identity for DApps across the network, enhancing privacy and security.

### 22.1.2. The Token:

**Primary Usage:**

* **Fuel for Smart Contracts:** STX is used as "gas" to execute Clarity smart contracts on the Stacks blockchain.
* **Staking in PoX:** Users can lock (or "stack") their STX to support network security and consensus. In return, they earn Bitcoin as a reward, leveraging the PoX mechanism.

**Main Functions:**

* **Network Participation:** STX is essential for participating in the Stacks network, whether it's for executing smart contracts, staking in PoX, or voting in governance proposals.
* **Economic Incentive:** The token provides economic incentives to various network participants, ensuring the network remains secure and functional.

**Unique Features:**

* **Earn Bitcoin:** One of the standout features of STX is the ability for holders to earn Bitcoin by staking. This ties the Stacks ecosystem closer to the Bitcoin network and provides a unique value proposition for STX holders.
* **Non-Turing Complete Smart Contracts:** The use of the Clarity language means that STX is tied to smart contracts that prioritize predictability and security over flexibility.

## 22.2. Shariah Description of the Protocol and Token:

The Stacks protocol, at its core, is a technological platform designed to bring smart contracts and decentralized applications to Bitcoin. From a Shariah perspective, it can be viewed as a digital platform or service, similar to other technological services or platforms. Its primary function is to provide a framework for decentralized applications and smart contracts, without any inherent elements that contradict Islamic principles.

The STX token can be characterized as "مال متقوم" (valid property or asset) in Islamic jurisprudence. It has utility, can be owned, and has value; hence, it can be a subject of trade and transactions. As with other cryptocurrencies, it can be likened to digital commodities or assets, and its trade can be equated to the trade of other permissible commodities, provided the transaction does not involve prohibited elements.

**Prohibited Elements in Shariah:**

* **Interest (Usury/Riba):** There's no inherent design in the Stacks protocol or the STX token that promotes or involves interest-based transactions.
* **Gambling (قمار, ميسر):** The protocol and token do not inherently promote gambling. However, it's worth noting that any platform can potentially host applications that might involve gambling. It's the responsibility of users to avoid such applications.
* **Excessive Uncertainty (غرر):** While cryptocurrencies, in general, are volatile, this volatility is a market-driven factor and not an inherent design of the STX token. As such, the normal volatility does not constitute the prohibited excessive uncertainty in Islamic jurisprudence.
* **Unethical or Immoral Activities:** The protocol itself is neutral. However, like any technology, it can be used for both ethical and unethical purposes. Users and developers should ensure that the applications they build or engage with on the Stacks platform adhere to ethical and Shariah-compliant standards.

## 22.3. Shariah Opinion of the Protocol and Token:

In conclusion, from a foundational perspective, the Stacks protocol and the STX token do not inherently possess elements prohibited in Shariah. The STX token, as a digital asset with value and utility, can be seen as a valid property in Islamic law.

The permissibility of the protocol and tokens is also determined by their application and usage. Hence, the applications and activities conducted on the platform should be individually assessed for Shariah compliance. Moreover, users should also ensure that their interactions/transactions, such as trading, investment, and holding, with the protocol or token are aligned with Islamic principles as well.

# 23. Name of the Protocol: MultiversX (EGLD)

|  |  |
| --- | --- |
| Name of the Protocol | MultiversX |
| Name of the Token: | EGLD |
| Official Website: | https://multiversx.com/ |
| Official Documentation Link: | <https://files.multiversx.com/multiversx-whitepaper.pdf>; https://docs.multiversx.com/welcome/welcome-to-multiversx |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/multiversx-egld/ |
| CoinGecko Link: | https://www.coingecko.com/en/coins/multiversx |
| Initial Assessment Date | 30 August 2023 |
| Report Expiry Date | 29 August 2024 |

## 23.1. Main Function of the Protocol and Token:

MultiversX is a decentralized protocol that aims to provide a comprehensive solution for the creation, management, and trading of NFTs (Non-Fungible Tokens). The protocol is designed to be blockchain-agnostic, meaning it can operate across multiple blockchains, ensuring flexibility and wider reach.

### 23.1.1. The Protocol:

It mainly has NFT minting tools and DEX for NFTs. Its main objectives are:

* **NFT Creation and Management:** MultiversX offers tools and features that allow users to create, manage, and trade NFTs seamlessly. This includes the ability to mint NFTs, set up royalties, and manage metadata.
* **Cross-Chain Interoperability:** One of the standout features of MultiversX is its blockchain-agnostic nature. This ensures that NFTs created on one blockchain can be moved, traded, or utilized on another, breaking the barriers of individual blockchain ecosystems.
* **Decentralized Marketplace:** MultiversX provides a decentralized marketplace where users can list, buy, and sell NFTs. This marketplace is designed to be user-friendly, secure, and efficient.

### 23.1.2. The Token:

The MVX token is the native utility token of the MultiversX protocol. It plays a central role in the ecosystem, facilitating various operations and providing incentives.

**Primary Usage:**

* **Governance:** MVX token holders have the power to propose and vote on protocol upgrades, changes, and other governance-related matters. This ensures that the community has a say in the direction and development of the protocol.
* **Staking:** Users can stake MVX tokens to earn rewards. Staking also plays a role in securing the network and ensuring its smooth operation.
* **Payment:** MVX tokens can be used to pay for various services within the MultiversX ecosystem, such as minting fees, listing fees, and other transaction costs.

## 23.2. Shariah Description of the Protocol and Token:

**1. Shariah Nature of the MultiversX Protocol:**

The MultiversX protocol primarily focuses on the creation, management, and trading of NFTs in a decentralized manner. From a Shariah perspective, the act of creating and trading assets, including digital ones, is permissible as long as the assets have clear ownership and are not associated with prohibited activities.

**Islamic Legal Characterization:** The protocol can be characterized as a digital marketplace or platform (سوق إلكتروني) that facilitates trade and transactions. As long as the items being traded (NFTs) are Shariah-compliant and the trade is conducted fairly without deception, the platform's operations align with Islamic commercial principles.

**2. Islamic Legal Characterization of the MVX Token:**

The MVX token serves multiple functions, including governance, staking, and payment within the MultiversX ecosystem.

**Shariah Nature:** The MVX token can be viewed as a digital asset or property (مال متقوم) that holds value and can be traded. As long as the token is not used for prohibited activities and its primary functions do not violate Shariah principles, it can be considered a valid subject matter of a transaction.

**3. Prohibited Elements in the Protocol or Token:**

* **Interest (Usury):** There's no indication from the provided information that the protocol or the token inherently involves interest-based transactions.
* **Gambling (قمار, ميسر):** The primary functions of the protocol and token do not involve gambling. However, any speculative trading or using the token in games of chance would be considered non-compliant.
* **Excessive Uncertainty (غرر):** While the crypto market is volatile, this volatility, as mentioned, is a business risk and not the kind of excessive uncertainty prohibited in Shariah. The protocol's main functions do not seem to introduce inherent uncertainties.
* **Unethical or Immoral Activities:** The protocol itself is a tool, and its Shariah compliance depends on how it's used. If NFTs representing prohibited content were traded, that would be non-compliant. Users and creators should ensure that the content of NFTs aligns with Islamic ethics.

## 23.3. Shariah Opinion of the Protocol and Token:

In conclusion, the MultiversX protocol and MVX token, in their core design and functions, do not appear to have elements that are inherently prohibited in Shariah. However, the actual Shariah compliance of activities on the platform would depend on the nature of the NFTs being traded and how the token is used.

Moreover, users should also ensure that their interactions/transactions, such as trading, investment, and holding, with the protocol or token are aligned with Islamic principles as well.

# 24. Name of the Protocol: Pax Dollar (USDP)

|  |  |
| --- | --- |
| Name of the Protocol | Pax Dollar |
| Name of the Token: | USDP |
| Official Website: | https://paxos.com/usdp/ |
| Official Documentation Link: | https://help.paxos.com/hc/en-us |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/paxos-standard/ |
| CoinGecko Link: | https://www.coingecko.com/en/coins/pax-dollar |
| Initial Assessment Date | 30 August 2023 |
| Report Expiry Date | 29 August 2024 |

## 24.1. Main Function of the Protocol and Token:

**1. Protocol Description:**

* **Objective:** Paxos aims to modernize finance by mobilizing assets at the speed of the internet. The company's mission is to enable the movement of any assets, anytime, anywhere in a trustworthy manner. Paxos is a regulated financial institution that digitizes and mobilizes assets.
* **Mechanics:** Paxos operates as a trust company, meaning it is a regulated entity that can hold customer funds. It has received a charter from the New York State Department of Financial Services, which allows it to offer its services in a compliant manner. The company uses blockchain technology to ensure that all transactions are transparent, immutable, and secure.
* **Products/Applications:** Beyond the USDP stablecoin, Paxos offers a suite of products including crypto trading services, custody solutions, and private blockchains for financial institutions. They also provide solutions for PayPal and Revolut, enabling these platforms to offer crypto services to their users.

**2. Token Description (USDP):**

* **Primary Usage:** USDP, formerly known as PAX or Paxos Standard, is a stablecoin that is pegged 1:1 to the US Dollar. This means that for every USDP token in circulation, there is a corresponding US dollar held in reserve by Paxos. The primary use of USDP is to offer a stable digital asset that can be used in the volatile crypto markets. It provides a digital equivalent to the US dollar on the blockchain.
* **Main Functions:**
  + **Stability:** USDP offers a refuge from the often-volatile crypto markets. Traders and investors can convert their assets into USDP during times of high volatility to preserve value.
  + **Transparency:** Every USDP token is backed by a corresponding US dollar, and the reserves are regularly audited to ensure transparency and trust.
  + **Instant Transactions:** USDP can be transferred between any two parties instantly, providing a fast method of transferring a stable value across the globe.
  + **Redemption:** Users can always redeem USDP for the equivalent amount in US dollars, ensuring that the token maintains its peg.
* **Unique Features:**
  + **Regulated:** Paxos, the company behind USDP, operates with a charter from the NYDFS, making it one of the few regulated entities in the crypto space.
  + **Audited Reserves:** The reserves backing USDP are regularly audited by external firms, ensuring transparency and trust in the token's value.
  + **Integration with Traditional Finance:** Paxos bridges the gap between traditional finance and the digital world, offering products that are familiar to financial institutions while leveraging the benefits of blockchain technology.

## 24.2. Shariah Description of the Protocol and Token:

**1. Shariah Nature of the Platform or Protocol:**

Paxos operates as a trust company, ensuring that every USDP token is backed by a corresponding US dollar. From a Shariah perspective, the nature of the platform aligns with the principles of trustworthiness and transparency. The platform's primary function is to provide a stable digital representation of a physical asset (the US dollar).

**2. Islamic Legal Characterization of the Token:**

The USDP token represents a digital equivalent of a tangible asset, the US dollar. In Shariah, this can be seen as a form of "مال متقوم" (valid property or asset). The token acts as a digital certificate of ownership or claim on the USD in the reserves.

**3. Prohibited Elements in Shariah:**

* **Interest (Usury):** Paxos does not offer interest on the USDP token, and its primary function is not to generate profit through lending or borrowing, making it free from the element of "Riba" (usury).
* **Gambling (قمار, ميسر):** The USDP token is not designed for speculative purposes, and its value is stable, pegged to the US dollar. Thus, it does not involve elements of gambling or excessive speculation.
* **Excessive Uncertainty (غرر):** While the general crypto market can be volatile, USDP is a stablecoin, and its value remains consistent with the US dollar. The inherent design of USDP ensures that it does not have excessive uncertainty by its nature. External market factors affecting other cryptocurrencies do not impact USDP in the same way.
* **Unethical or Immoral Activities:** Paxos operates within a regulated framework and emphasizes transparency and compliance. There's no indication from the provided sources that the protocol or token is involved in any unethical or immoral activities.

## 24.3. Shariah Opinion of the Protocol and Token:

In conclusion, from a foundational perspective, the Paxos do not inherently possess elements prohibited in Shariah. The Paxos token, as a tokenized representation of USD, can be seen as a valid property in Islamic law.

Moreover, users should also ensure that their interactions/transactions, such as trading, investment, and holding, with the Paxos are aligned with Islamic principles as well.

# 25. Name of the Protocol: True USD (TUSD)

|  |  |
| --- | --- |
| Name of the Protocol | True USD |
| Name of the Token: | TUSD |
| Official Website: | https://tusd.io/ |
| Official Documentation Link: | https://tusd.io/about |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/trueusd/ |
| CoinGecko Link: | https://www.coingecko.com/en/coins/true-usd |
| Initial Assessment Date | 30 August 2023 |
| Report Expiry Date | 29 August 2024 |

## 25.1. Main Function of the Protocol and Token:

### 25.1.1. The Protocol

TrueUSD aims to provide a reliable and transparent fiat-backed stablecoin. According to the website, it is the first USD-pegged stablecoin to deploy real-time attestations for its underlying reserves by independent third-party institutions. This ensures that for every TUSD token in circulation, there is a corresponding US Dollar held in reserve, providing a 1:1 peg to the US Dollar.

One of the core values of TrueUSD is transparency. They utilize advanced auditing and attestation mechanisms to enhance the transparency of TUSD. Real-time audit reports are provided to users on its website, allowing them to monitor the reserves at any time.

### 25.1.2. The Token

TUSD serves as a stablecoin, meaning its value is pegged to a stable asset, in this case, the US Dollar. It provides a digital representation of the US Dollar on the blockchain, allowing for quick and efficient transactions without the volatility commonly associated with other cryptocurrencies.

## 25.2. Shariah Description of the Protocol and Token:

TrueUSD is a platform that offers a fiat-backed stablecoin, aiming to provide a transparent and reliable representation of the US Dollar on the blockchain. In Islamic jurisprudence, platforms facilitating technological advancements and financial tools are generally viewed as neutral (مباح).

TUSD can be viewed as "mal" (مال) or property/wealth in Islamic law, given its representation of a stable and well-recognized fiat currency. It qualifies as a valid subject for transactions.

**Prohibited Elements in Shariah:**

* **Interest (Usury) (ربا)**: TrueUSD does not inherently involve or promote interest-based transactions. It represents the US Dollar and does not yield interest.
* **Gambling (قمار, ميسر)**: The protocol and token do not inherently promote gambling. However, users should ensure their use of TUSD doesn't engage in gambling activities.
* **Excessive Uncertainty (غرر)**: Being a stablecoin, TUSD is designed to have minimal volatility, and its value is pegged to the US Dollar. Thus, the usual uncertainties associated with cryptocurrencies are significantly reduced.
* **Unethical or Immoral Activities**: The decentralized nature means TUSD can be used for various purposes. Users should ensure their use aligns with Islamic ethical standards.

## 25.3. Shariah Opinion of the Protocol and Token:

In conclusion, from a Shariah perspective, TUSD is Shariah compliant. However, the permissibility is also determined by its application and usage. Users should also ensure that their interactions, such as trading, investment, and holding, with this asset are aligned with Islamic principles.

# 26. Name of the Protocol: Aptos (APT)

|  |  |
| --- | --- |
| Name of the Protocol | Aptos |
| Name of the Token: | APT |
| Official Website: | https://aptoslabs.com/ |
| Official Documentation Link: | https://aptos.dev/concepts |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/aptos/ |
| CoinGecko Link: | https://www.coingecko.com/en/coins/aptos |
| Initial Assessment Date | 30 August 2023 |
| Report Expiry Date | 29 August 2024 |

## 26.1. Main Function of the Protocol and Token:

### 26.1.1. The Protocol

Aptos is a Layer 1 Proof-of-Stake (PoS) blockchain that employs a novel smart contract programming language called Move, a Rust-based programming language that was independently developed by Meta (formerly Facebook)’s Diem blockchain engineers.

Aptos’s vision is a blockchain that brings mainstream adoption to web3 and empowers an ecosystem of DApps to solve real-world user problems.

The Aptos team claims that its network can process over 150,000 tps. By comparison, Ethereum’s mainnet tps is around 12 to 15. This high transaction throughput is possible through a parallel execution engine (Block-STM) — a byzantine fault-tolerant (BFT) PoS consensus mechanism.

### 26.1.2. The Token

Token holders stake APT tokens in validators, and this allows validators to have a consensus voting weight which is directly correlated to the number of tokens staked. The consensus voting weight allows a validator to participate in consensus and blockchain governance.

The Aptos (APT) token is a utility and governance token based on the Aptos token standard.

## 26.2. Shariah Description of the Protocol and Token:

The Aptos protocol, at its core, is a technological platform designed to facilitate specific blockchain-based functions and applications. In Islamic jurisprudence, technological platforms are generally viewed as neutral (مباح) tools.

APT can be viewed as "mal" (مال) or property/wealth in Islamic law, given its utility within the Aptos ecosystem and its role in governance. It qualifies as a valid subject for transactions.

**Prohibited Elements in Shariah:**

* **Interest (Usury) (ربا)**: From the information provided, there's no indication that the Aptos protocol or APT token inherently involves or promotes interest-based transactions.
* **Gambling (قمار, ميسر)**: The protocol and token do not inherently promote gambling. However, users should ensure their use of APT doesn't engage in gambling activities.
* **Excessive Uncertainty (غرر)**: While cryptocurrencies can be volatile, the inherent functions of the APT token, such as staking and governance, do not seem to introduce excessive uncertainty beyond the typical business risks associated with digital assets.
* **Unethical or Immoral Activities**: The decentralized nature of blockchain means APT can be used for various purposes. Users should ensure their use aligns with Islamic ethical standards.

## 26.3. Shariah Opinion of the Protocol and Token:

In conclusion, from a Shariah perspective, Aptos and APT token are Shariah compliant. However, their permissibility is also determined by their application and usage. Users should also ensure that their interactions, such as trading, investment, and holding, with APT tokens are aligned with Islamic principles.

# 27. Name of the Protocol: Hedera (HBAR)

|  |  |
| --- | --- |
| Name of the Protocol | Hedera |
| Name of the Token: | HBAR |
| Official Website: | https://hedera.com/ |
| Official Documentation Link: | https://docs.hedera.com/hedera/ |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/hedera/ |
| CoinGecko Link: | https://www.coingecko.com/en/coins/hedera |
| Initial Assessment Date | 30 August 2023 |
| Report Expiry Date | 29 August 2024 |

## 27.1. Main Function of the Protocol and Token:

### 27.1.1. The Protocol

Hedera is a decentralized, open-source, proof-of-stake public ledger that employs the leaderless, asynchronous Byzantine Fault Tolerance (aBFT) hashgraph consensus algorithm.

It is governed by a decentralized council consisting of leading enterprises, universities, and web3 projects globally.

Hedera aims to offer a performance-optimized Ethereum Virtual Machine (EVM) for smart contracts, native tokenization, and consensus service APIs.

### 27.1.2. The Token

HBAR is Hedera's native cryptocurrency. It is used for securing the network, paying for transaction fees, and participating in consensus.

**Main Functions and Unique Features:**

* **Security:** HBAR tokens play a crucial role in securing the Hedera network. The more HBAR staked or held by nodes, the more secure the network becomes.
* **Transaction Fees:** HBAR is used to pay for transaction fees on the Hedera network, ensuring that users compensate for the computational and storage resources they consume.
* **Consensus Participation:** HBAR holders can use their tokens to influence consensus, which determines the order of transactions.
* **Low & Fixed Fees:** Hedera ensures that the fees for transactions are low and predictable.
* **Fast Transactions:** Transactions on Hedera settle with finality in just 3-5 seconds.
* **Scalability:** Hedera can handle up to 10,000 transactions per second (TPS), making it suitable for high-demand applications.

## 27.2. Shariah Description of the Protocol and Token:

Hedera Protocol is fundamentally a decentralized ledger technology that provides a platform for various applications, including tokenization, smart contracts, and file storage. From a Shariah perspective, it can be viewed as a digital platform or infrastructure that facilitates specific services and transactions.

The primary objective of Hedera is not to engage in activities that are inherently prohibited (haram) in Islam. Instead, it offers a technological solution for various applications in the digital realm.

HBAR, as the native token of Hedera, serves multiple purposes, including transaction fees, network security, and consensus participation. In Islamic jurisprudence, it can be characterized as "مال متقوم" (valid property) since it has perceived value, utility, and can be traded or exchanged.

As a digital asset, HBAR can be a subject matter of a transaction, similar to other forms of digital assets or commodities in Islamic commercial law.

**Potential Shariah Concerns:**

* **Interest (Usury):** There's no inherent interest-bearing component in the Hedera protocol or the HBAR token. Its transactions and staking rewards do not equate to the prohibited form of interest (riba).
* **Gambling (قمار, ميسر):** Hedera's primary functions do not involve gambling. However, like any other technology, if it's used to facilitate gambling activities, that specific use-case would be non-compliant with Shariah.
* **Excessive Uncertainty (غرر):** While the crypto market is volatile, this volatility is akin to business risks associated with other commodities and does not fall under the prohibited excessive uncertainty in Shariah.
* **Unethical or Immoral Activities:** The protocol itself is neutral. However, if it's used to facilitate or promote unethical or immoral activities, that specific use would be against Islamic principles.

## 27.3. Shariah Opinion of the Protocol and Token:

In conclusion, from a foundational perspective, the Hedera protocol and the HBAR token do not inherently violate core Shariah principles. Hence, they are Shariah compliant. However, their permissibility is also determined by their application and usage. Users should also ensure that their interactions, such as trading, investment, and holding, with HBAR tokens are aligned with Islamic principles.

# 28. Name of the Protocol: Arbitrum (ARB)

|  |  |
| --- | --- |
| Name of the Protocol | Arbitrum |
| Name of the Token: | ARB |
| Official Website: | https://arbitrum.io/ |
| Official Documentation Link: | https://docs.arbitrum.io/intro |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/arbitrum/ |
| CoinGecko Link: | https://www.coingecko.com/en/coins/arbitrum |
| Initial Assessment Date | 30 August 2023 |
| Report Expiry Date | 29 August 2024 |

## 28.1. Main Function of the Protocol and Token:

### 28.1.1. The Protocol

Arbitrum is a suite of Ethereum Layer-2 scaling solutions designed to scale Ethereum. Its primary goal is to make transactions on Ethereum faster and cheaper. The protocol allows for the execution of all activities one would typically do on Ethereum, such as deploying smart contracts and using Web3 applications.

**Mechanics and Products:**

* **Arbitrum Rollup:** This is the flagship product of Arbitrum. It's an Optimistic rollup protocol that inherits Ethereum-level security. The Rollup chain runs as a sub-module within Ethereum. Instead of requiring Ethereum nodes to process every transaction, Ethereum optimistically assumes that activities on Arbitrum are following the proper rules. If a violation occurs, it can be disputed back on L1 (Layer 1), ensuring that fraud will be proven, the invalid claim disregarded, and the malicious party penalized.
* **Arbitrum AnyTrust:** Unlike the Rollup, AnyTrust chains don't have the same decentralization or trustlessness. They offer lower fees because they manage data off-chain. In the case of a challenge, an AnyTrust chain reverts back to “rollup mode”. The security assumption here is that at least 2 of the committee members are honest.
* **Arbitrum Orbit:** This allows users to launch their own chain into an interconnected universe of customizable chains that settle to Arbitrum One or Nova.
* **Arbitrum Nitro:** This is the technical stack that powers all Arbitrum products. It uses a fork of Geth, the most widely used Ethereum implementation, with modifications to transform it into a trustless layer 2.

### 28.1.2. The Token

There isn't a specific mention of an "Arbitrum Token." However, considering the context of the Arbitrum ecosystem, it's likely that there are tokens associated with the platform, especially for governance or staking purposes. Tokens in such Layer-2 solutions typically serve as governance tokens, staking tokens, or utility tokens to pay for transaction fees or incentivize validators.

## 28.2. Shariah Description of the Protocol and Token:

Arbitrum, as a Layer-2 scaling solution for Ethereum, is fundamentally a technological tool designed to enhance the efficiency of blockchain transactions. From a Shariah perspective, tools and technologies that facilitate business or transactions are generally considered neutral. Their permissibility is often contingent upon their usage.

The protocol operates based on predefined rules and smart contracts. As long as these contracts do not contain elements that are explicitly prohibited in Islam, such as unjust enrichment or exploitation, they can be seen as permissible.

**Potential Shariah Concerns:**

* **Interest (Usury):** There's no indication from the provided information that the Arbitrum protocol or its associated token inherently involves interest-bearing transactions.
* **Gambling (قمار, ميسر):** The primary function of Arbitrum is to enhance transaction efficiency on Ethereum. It doesn't seem to involve any gambling elements.
* **Excessive Uncertainty (غرر):** The key concern would be if the token or protocol intentionally introduces uncertainty or ambiguity, which doesn't seem to be the case for Arbitrum.
* **Unethical or Immoral Activities:** The protocol's primary purpose is technological. However, like any technology, its permissibility would be contingent upon its use. If it's used to facilitate prohibited activities, then such usage would be impermissible.

## 28.3. Shariah Opinion of the Protocol and Token:

In conclusion, from a Shariah perspective, the Arbitrum protocol, being a technological tool, is neutral. The token, if it represents a clear value and purpose, can be considered a valid property in Islamic jurisprudence. Therefore, they are shariah compliant. However, their permissibility is also determined by their application and usage. Users should also ensure that their interactions, such as trading, investment, and holding, with ARB are aligned with Islamic principles.

# 29. Name of the Protocol: Quant (QNT)

|  |  |
| --- | --- |
| Name of the Protocol | Quant |
| Name of the Token: | QNT |
| Official Website: | https://quant.network/ |
| Official Documentation Link: |  |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/quant/ |
| CoinGecko Link: | https://www.coingecko.com/en/coins/quant |
| Initial Assessment Date | 30 August 2023 |
| Report Expiry Date | 29 August 2024 |

## 29.1. Main Function of the Protocol and Token:

### 29.1.1. The Protocol

Quant Network aims to be the foundation of the blockchain economy. Their primary objective is to unlock the benefits of tokenization on the blockchain for various assets, from currencies to carbon credits. By doing so, they envision creating an environment where ownership is immutable, provenance is traceable, and asset use is more manageable.

**Mechanics & Products:**

* **Interoperability:** Quant believes in a future where finance is built on interconnected networks, allowing smart money, tokenized assets, and information to flow freely between them.
* **Ease of Use:** Their platform, Overledger, is designed to be user-friendly, enabling blockchain-based use cases without requiring specialist knowledge.
* **Security:** With a strong emphasis on cybersecurity, Quant ensures that security is their top priority.
* **Resilience:** Quant's technology is engineered to be resilient, providing opportunities in a volatile world and ensuring protection against risks.
* **Programmability & Adaptability:** Quant emphasizes the power of tokenized money, which can have embedded controls for its behavior. Their technology also allows for easy deployment of new tokens, adaptation of smart contracts, and movement of tokens across chains.

### 29.1.2. The Token

The native ERC-20 QNT token is essential for developers who want to build on the Overledger platform. Developers pay for licenses using fiat money, and the Quant Treasury sets aside an equivalent amount of QNT tokens, which are locked for 12 months. Additionally, the QNT token is used by Overledger clients to pay for read and write activity and transferring assets across chains and DLT systems.

## 29.2. Shariah Description of the Protocol and Token:

The primary objective of Quant is to provide interoperability among various distributed ledger technologies (DLTs). From a Shariah perspective, facilitating interoperability and offering tools for technological advancement can be seen as a permissible activity, as it does not inherently involve any prohibited elements.

Quant Network offers a service, and in Islamic jurisprudence, providing a service (especially one that doesn't involve prohibited elements) is generally permissible.

QNT tokens have value and can be traded, making them a form of valid property in Islamic jurisprudence. Since QNT tokens can be bought, sold, and used within the Quant ecosystem, they can be considered a valid subject matter of transactions in Shariah.

**Potential Prohibitions in Shariah:**

* **Interest (Usury/Riba):** There's no indication from the provided information that the Quant Network or QNT token involves interest-based transactions.
* **Gambling (قمار, ميسر):** The primary function of QNT is utility-based, not speculative. Therefore, it doesn't inherently involve gambling.
* **Excessive Uncertainty (غرر):** While the crypto market is volatile, the inherent functions of QNT are clear. The normal volatility of cryptocurrencies is a business risk, which is acceptable in Shariah.
* **Unethical or Immoral Activities:** Based on the provided information, Quant Network aims to provide technological solutions and doesn't engage in activities that are unethical or immoral from a Shariah perspective.

## 29.3. Shariah Opinion of the Protocol and Token:

From a Shariah perspective, the Quant Network's primary functions and the utility of the QNT token seem to align with permissible activities in Islamic jurisprudence. However, their permissibility is also determined by their application and usage. Users should also ensure that their interactions, such as trading, investment, and holding, with QNT are aligned with Islamic principles.

# 30. Name of the Protocol: Algorand (ALGO)

|  |  |
| --- | --- |
| Name of the Protocol | Algorand |
| Name of the Token: | ALGO |
| Official Website: | https://algorand.com/ |
| Official Documentation Link: | https://algorand.com/technology/white-papers |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/algorand/ |
| CoinGecko Link: | https://www.coingecko.com/en/coins/algorand |
| Initial Assessment Date | 30 August 2023 |
| Report Expiry Date | 29 August 2024 |

## 30.1. Main Function of the Protocol and Token:

### 30.1.1. The Protocol

Algorand is a decentralized blockchain-based network designed to support a broad spectrum of applications. The primary goal of Algorand is to offer systems that are secure, scalable, and efficient, which are essential attributes for real-world applications. Algorand aims to establish new forms of trust by ensuring that these systems are self-sustaining. The protocol is unique in that it is designed to be a truly democratic and efficient way to implement a public ledger. Unlike traditional proof-of-work systems, Algorand operates on a negligible amount of computation and produces a transaction history that is highly unlikely to fork.

The platform has introduced several innovations, such as the Pixel multi-signature scheme optimized for blockchains, the Vault cryptocurrency design that minimizes storage and bootstrapping costs, and a Byzantine Agreement protocol that ensures consensus among users on the next set of transactions.

### 30.1.2. The Token

The Algorand token, known as ALGO, serves as the native cryptocurrency of the Algorand network. It is used to facilitate transactions within the ecosystem. ALGO tokens are also essential for participating in the Algorand network's consensus mechanism. Holders of ALGO can participate in the network's decision-making process, thereby ensuring the platform's decentralization.

One of the standout features of the ALGO token is its role in Algorand's Pure Proof-of-Stake (PPoS) consensus mechanism. This approach ensures that every user's influence on the choice of a new block is proportional to their stake, without the need for the energy-intensive calculations required in proof-of-work systems.

## 30.2. Shariah Description of the Protocol and Token:

Algorand, as a blockchain platform, is fundamentally a digital infrastructure that facilitates decentralized transactions and applications. From a Shariah perspective, it can be viewed as a digital tool or medium, similar to how traditional financial systems and tools are viewed. The core function of the protocol is to ensure secure, transparent, and efficient transactions.

The Algorand token (ALGO) can be characterized as "مال متقوم" (valid property) in Islamic jurisprudence. It possesses value, can be owned, and can be used in transactions, making it a valid subject matter of trade. The token's utility and its role in facilitating activities on the Algorand network further cement its status as a valuable asset.

**Prohibited Elements in Shariah:**

* **Interest (Usury):** There's no inherent interest or usury associated with the ALGO token or the Algorand protocol.
* **Gambling (قمار, ميسر):** The Algorand protocol itself doesn't promote or facilitate gambling.
* **Excessive Uncertainty (غرر):** The inherent functions of the ALGO token or the Algorand protocol do not introduce excessive uncertainty.
* **Unethical or Immoral Activities:** The protocol itself is neutral and doesn't promote unethical or immoral activities. However, users must ensure that the applications they engage with on the platform are in line with Islamic ethics.

## 30.3. Shariah Opinion of the Protocol and Token:

In conclusion, the Algorand protocol, from a foundational perspective, doesn't seem to violate core Shariah principles. The ALGO token can be considered a valid property in Islamic law. Hence, they are permissible. However, their permissibility is also determined by their application and usage. Users should also ensure that their interactions, such as trading, investment, and holding, with ALGO are aligned with Islamic principles.

# 31. Name of the Protocol: XLM (Stellar)

|  |  |
| --- | --- |
| Name of the Protocol | Stellar |
| Name of the Token: | Lumen (XLM) |
| Official Website: | https://www.stellar.org/ |
| Official Documentation Link: | https://www.stellar.org/learn/intro-to-stellar |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/stellar/ |
| CoinGecko Link: | https://www.coingecko.com/en/coins/stellar |
| Initial Assessment Date | 30 August 2023 |
| Report Expiry Date | 29 August 2024 |

## 31.1. Main Function of the Protocol and Token:

### 31.1.1. The Protocol

Stellar is a decentralized, open-source protocol for digital currency to fiat currency transfers. Its primary goal is to allow for cross-border transactions between any pair of currencies. This includes facilitating microtransactions and remittances, mobile branches, and mobile money services.

Stellar operates using a consensus algorithm rather than mining, which means faster transaction times and less energy consumption. It uses the Stellar Consensus Protocol (SCP), which is an alternative to proof-of-work and provides decentralized control, low latency, flexible trust, and asymptotic security.

Stellar's main product is its platform that allows for the creation of custom ICOs. It also offers a decentralized exchange where its digital currency, Lumens (XLM), can be traded.

### 31.1.2. The Token

Lumens (XLM) are the native asset of the Stellar network. Lumens are used to facilitate multi-currency transactions and act as a bridge between different currencies on the Stellar network. They also serve as an anti-spam role in the network. Each transaction has a minor fee (0.00001 XLM) associated with it, which prevents users with malicious intentions from flooding the network (DoS attacks).

* Stellar's consensus protocol ensures that transactions are swift and efficient.
* Lumens can be used in a variety of financial services, including remittances, mobile money, and micropayments.
* Stellar offers a decentralized exchange where XLM can be traded for other assets.

## 31.2. Shariah Description of the Protocol and Token:

The Stellar protocol, at its core, is a technological platform designed to facilitate cross-border transactions and remittances. From a Shariah perspective, the platform can be seen as a tool or medium (وسيلة) to facilitate trade and transactions.

The essence of facilitating trade and transactions is permissible (مباح) in Islam as long as the underlying transactions do not involve anything prohibited.

Lumens (XLM) can be characterized as "مال متقوم" (valid property) in Islamic jurisprudence. For an asset to be considered valid property, it should possess value and utility. Lumens, being the native asset of the Stellar network, have both value (as they can be traded for other assets or fiat currencies) and utility (as they facilitate transactions on the Stellar network). Therefore, they can be considered a subject matter of a transaction.

* **Interest (Usury) (ربا):** The Stellar protocol itself does not inherently involve interest or usury. However, if the platform is used to facilitate transactions that involve interest, such as lending and borrowing with interest, it would be against Shariah principles.
* **Gambling (قمار, ميسر):** The protocol does not inherently promote gambling. However, if tokens or assets created on the Stellar platform are used for gambling purposes, then such activities would be non-compliant with Shariah.
* **Unethical or Immoral Activities:** The Stellar protocol, in its essence, is neutral. It's a tool that can be used for both ethical and unethical activities. If the platform is used for transactions involving prohibited items in Islam (e.g., alcohol, pork) or immoral services, then such transactions would be non-compliant with Shariah.

## 31.3. Shariah Opinion of the Protocol and Token:

In conclusion, both the Stellar protocol and its native token Lumens are halal in their inherent nature. However, their Shariah compliance is conditional upon how they are used. It's essential for users to ensure that their interactions with Stellar and Lumens align with Islamic principles.

# 32. Name of the Protocol: Internet Computer (ICP)

|  |  |
| --- | --- |
| Name of the Protocol | Internet Computer |
| Name of the Token: | ICP |
| Official Website: | https://internetcomputer.org/ |
| Official Documentation Link: | https://internetcomputer.org/basics?source=nav |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/internet-computer/ |
| CoinGecko Link: | https://www.coingecko.com/en/coins/internet-computer |
| Initial Assessment Date | 30 August 2023 |
| Report Expiry Date | 29 August 2024 |

## 32.1. Main Function of the Protocol and Token:

### 32.1.1. The Protocol

The Internet Computer protocol aims to revolutionize the traditional internet infrastructure. It aspires to function as a decentralized global computer, eliminating the need for centralized platforms and services. By doing so, it seeks to provide a more open, secure, and user-centric online environment.

The protocol is powered by a unique consensus mechanism and a network of independent data centers worldwide. These data centers run specialized hardware that supports the Internet Computer's operations. The protocol's design allows it to scale its capacity based on demand, ensuring efficient and seamless performance.

The Internet Computer offers a range of products, including:

* **Canister SDK**: Developers can use this to build decentralized applications directly on the Internet Computer.
* **Motoko**: A new programming language optimized for the Internet Computer.
* **Dfinity Explorer**: Allows users to view activity on the Internet Computer network.

**Unique Features:**

* **Chain Key Technology:** This ensures that smart contract computations are completed quickly and efficiently.
* **Network Nervous System (NNS):** An open algorithmic governance system that manages the network without human intervention.
* **End-to-End Decentralization:** The Internet Computer enables the complete decentralization of platforms, applications, and systems.

### 32.1.2. The Token

The ICP token is the native utility token of the Internet Computer. It is used to facilitate various operations within the network. Token holders can lock their ICP to create "neurons" that participate in the Network Nervous System, allowing them to vote on proposals and earn rewards.

**Main Functions**:

* **Governance**: ICP tokens play a crucial role in the governance of the Internet Computer through the Network Nervous System. Token holders can influence the direction and decisions of the network.
* **Fuel for Computation**: Developers use ICP tokens to pay for computational resources when deploying applications on the Internet Computer.
* **Staking and Rewards**: By staking ICP tokens, users can earn rewards based on their participation and contribution to the network's governance.

## 32.2. Shariah Description of the Protocol and Token:

The Internet Computer protocol, at its core, is a technological infrastructure designed to decentralize the internet and promote a more open and user-centric online environment. From a Shariah standpoint, tools or platforms that facilitate technological advancements and innovations are generally neutral. Their permissibility is determined by their application and use.

The ICP token, being a digital asset with value and utility, can be considered as "valid property" (مال متقوم) in Islamic jurisprudence. It serves multiple functions, including governance, payment for computational resources, and staking. Therefore, it is a form of money which has staking mechanism as well.

**Prohibited Elements in Shariah:**

* **Interest (Usury) (ربا)**: There's no indication from the provided information that the Internet Computer protocol or the ICP token inherently involves interest or usury. However, users and developers must ensure that applications built on the platform or transactions involving the ICP token do not engage in interest-bearing activities.
* **Gambling (قمار, ميسر)**: The protocol and token themselves do not promote gambling. Still, as with any platform, there's potential for gambling-related applications to be developed. Users should avoid such applications to ensure Shariah compliance.
* **Excessive Uncertainty (غرر)**: The protocol or token does not seem to introduce any additional elements of excessive uncertainty beyond the standard risks associated with cryptocurrencies.
* **Unethical or Immoral Activities**: The protocol's decentralized nature means that it can host a wide range of applications. Users should be discerning and avoid applications or services that promote unethical or immoral activities as defined by Islamic principles.

## 32.3. Shariah Opinion of the Protocol and Token:

In conclusion, from a Shariah perspective, the Internet Computer protocol and the ICP token are neutral tools; hence, users can trade, invest, or hold the tokens. Their permissibility in Islam depends on their application and use. Users and developers should ensure that their interactions with the protocol and token align with Islamic ethical and moral standards.

# 33. Name of the Protocol: Bitcoin Cash (BCH)

|  |  |
| --- | --- |
| Name of the Protocol | Bitcoin Cash |
| Name of the Token: | BCH |
| Official Website: | <https://bch.info/en/>; https://bitcoincash.org/; |
| Official Documentation Link: |  |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/bitcoin-cash/ |
| CoinGecko Link: | https://www.coingecko.com/en/coins/bitcoin-cash |
| Initial Assessment Date | 30 August 2023 |
| Report Expiry Date | 29 August 2024 |

## 33.1. Main Function of the Protocol and Token:

### 33.1.1. The Protocol

Bitcoin Cash (BCH) was created to address the scalability issues faced by Bitcoin. It aims to be a peer-to-peer electronic cash system that facilitates fast, low-fee transactions. Bitcoin Cash's vision is to bring sound money to the world, fulfilling the original promise of Bitcoin as "Peer-to-Peer Electronic Cash."

Bitcoin Cash operates on a decentralized network of nodes. It increased the block size limit, allowing more transactions to be processed in each block. This change aims to make the network faster and more scalable.

**Unique Features**:

* **Low Fees**: Bitcoin Cash transactions typically have lower fees compared to Bitcoin, making it more suitable for everyday transactions.
* **Fast Transactions**: Due to the increased block size, BCH can process more transactions quickly.
* **Decentralized Development**: Multiple independent teams provide software implementations, ensuring no single group or project can control Bitcoin Cash.

### 33.1.2. The Token

Bitcoin Cash (BCH) is the native cryptocurrency of the Bitcoin Cash network. It is used for peer-to-peer transactions, both large and small, across the globe. It can also be used for merchant payments.

## 33.2. Shariah Description of the Protocol and Token:

Bitcoin Cash, as a decentralized blockchain protocol, is fundamentally a technological tool designed to facilitate peer-to-peer electronic transactions. In Islamic jurisprudence, tools or platforms of this nature are typically viewed as neutral (مباح).

BCH, being a digital asset with intrinsic value and utility, can be seen as "valid property" (مال متقوم) in Islamic jurisprudence. It serves as a medium of exchange, store of value, and unit of account.

**Prohibited Elements in Shariah:**

* **Interest (Usury) (ربا)**: The Bitcoin Cash protocol and BCH token do not inherently involve or promote interest-based transactions.
* **Gambling (قمار, ميسر)**: Neither the protocol nor the token inherently promotes gambling. However, users should be cautious about how they use BCH to ensure they don't engage in gambling activities.
* **Excessive Uncertainty (غرر)**: While cryptocurrencies are volatile, this volatility is akin to business risk, which is permissible in Islam. The protocol or token does not introduce other forms of excessive uncertainty.
* **Unethical or Immoral Activities**: The decentralized nature of Bitcoin Cash means it can be used for various purposes. Users should ensure their use aligns with Islamic ethical standards.

## 33.3. Shariah Opinion of the Protocol and Token:

In conclusion, from a Shariah perspective, the Bitcoin Cash protocol and BCH token are tools; and hence, they are Shariah compliant. However, the permissibility is also determined by their application. Users should ensure their interactions, such as trading, investment, and holding, align with Islamic principles.

# 34. Name of the Protocol: Filecoin (FIL)

|  |  |
| --- | --- |
| Name of the Protocol | Filecoin |
| Name of the Token: | FIL |
| Official Website: | https://filecoin.io/ |
| Official Documentation Link: | https://docs.filecoin.io/ |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/filecoin/ |
| CoinGecko Link: | https://www.coingecko.com/en/coins/filecoin |
| Initial Assessment Date | 30 August 2023 |
| Report Expiry Date | 29 August 2024 |

## 34.1. Main Function of the Protocol and Token:

### 34.1.1. The Protocol

Filecoin is a decentralized storage network designed to store information. It operates as a peer-to-peer network, allowing anyone to store and retrieve data on the internet. The built-in economic incentives ensure that files are stored and retrieved reliably and continuously based on user specifications.

Filecoin operates on a decentralized network where participants provide storage space and are rewarded for their contributions. The protocol uses cryptographic proofs to ensure data integrity and reliability.

**Products and Services**:

* **Filecoin Virtual Machine**: This allows developers to build applications and smart contracts that utilize the Filecoin storage network.
* **Lotus**: The reference implementation of the Filecoin protocol, developed and maintained by Protocol Labs. It enables users to participate in the Filecoin network, earn the FIL token, provide storage, and retrieve stored files.

### 34.1.2. The Token

FIL is the native cryptocurrency of the Filecoin network. It is used as a medium of exchange within the network, primarily for storage and retrieval services.

**Main Functions**:

* **Compensation for Storage Providers**: Those who provide storage space on the network are rewarded in FIL tokens.
* **Payment for Storage**: Users who want to store their data on the Filecoin network pay in FIL.
* **Staking and Governance**: FIL token holders can participate in network governance, influencing decisions and the direction of the protocol.

## 34.2. Shariah Description of the Protocol and Token:

Filecoin can be viewed as a "medium" or "tool" (وسيلة) for data storage and retrieval. Its permissibility is based on its use and the nature of its transactions.

FIL can be characterized as "mal" (مال) or property/wealth in Islamic law, given its utility and value. It qualifies as a valid subject for transactions.

**Prohibited Elements in Shariah:**

* **Interest (Usury) (ربا)**: There's no indication that Filecoin or FIL inherently involves or promotes interest-based transactions.
* **Gambling (قمار, ميسر)**: The protocol and token do not inherently promote gambling. However, users should ensure their use of FIL doesn't engage in gambling activities.
* **Excessive Uncertainty (غرر)**: The protocol's primary function is data storage, and while the crypto market is volatile, this is viewed as business risk, which is permissible in Islam.
* **Unethical or Immoral Activities**: The decentralized nature means Filecoin can be used for various purposes. Users should ensure their use aligns with Islamic ethical standards.

## 34.3. Shariah Opinion of the Protocol and Token:

In conclusion, from a Shariah perspective, the Filecoin protocol and FIL token are tools; and hence, they are Shariah compliant. However, the permissibility is also determined by their application. Users should ensure their interactions, such as trading, investment, and holding, align with Islamic principles.

**35. Name of the Protocol: Golden Protocol**

|  |  |
| --- | --- |
| Name of the Protocol | Golden |
| Name of the Token: |  |
| Official Website: | https://golden.xyz/ |
| Official Documentation Link: | https://docs.golden.xyz/ |
| CoinMarketCap Link: |  |
| CoinGecko Link: |  |
| Initial Assessment | Dr Farrukh Habib |
| Initial Assessment Date | 27 May 2023 |
| Reviewer | Mufti Billal Omarjee |
| Review Date | 27 May 2023 |

**35.1. Main Function of the Protocol and Token:**

**35.1.1. The Protocol**

The Golden Protocol is a decentralized, permissionless knowledge graph that aims to map 10 billion entities and the public knowledge that surrounds them. Its mission is to create an open, free, and incentivized graph of canonical knowledge, recognized as accurate and authoritative​​. The protocol functions by using triples (also known as fact triples or SPO triples), which are the building blocks of facts that link entities together forming a graph​. The protocol also incentivizes the construction of the knowledge graph by offering rewards in the form of testnet points to users who successfully submit and verify triples. It's important to note that the protocol is still under development and currently operates on a testnet, with a mainnet launch planned for the future​​.

**35.1.2. The Token**

As for the token, it is not explicitly described in the available documents. It seems that the protocol is using a placeholder called "testnet points" that participants can earn for contributing to the development of the graph by submitting and verifying triples. These points may convert into incentives available at the mainnet launch​. However, as of now, there's no mainnet incentive and no set date for release for any incentives​. The documents state that up to 1% of the token treasury will be awarded to the community for correct data submission and verification​.

**35.2. Shariah Description of the Protocol and Token:**

From an Islamic legal perspective, the nature of the platform can be seen as a digital, decentralized, open-source protocol aiming to build a global knowledge graph. It offers a service of knowledge collection and verification, which does not appear to involve any elements prohibited by Shariah law, such as interest (usury), gambling, excessive uncertainty, or unethical activities.

The token, as described, is a form of digital asset or incentive that is awarded to users for their contribution to the protocol. While the specifics of the token are not yet outlined, based on the information available, it seems that it would be considered a form of reward or compensation for work done (in this case, submitting and verifying triples). This is generally permissible in Shariah, as it can be seen as a form of contract (عقد) where work is exchanged for compensation.

**35.3. Shariah Opinion of the Protocol and Token:**

Based on the available information, the Golden Protocol appears to be halal (permissible) as it doesn't involve any activities that are explicitly prohibited in Shariah. The objective of the protocol is to build a knowledge graph, which is a form of permissible service and doesn't involve elements such as gambling, interest, or unethical activities.

As for the token, it appears to be halal as well, as it is given as a reward or compensation for work done, which is generally permissible in Shariah. However, it's important to note that the details of the token are still not fully outlined, and a more comprehensive Shariah review may be needed once more information is available.

**36. Name of the Protocol: Kresko**

|  |  |
| --- | --- |
| Name of the Protocol | Kresko |
| Name of the Token: |  |
| Official Website: | https://www.kresko.fi/ |
| Official Documentation Link: | <https://kresko.gitbook.io/kresko-docs/>  https://github.com/kreskohq/kresko-protocol/blob/main/whitepaper/Kresko%20Synthetic%20Asset%20Protocol%20v1\_2023-01-23.pdf |
| CoinMarketCap Link: |  |
| CoinGecko Link: |  |
| Initial Assessment | Dr Farrukh Habib |
| Initial Assessment Date | 27 May 2023 |
| Reviewer | Mufti Billal Omarjee |
| Review Date | 27 May 2023 |

**36.1. Main Function of the Protocol and Token:**

**36.1.1. The Protocol**

Kresko is a non-custodial, capital-efficient synthetic asset protocol that operates on the Ethereum Virtual Machine (EVM). It enables the creation and management of securely collateralized synthetic assets through smart contracts written in Solidity. Users can deposit various collateral assets, which are combined in value, allowing users to borrow synthetic assets referred to as Kresko Assets in an overcollateralized fashion. Users can also participate in the protocol by performing liquidations on unhealthy debt positions.

These synthetic assets reflect the value of the underlying asset and are connected within the protocol to an oracle feed that transmits fresh market information of the underlying asset. This is instantly reflected in the protocol​. Examples of Kresko Asset types include stocks, commodities, exchange-traded funds (ETFs), and synthetic crypto assets​​.

The Kresko platform's architecture is designed to grow and evolve according to the vision of the Kresko community. It facilitates trade in synthetic stocks, commodities, and crypto, and allows fractional trading. Its design aims to manage all DeFi assets — mint, swap, pool, and farm — in one place, showing portfolio health and risk clearly.

**36.1.2. The Token**

The documents provided do not explicitly describe a specific Kresko token or coin. However, the synthetic assets created using the Kresko protocol, known as Kresko Assets or krAssets, could be considered as tokens in this context. These krAssets are 18-decimal precision ERC-20 tokens that reflect the value of an underlying asset. These tokens offer a permissionless way to invest or speculate on the value of the underlying asset with minimal counterparty risk.

**36.2. Shariah Description of the Protocol and Token:**

In general, Kresko Protocol appears to function as a platform for contractual agreements relating to the conventional deposit, interest-based borrowing, and trading of synthetic assets. As such, it can be seen as a tool or mechanism facilitating those trades and conventional financial transactions, which in itself is inherently contrary to Shariah principles. Moreover, the permissibility of each transaction is also dependent on the specifics of the transaction and the nature of the assets involved which are mixed in this case.

In other words, the synthetic assets themselves are questionable. If these assets represent things that are haram, or if they involve excessive uncertainty or speculation, this could potentially be a concern from a Shariah perspective.

The Kresko tokens seem to represent a claim or right to a portion of the collateralized assets within the protocol which are used for interest-based loans or transactions. If this is accurate, the token could potentially be characterized as a form of conventional debt or financial obligation.

**36.3. Shariah Opinion of the Protocol and Token:**

Based on the above analysis, it can be said that the protocol and tokens are not Shariah compliant (haram). They cannot be used in a valid transaction.

**37. Name of the Protocol: Aleo**

|  |  |
| --- | --- |
| Name of the Protocol | Aleo |
| Name of the Token: |  |
| Official Website: | https://www.aleo.org/ |
| Official Docs Link: | https://developer.aleo.org/getting\_started/ |
| CoinMarketCap Link: |  |
| CoinGecko Link: |  |
| Initial Assessment | Dr Farrukh Habib |
| Initial Assessment Date | 27 May 2023 |
| Reviewer | Mufti Billal Omarjee |
| Review Date | 27 May 2023 |

**37.1. Main Function of the Protocol and Token:**

**37.1.1. The Protocol**

Aleo is a privacy-focused blockchain platform designed to enable fully private applications. Its key objective is to facilitate the development of decentralized, private applications (dApps) that allow users to interact in a secure, private manner. Aleo achieves this privacy using a technology called zero-knowledge proofs, which allow someone to verify the truth of a statement without revealing any information about the statement itself.

Aleo's main products include Aleo Studio, a web IDE for creating private applications, and SnarkOS, the node implementation of the Aleo protocol. SnarkOS is a decentralized operating system that powers the Aleo network. It is designed to be efficient and scalable, with a focus on minimizing storage, computation, and network requirements.

Aleo employs a unique consensus mechanism known as Proof of Succinct Work (PoSW), which combines elements of Proof of Work (PoW) and succinct zero-knowledge proofs. This mechanism ensures that the blockchain is maintained in a decentralized, secure, and efficient manner.

**37.1.2. The Token**

There is no specific information available about the token. It seems that this protocol does not have a token, at least not now.

**37.2. Shariah Description of the Protocol and Token:**

From a Shariah perspective, Aleo appears to be a technology platform that enables the creation of private applications. As such, it does not seem to inherently violate any of the key principles of Shariah. It also does not seem that it is fundamentally used for unethical or immoral activities. However, it is important to note that the use of the platform for specific activities would need to be evaluated on a case-by-case basis for the Shariah compliance of that specific case.

Without specific details about the Aleo token, it's difficult to provide a comprehensive Shariah evaluation. However, if the token serves as a utility or a means of exchange within the Aleo ecosystem and does not involve elements of interest, excessive uncertainty, or gambling, it could potentially be seen as permissible from a Shariah perspective. Again, its specific use cases would need to be evaluated individually.

**37.3. Shariah Opinion of the Protocol and Token:**

Based on the above analysis, it can be said that the protocol and token (if there is any) can be considered Shariah compliant, as long as they are used in a halal manner.

**38. Name of the Protocol: Burnt Finance**

|  |  |
| --- | --- |
| Name of the Protocol | Burnt Finance |
| Name of the Token: | BURNT |
| Official Website: | https://burnt.com/ |
| Official Docs Link: | <https://docs.burnt.com/burnt-finance/>  https://medium.com/burnt/a-new-era-for-burnt-7340f52d841c |
| CoinMarketCap Link: |  |
| CoinGecko Link: |  |
| Initial Assessment | Dr Farrukh Habib |
| Initial Assessment Date | 27 May 2023 |
| Reviewer | Mufti Billal Omarjee |
| Review Date | 27 May 2023 |

**38.1. Main Function of the Protocol and Token:**

**38.1.1. The Protocol**

Burnt Finance is a fully decentralized auction protocol built on Solana, a high-performance blockchain known for its speed and low transaction costs​​. Burnt Finance's primary goal is to enable anyone to mint a diverse range of synthetics and NFTs and provide them with an unparalleled auction platform that supports various major auction types, ranging from English to Dutch. The platform can process up to 50,000 transactions per second within a 400ms block time, significantly reducing the opportunity for bid manipulation. The average transaction fees are approximately $0.00005, which effectively removes the friction caused by gas fees.

**38.1.2. The Token**

The Burnt Token (BURNT) is the native digital, cryptographically secured utility token of the Burnt Finance platform. BURNT is designed to be used as an interoperable utility token exclusively on the platform. It functions as the medium of exchange between participants on the Burnt Finance platform and does not represent any shareholding, participation, right, title, or interest in any entity. The issuance of BURNT aims to provide a convenient and secure mode of payment and settlement between participants interacting within the ecosystem on the Burnt Finance platform​.

The BURNT token has several use cases. It allows holders to propose and vote on governance proposals determining the features and parameters of the Burnt Finance platform. This governance mechanism includes protocol upgrades, profile verification, and synthetic asset creation. BURNT can be used as collateral for minting synthetic Burnt Assets (bAssets) on the platform, which can then be transferred and traded. Users who purchase NFTs on the platform using BURNT enjoy reduced transaction fees. BURNT also functions as economic incentives distributed to encourage users to contribute and maintain the ecosystem on the Burnt Finance platform.

The Burnt Finance platform uses Proof-of-Stake (PoS) security, relying on third-party computing resources to maintain protocol security. BURNT is distributed as the native platform currency to quantify and pay the costs of consumed resources.

**38.2. Shariah Description of the Protocol and Token:**

From an Islamic legal perspective, the Burnt Finance platform can be viewed as a marketplace or a trading platform. It facilitates transactions between users who are looking to auction or buy assets, like a traditional auction house or a marketplace.

The platform itself does not seem to engage in any activities that are explicitly prohibited in Shariah. There are no elements of Riba (usury or interest), Gharar (excessive uncertainty), Maysir (gambling), or any unethical or immoral activities apparent in the basic operation of the platform.

However, the items being traded on the platform could potentially be problematic from a Shariah perspective. For example, if the NFTs or synthetic assets being auctioned and traded involve elements prohibited in Islam such as haram imagery or themes, then participating in these specific transactions could be seen as haram. Therefore, the permissibility of using the platform from a Shariah perspective may largely depend on the nature of the individual assets being traded.

BURNT token can be seen as a form of "Thaman" (price or consideration) used in transactions within the Burnt Finance platform, similar to how money is used in traditional transactions. It can be seen as a valid subject matter of a transaction ("Mal Mutaqawwam") as long as it has perceived value among the users of the platform and can be exchanged for goods or services.

BURNT does not seem to contain elements that are explicitly prohibited in Shariah, such as Riba or Maysir. It is used as a medium of exchange, a means of voting on governance proposals, and a way to incentivize participation in the platform. It does not represent a debt, does not accrue interest, and does not entitle the holder to profits or returns. It is also not used for gambling purposes.

**38.3. Shariah Opinion of the Protocol and Token:**

Based on the above analysis, it can be said that the protocol and tokens can be considered Shariah compliant, as long as they are used in a halal manner.

# 39. Name of the Protocol: zkSync

|  |  |
| --- | --- |
| Name of the Protocol | zkSync |
| Name of the Token: |  |
| Official Website: | https://zksync.io/ |
| Official Documentation Link: | https://era.zksync.io/docs/ |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/zksync/ |
| CoinGecko Link: |  |
| Initial Assessment | Dr Farrukh Habib |
| Initial Assessment Date | 23 May 2023 |
| Reviewer | Mufti Billal Omarjee |
| Review Date | 23 May 2023 |

## 39.1. Main Function of the Protocol and Token:

### 39.1.1. The Protocol

zkSync is a ZK rollup, a trustless protocol that uses cryptographic validity proofs to provide scalable and low-cost transactions on Ethereum. It is a Layer-2 scaling solution that can be used to execute Ethereum smart contracts off-chain and settle transactions on-chain.

zkSync is designed to be secure, scalable, and user-friendly. It uses zkSNARKs, a type of zero-knowledge proof, to verify transactions off-chain without revealing any sensitive information. This allows zkSync to achieve high throughput and low fees while maintaining the security and decentralization of Ethereum.

zkSync is still under development, but it has already achieved significant milestones. In March 2023, zkSync launched its public testnet, which allowed users to test the protocol and provide feedback. In May 2023, zkSync launched its mainnet, which is now live and available to everyone.

### 39.1.1. The Token

It seems that zkSync does not have a token, at least for the time being.

## 39.2. Shariah Description of the Protocol and Token:

The Shariah nature of the zkSync protocol is that it is a decentralized platform that allows users to execute Ethereum smart contracts off-chain and settle transactions on-chain. This means that users have full control over their funds and transactions, and there is no central authority that can interfere with them.

There are no integral elements or major components in the zkSync protocol that are prohibited in Shariah. The protocol is decentralized and does not directly involve any interest, gambling, or excessive uncertainty by default. It is also not explicitly used for any unethical or immoral activities by design.

## 39.3. Shariah Opinion of the Protocol and Token:

Based on the above analysis, the zkSync protocol seems to be halal (permissible) in Shariah. It is a decentralized platform and do not explicitly or directly involve any elements that are prohibited in Shariah.

# 39. Name of the Protocol: Sui (IOU) (SUI)

|  |  |
| --- | --- |
| Name of the Protocol | SUI (IOU) |
| Name of the Token: | SUI |
| Official Website: | https://sui.io/ |
| Official Documentation Link: | https://docs.sui.io/learn |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/sui-iou/ |
| CoinGecko Link: | https://www.coingecko.com/en/coins/sui-iou |
| Initial Assessment | Dr Farrukh Habib |
| Initial Assessment Date | 23 May 2023 |
| Reviewer | Mufti Billal Omarjee |
| Review Date | 23 May 2023 |

## 39.1. Main Function of the Protocol and Token:

### 39.1.1. The Protocol

Sui is a Layer 1 blockchain that is designed to be scalable, secure, and energy efficient. It uses a proof-of-stake consensus mechanism and is built on a new programming language called Move. Sui's main objectives are to:

* Provide a decentralized platform for developers to build applications.
* Enable secure and efficient transactions.
* Reduce the environmental impact of blockchain technology.

Sui offers scalability and unprecedented low-latency for simple use cases. Sui makes most transactions processable in parallel. This better utilizes processing resources and offers the option to increase throughput by adding more resources. Sui forgoes consensus to instead use simpler and lower-latency primitives for simple use cases, such as payment transactions and assets transfer.

### 39.1.1. The Token

Sui has a native token called SUI, with a fixed supply. The SUI token is used to pay for gas, and users can stake their SUI tokens with validators in a Delegated Proof-of-Stake model within an epoch. The voting power of validators within this epoch is a function of the amount of SUI in their staking pool, including both validator and user SUI tokens. In any epoch, the set of validators is Byzantine fault tolerant. At the end of the epoch, fees collected through all transactions processed are distributed to validators according to their contribution to the operation of the network. Validators can in turn share some of the fees as rewards to users that stake their SUI with them.

The SUI token serves four purposes on the Sui platform:

* Users can stake SUI to participate in the proof-of-stake mechanism.
* SUI is the asset denomination needed for paying the gas fees required to execute and store transactions or other operations on the Sui platform.
* SUI can be used as a versatile and liquid asset for various applications including the standard features of money – a unit of account, a medium of exchange, or a store of value – and more complex functionality enabled by smart contracts, interoperability, and composability across the Sui ecosystem.
* SUI token plays an important role in governance by acting as a right to participate in on-chain voting on issues such as protocol upgrades.

## 39.2. Shariah Description of the Protocol and Token:

The Shariah nature of the Sui protocol is that it is a decentralized platform that allows users to send and receive value without the need for a central authority.

The Islamic legal characterization of the Sui token is that it is a digital asset that can be used to pay for transactions, secure the network, and participate in governance. SUI is a limited supply token, which means that it has a fixed value and cannot be inflated.

There are no major elements or vital components in the Sui protocol or token that are prohibited in Shariah. Sui does not directly involve interest, does not involve gambling, and does not have any elements of excessive uncertainty or unethical or immoral activities by design or as a default feature.

## 39.3. Shariah Opinion of the Protocol and Token:

Based on the above analysis, the Shariah opinion of the Sui protocol and token is that they both are halal (permissible). Sui is a decentralized platform that allows users to send and receive value.

# 40. Name of the Protocol: LayerZero

|  |  |
| --- | --- |
| Name of the Protocol | LayerZero |
| Name of the Token: |  |
| Official Website: | https://layerzero.network/ |
| Official Documentation Link: | <https://layerzero.gitbook.io/docs/>  https://layerzero.network/pdf/LayerZero\_Whitepaper\_Release.pdf |
| CoinMarketCap Link: |  |
| CoinGecko Link: |  |
| Initial Assessment | Dr Farrukh Habib |
| Initial Assessment Date | 23 May 2023 |
| Reviewer | Mufti Billal Omarjee |
| Review Date | 23 May 2023 |

## 40.1. Main Function of the Protocol and Token:

### 40.1.1. The Protocol

LayerZero is a blockchain messaging protocol that allows decentralized applications to be built across multiple blockchains. The protocol is designed to be lightweight and efficient, and it can be used to send messages between any two chains that are connected to the LayerZero network.

The LayerZero protocol is based on a two-party model. Each chain that wants to connect to the LayerZero network must run an endpoint. The endpoints are responsible for routing messages between the different chains.

When a message is sent from one chain to another, it is first routed through the endpoint on the sending chain. The endpoint then notifies the Oracle and Relayer of the message and its destination chain. The Oracle forwards the block header to the endpoint on the receiving chain, and the Relayer then submits the transaction proof.

The LayerZero protocol is designed to be secure and reliable. The messages are encrypted and signed, and the Oracle and Relayer are both incentivized to ensure that the messages are delivered correctly.

### 40.1.2. The Token

LayerZero does not have a token yet. The team has stated that they are planning to launch a token in the future, but they have not yet released any details about the tokenomics.

## 40.2. Shariah Description of the Protocol and Token:

The Shariah nature of the LayerZero protocol is that it is a decentralized platform that allows for the transfer of value between different blockchains. The protocol is not a financial product and does not involve any interest or gambling.

The Islamic legal characterization of the LayerZero token is not yet known. The team has not yet released any details about the tokenomics, so it is not possible to say whether the token would be considered a security token or a utility token.

There are no fundamental elements or vital components in the LayerZero protocol that are prohibited in Shariah. The protocol does not directly involve any interest, gambling, or excessive uncertainty. The protocol is also not used for any unethical or immoral activities by design.

## 40.3. Shariah Opinion of the Protocol and Token:

Based on the above analysis, the protocol seems to be halal (permissible) in Shariah. It is a decentralized platform and do not explicitly or directly involve any elements that are prohibited in Shariah.

# 41. Name of the Protocol: StarkWare

|  |  |
| --- | --- |
| Name of the Protocol | StarkWare |
| Name of the Token: |  |
| Official Website: | https://starkware.co/ |
| Official Documentation Link: |  |
| CoinMarketCap Link: |  |
| CoinGecko Link: |  |
| Initial Assessment | Dr Farrukh Habib |
| Initial Assessment Date | 23 May 2023 |
| Reviewer | Mufti Billal Omarjee |
| Review Date | 23 May 2023 |

## 41.1. Main Function of the Protocol and Token:

### 41.1.1. The Protocol

StarkWare is a company that develops scalable and private blockchains. They use a technology called STARKs to generate and verify proofs of computational integrity. STARKs are zero-knowledge, succinct, transparent, and post-quantum secure. This means that they can be used to prove that a computation has been performed without revealing any information about the input or output of that computation.

StarkWare's technology can be used to scale blockchains by offloading computations to off-chain servers. This allows for more transactions to be processed per second without increasing the computational burden on the blockchain itself. StarkWare's technology can also be used to provide privacy for blockchain transactions. This is done by encrypting the data before it is processed on the blockchain. Only the parties involved in the transaction can decrypt the data, which prevents anyone else from seeing it.

StarkWare offers a few key products:

* **StarkEx**: A Standalone Validity-Rollup SaaS where decentralized applications (dApps) can build on the service. StarkEx supports a range of use cases such as NFT minting & trading, derivative trading, automated market making (AMM), spot trading, payments, and DeFi pooling​.
* **StarkNet**: A decentralized Validity-Rollup (also known as a ZK-Rollup) that acts as a Layer 2 network over Ethereum. It's designed to allow any application to achieve massive scale without compromising Ethereum's composability and security. Developers can deploy any business logic on StarkNet, which provides Ethereum-level composability​​.
* **Cairo**: A language for creating STARK-provable programs for general computation. Cairo powers StarkNet and StarkEx, scaling applications on Mainnet. Cairo 1.0 is the upgraded Rust-inspired version of Cairo​​.

### 41.1.2. The Token

The project does not have a native token.

## 41.2. Shariah Description of the Protocol and Token:

The StarkWare project, as a technology for enhancing blockchain scalability and security, does not inherently involve any of the forbidden activities from the Shariah perspective. It's a technology infrastructure that can be used for a wide range of applications.

StarkEx and StarkNet facilitate transactions and contracts on the blockchain, which can be compliant with the principles of Shariah if they are used for halal (permissible) purposes. The use of Cairo for creating provable programs doesn't involve any forbidden activities in itself, but the nature of the programs could vary widely.

The project doesn't have a native token, so there's no token to evaluate for Shariah compliance. However, any token or asset used or created on the StarkWare protocols would need to be evaluated on its own terms.

## 41.3. Shariah Opinion of the Protocol and Token:

In conclusion, StarkWare's protocols (StarkEx and StarkNet) can be seen as tools and infrastructures that, in themselves, do not contravene any principles of Shariah law. Hence, they are halal (permissible). However, their use in particular applications would need to comply with Islamic ethical and legal principles as well.

# 42. Name of the Protocol: Neon EVM (NEON)

|  |  |
| --- | --- |
| Name of the Protocol | Neon EVM |
| Name of the Token: | NEON |
| Official Website: | <https://neonevm.org/>; <https://neon-labs.org/> |
| Official Documentation Link: | <https://neon-labs.org/Neon_EVM.pdf>  <https://docs.neonfoundation.io/docs/quick_start> |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/neon/ |
| CoinGecko Link: | https://www.coingecko.com/en/coins/neon |
| Initial Assessment | Dr Farrukh Habib |
| Initial Assessment Date | 23 May 2023 |
| Reviewer | Mufti Billal Omarjee |
| Review Date | 23 May 2023 |

## 42.1. Main Function of the Protocol and Token:

### 42.1.1. The Protocol

Neon is an Ethereum Virtual Machine (EVM) that functions within the Solana blockchain. The primary goal of Neon is to bring the scalability and low transaction costs of Solana to the Ethereum dApp ecosystem, providing developers and end-users with a platform that is both efficient and cost-effective.

The Neon EVM is designed to be a fully Ethereum-compatible environment on Solana, supporting Ethereum accounts, signatures, tools, infrastructure, and ERC-20 tokens, along with the Ethereum-like Web3 RPC API. This compatibility makes it possible to scale Ethereum dApps on Solana in a developer-friendly manner, allowing them to tap into Solana's vibrant ecosystem.

### 42.1.1. The Token

NEON is a utility token associated with the Neon EVM. The token will be used for governance within the Neon protocol, enabling a decentralized process for proposing and voting for protocol improvements. The Neon EVM economy is based on fees, indicating that NEON might also be used to pay for transactions or services within the Neon ecosystem.

As of this writing, the NEON token has not been officially launched, hence, its specific details, such as the issuance, distribution, and unique features of the NEON token, are not available.

## 42.2. Shariah Description of the Protocol and Token:

The Neon protocol could be seen as a digital service or platform that facilitates financial and contractual transactions using smart contracts. As such, it might be characterized as a form of digital service or Mu'amalat (financial transactions) in Islamic jurisprudence. The key consideration would be whether the transactions and contracts executed on the platform conform to Islamic principles, such as the prohibition of Riba (interest), Gharar (excessive uncertainty), and unethical or immoral activities.

As for the NEON token, it could be viewed as a form of digital property (Mal) or a digital asset. Since the token represents a form of value and can be owned and transferred between parties, it could be classified as Mal Mutaqawwam (valid property).

## 42.3. Shariah Opinion of the Protocol and Token:

Based on the discussion above, Neon protocol and its token can be deemed halal (permissible) in Shariah, as long as they are used in transactions that are in line with Islamic principles (e.g., transactions without Riba, Gharar, or unethical elements).

# 43. Name of the Protocol: Cosmos (ATOM)

|  |  |
| --- | --- |
| Name of the Protocol | Cosmos |
| Name of the Token: | ATOM |
| Official Website: | https://cosmos.network/ |
| Official Documentation Link: | https://docs.cosmos.network/main |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/cosmos/ |
| CoinGecko Link: | https://www.coingecko.com/en/coins/cosmos-hub |
| Initial Assessment | Dr Farrukh Habib |
| Reviewer | Mufti Billal Omarjee |

## 43.1. Main Function of the Protocol and Token:

### 43.1.1. The Protocol

The Cosmos SDK is an open-source framework for building multi-asset public Proof-of-Stake (PoS) blockchains, like the Cosmos Hub, as well as permissioned Proof-of-Authority (PoA) blockchains. Blockchains built with the Cosmos SDK are generally referred to as application-specific blockchains.

The Cosmos protocol is a framework for building blockchains that are interoperable with each other. It is designed to be scalable, secure, and easy to use. The Cosmos protocol is based on the Tendermint consensus algorithm, which is a Byzantine Fault Tolerant (BFT) algorithm. This means that the Cosmos network can continue to operate even if some of the nodes in the network fail.

The Cosmos protocol has several features that make it well-suited for building interoperable blockchains. These features include:

* Interoperability: The Cosmos protocol allows blockchains to communicate with each other through the Inter-Blockchain Communication (IBC) protocol. This means that users can transfer tokens and data between different blockchains.
* Scalability: The Cosmos protocol is designed to be scalable. This means that it can handle many transactions without becoming congested.
* Security: The Cosmos protocol is designed to be secure. This is achieved using the Tendermint consensus algorithm and other security features.

### 43.1.2. The Token

The Cosmos token (ATOM) is the native cryptocurrency of the Cosmos network. It is used to pay for fees on the Cosmos network, to secure the network through staking, and to participate in governance.

ATOM is a Proof-of-Stake (PoS) cryptocurrency. This means that users can earn rewards by staking their ATOM tokens. Staking is the process of locking up ATOM tokens in order to participate in the consensus process.

ATOM holders can also participate in governance by voting on proposals that affect the Cosmos network. These proposals can include changes to the network's protocol, the distribution of rewards, and other matters.

## 43.2. Shariah Description of the Protocol and Token:

The Cosmos protocol is a decentralized platform that allows developers to build blockchains that are interoperable with each other. It is designed to be scalable, secure, and easy to use.

From a Shariah perspective, it does not involve any prohibited activities, such as interest, gambling, or excessive uncertainty. The protocol is also decentralized, which means that it is not subject to the control of any single entity. This makes it a more secure and trustworthy platform for conducting transactions.

The Cosmos token (ATOM) is a utility token that is used to pay for fees on the Cosmos network, to secure the network through staking, and to participate in governance.

From a Shariah perspective, it is not a security or a derivative, and it does not represent any ownership interest in the Cosmos network. ATOM is simply a tool that can be used to participate in the network and earn rewards.

## 43.3. Shariah Opinion of the Protocol and Token:

Based on the above analysis, the Cosmos protocol and token both are halal. They are decentralized platforms that do not involve any prohibited activities. ATOM is a utility token that can be used to participate in the network and earn rewards.

# 44. Name of the Protocol: Monero (XMR)

|  |  |
| --- | --- |
| Name of the Protocol | Monero |
| Name of the Token: | XMR |
| Official Website: | https://www.getmonero.org/ |
| Official Documentation Link: | https://monerodocs.org/ |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/monero/ |
| CoinGecko Link: | https://www.coingecko.com/en/coins/monero |
| Initial Assessment | Dr Farrukh Habib |
| Reviewer | Mufti Billal Omarjee |

## 44.1. Main Function of the Protocol and Token:

### 44.1.1. The Protocol

Monero is a privacy-focused cryptocurrency that was created in 2014. It is based on the CryptoNote protocol, which uses several techniques to protect user privacy, including ring signatures, stealth addresses, and CoinJoin.

The main objective of Monero is to provide a cryptocurrency that is both private and secure. The protocol is designed to be resistant to government surveillance and censorship. Monero is also designed to be scalable, so that it can be used by many people.

### 44.1.2. The Token

The Monero token (XMR) is the native cryptocurrency of the Monero network. It is used to pay for transactions on the network, to secure the network through mining, and to participate in governance.

XMR is a Proof-of-Work (PoW) cryptocurrency. This means that it is mined by solving computationally difficult problems. The network is secured by a network of miners who compete to solve these problems.

XMR holders can also participate in governance by voting on proposals that affect the Monero network. These proposals can include changes to the network's protocol, the distribution of rewards, and other matters.

## 44.2. Shariah Description of the Protocol and Token:

The Monero protocol is a decentralized platform that allows users to send and receive Monero tokens without revealing their identity. It is designed to be secure, private, and scalable.

From a Shariah perspective, it does not directly involve any prohibited activities, such as interest, gambling, or excessive uncertainty. The protocol is also decentralized, which means that it is not subject to the control of any single entity. This makes it a more secure and trustworthy platform for conducting transactions.

The Monero token (XMR) is a utility token that is used to pay for fees on the Monero network, to secure the network through mining, and to participate in governance.

From a Shariah perspective, it is not a security or a derivative, and it does not represent any ownership interest in the Monero network. XMR is simply a tool that can be used to participate in the network and earn rewards.

Some people argue that Monero could be, and has been, used for illegal activities, such as, payment for illegal goods and services, money laundering and terrorist financing. Based on that the use of Monero for such purposes is definitely not Shariah-compliant, and such transactions and activities would be invalid and impermissible from the Shariah perspective. But it does not make Monero token itself a haram subject matter or object because these activities or transactions are not an integral part or component of

## 44.3. Shariah Opinion of the Protocol and Token:

Based on the above analysis, the Monero protocol and token both can be considered halal if they are used in a Shariah-compliant manner. They are decentralized platforms that do not directly involve any prohibited activities. XMR is a payment token that can also be used to participate in the network and earn rewards.

# 45. Name of the Protocol: Toncoin (TON)

|  |  |
| --- | --- |
| Name of the Protocol | Toncoin |
| Name of the Token: | TON |
| Official Website: | https://ton.org/ |
| Official Documentation Link: | <https://ton.org/whitepaper.pdf>  https://docs.ton.org/learn/introduction |
| CoinMarketCap Link: | https://coinmarketcap.com/currencies/toncoin/ |
| CoinGecko Link: | https://www.coingecko.com/en/coins/toncoin |
| Initial Assessment | Dr Farrukh Habib |
| Reviewer | Mufti Billal Omarjee |

## 45.1. Main Function of the Protocol and Token:

### 45.1.1. The Protocol

The TON protocol is a decentralized blockchain platform that was developed by the Telegram messaging app. The protocol is designed to be scalable, secure, and efficient, and it can support a wide range of applications.

The TON protocol is based on a modified version of the Proof-of-Stake consensus mechanism. This mechanism allows for more efficient and secure transactions, and it also makes the network more resistant to attack.

The TON protocol also features several other innovations, such as its use of dynamic sharding and its support for smart contracts. These innovations make the TON protocol a powerful platform for a wide range of applications. These include TON Blockchain, TON DNS, TON Storage, and TON Sites. TON Blockchain is the core protocol that connects TON’s underlying infrastructure together to form the TON Ecosystem.

The TON Project uses its own peer-to-peer network protocols. TON Blockchain uses these protocols to propagate new blocks, send and collect transaction candidates and so on. TON Ecosystem services (e.g., TON Proxy, TON Sites, TON Storage) run on these protocols.

### 45.1.2. The Token

The native cryptocurrency of TON Blockchain is Toncoin. Transaction fees, gas payments (i.e., smart contract message processing fees), and persistent storage payments are collected in Toncoin. Toncoin is used to make the deposits required to become a blockchain validator.

## 45.2. Shariah Description of the Protocol and Token:

The TON protocol is a decentralized blockchain platform, which means that it is not subject to the control of any central authority. The TON protocol is also designed to be secure and efficient. The protocol's use of Proof-of-Stake consensus mechanism.

The TON protocol does not directly contain any elements that are prohibited in Shariah law. The protocol does not directly use interest, gambling, or excessive uncertainty, and it does not directly engage in any unethical or immoral activities.

The TON token is a payment token, which means that it has a specific use case.

## 45.3. Shariah Opinion of the Protocol and Token:

Based on the above analysis, it can be concluded that the TON protocol and token are permissible in Shariah law. The protocol is a decentralized blockchain platform that is designed to be secure, efficient, and compatible with Shariah law. The token is a payment token that has a specific use case and does not contain any elements that are prohibited in Shariah law.