
# MiCAR WHITE PAPER

Version 1.1

September 2025

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## 01 DATE OF NOTIFICATION

2025-09-26

### COMPLIANCE STATEMENTS

## 02 Statement in accordance with Article 6(3) of Regulation (EU) 2023/1114

This crypto-asset white paper has not been approved by any competent authority in any Member State of the European Union. The person seeking admission to trading of the crypto-asset is solely responsible for the content of this crypto-asset white paper.

## 03 Compliance statement in accordance with Article 6(6) of Regulation (EU) 2023/1114

This crypto-asset white paper complies with Title II of Regulation (EU) 2023/1114 of the European Parliament and of the Council and, to the best of the knowledge of the management body, the information presented in the crypto-asset white paper is fair, clear and not misleading and the crypto-asset white paper makes no omission likely to affect its import.

## 04 Statement in accordance with Article 6(5), points (a), (b), (c), of Regulation (EU) 2023/1114

The crypto-asset referred to in this crypto-asset white paper may lose its value in part or in full, may not always be transferable and may not be liquid.

## 05 Statement in accordance with Article 6(5), point (d), of Regulation (EU) 2023/1114

false

## 06 Statement in accordance with Article 6(5), points (e) and (f), of Regulation (EU) 2023/1114

The crypto-asset referred to in this white paper is not covered by the investor compensation schemes under Directive 97/9/EC of the European Parliament and of the Council or the deposit guarantee schemes under Directive 2014/49/EU of the European Parliament and of the Council.

**SUMMARY**

## 07 Warning

This summary should be read as an introduction to the crypto-asset white paper.

The prospective holder should base any decision to purchase this crypto-asset on the content of the crypto-asset white paper as a whole and not on the summary alone.

The offer to the public of this crypto-asset does not constitute an offer or solicitation to purchase financial instruments and any such offer or solicitation can be made only by means of a prospectus or other offer documents pursuant to the applicable national law.

This crypto-asset white paper does not constitute a prospectus as referred to in Regulation (EU) 2017/1129 of the European Parliament and of the Council or any other offer document pursuant to Union or national law.

## 08 Characteristics of the crypto-asset

ZETA (also referred to as "ZETA tokens" or "ZetaChain (ZETA)") is a fungible token issued natively on the ZetaChain blockchain, with an initial supply of 2.1 billion tokens and controlled inflation thereafter.

ZETA is used:

a. as gas for ZetaChain’s omnichain smart contracts layer and internal transactions;

b. in core pools that the protocol uses to exchange for external ZRC-20 gas assets to pay for and write outbound transactions to external chains;

c. as a cross-chain intermediary asset through messaging. When a cross-chain message is sent, a dApp/user attaches ZETA in his message to represent value and to pay for all gas and transaction fees in a single bundle; and

d. for voting in governance proposals (network, policy upgrades, etc.).

ZETA is also exchanged on the core pools to pay for outbound gas and is core to securing the Proof-of-Stake blockchain. Validators stake and users may delegate ZETA to validators, earning block emissions.

Rights are exercised on-chain via the ZetaChain protocol. Governance rights are executed through on-chain voting, while staking and transaction fee payments are executed directly using the ZETA token within self-custodied wallets.

Modifications to rights and obligations attached to ZETA tokens may only be made through the ZetaChain governance framework, whereby token holders can propose and vote on changes to protocol rules and parameters.

## 09 Utility Token Status

Not applicable. ZETA does not qualify as a utility token as defined under Art. 3 (1)(9) MiCAR. While ZETA tokens share similarities with utility tokens insofar as they have utility within the ZetaChain ecosystem, ZETA's functionality is wider than only intending to provide access to a good or service supplied by its issuer. This classification for the purposes of MiCAR is without prejudice to the categorisation of ZETA under legislation or practice in other jurisdictions.

## 10 Key information about the offer to the public or admission to trading

| | |
|---|---|
| *Admission to trading* | *ZETA has been available on certain EU venues and exchanges since January 2024.*<br><br>*Relevant EU trading platforms which have listed ZETA or where admission to trading is sought include: Payward Global Solutions Limited, t/a Kraken, OK Coin Europe Ltd, t/a OKX, Bitstamp Europe S.A., and Bitvavo B.V. Admission to trading for ZETA is sought to enable broad participation in and access to the ZetaChain ecosystem.* |

## A. PART A - INFORMATION ABOUT THE OFFEROR OR THE PERSON SEEKING ADMISSION TO TRADING

**A.1 Name**

Meta Protocol, Inc.

**A.2 Legal Form**

XTIQ

**A.3 Registered Address**

251 Little Falls Drive, Wilmington, New Castle, DE 19808, United States

**A.4 Head Office**

415 Mission St, San Francisco, CA 94105, United States

**A.5 Registration Date**

2021-07-30

**A.6 Legal Entity Identifier**

Not applicable

**A.7 Another Identifier Required Pursuant to Applicable National Law**

6133012

**A.8 Contact Telephone Number**

+1 (731) 333-3350

**A.9 E-mail Address**

mica@zetachain.com

**A.10 Response Time (Days)**

Seven (7) days

**A.11 Parent Company**

N/A

**A.12 Members of the Management Body**

| Full Name | Business Address | Function |
|---|---|---|
| Ankur Nandwani | 251 Little Falls Drive, Wilmington, New Castle, DE 19808, United States | Business & technology Management |
| Charlie McCowan | 251 Little Falls Drive, Wilmington, New Castle, DE 19808, United States | Security & Engineering |

| | | |
|---|---|---|
| Dr. Panruo Wu | 251 Little Falls Drive, Wilmington, New Castle, DE 19808, United States | Technology & Engineering |

**A.13 Business Activity**

The business activity of Meta Protocol, Inc. consists of software development and ecosystem support for ZetaChain.

- **Purpose/strategy/vision** : ZetaChain's mission is to build the first public blockchain that enables universal interoperability across all blockchains and layers, including both Ethereum Virtual Machine (EVM) -compatible and non-EVM chains, as well as Bitcoin and Cosmos. Its vision is to create a fully connected crypto ecosystem where assets, data, and smart contracts can seamlessly operate across networks.
- **Products/services** : The core offering is the ZetaChain Layer 1 blockchain, powered by a Proof-of-Stake consensus and a novel cross-chain messaging protocol. Key features include omnichain smart contracts, native cross-chain asset transfers, and interoperability infrastructure that allows developers to build decentralized applications (dApps) that span multiple blockchains without requiring external bridges or wrapped assets.
- **Markets served** : ZetaChain primarily serves developers building decentralized applications, exchanges, financial protocols, and consumer-facing platforms that require cross-chain functionality. It also targets users seeking a secure, unified experience across fragmented blockchain ecosystems, including retail token holders, DeFi participants, and enterprise adopters.
- **Milestones reached** : ZetaChain has achieved significant milestones, including the successful launch of its testnet with participation from over 100,000 community members and developers, the development and audit of omnichain smart contract functionality, and the establishment of ecosystem partnerships with leading wallets, dApps, and infrastructure providers. In addition, the project has advanced compatibility across major blockchains such as Bitcoin, Ethereum, and Cosmos, laying the foundation for broad adoption of its interoperability solutions.
- **Outlook** : ZetaChain aims to expand adoption of its omnichain infrastructure, driving developer activity and user adoption across integrated blockchains. Future plans include scaling ecosystem partnerships, broadening network participation, and continuing technical innovation to support mass adoption of cross-chain applications.

**A.14 Parent Company Business Activity**

N/A

**A.15 Newly Established**

false

**A.16 Financial Condition for the past three Years**

**Fiscal Year 2022**

In 2022, Meta Protocol, Inc. (referred to as the "Company" in this section) generated modest revenues, primarily from professional services. Operations remained controlled, with limited net impact on earnings. The Company maintained a stable financial position, and liquidity was adequate relative to the scale of activity.

**Fiscal Year 2023**

In 2023, revenue sources diversified to include token-related activities alongside services. Results remained modest, with overall operations broadly neutral in financial effect. The balance sheet continued to show a straightforward capital structure based on equity and cash holdings, with no significant indebtedness.

**Fiscal Year 2024**

In 2024, revenues shifted toward sponsorships, supplemented by limited token activity. Operating scale was lean, profit or loss was minimal, and liquidity was supported through equity contributions and ecosystem partnerships. No long-term debt was incurred.

**Overall Summary**

From 2022 through 2024, the Company maintained a stable but lean financial condition, consistent with its early-stage development. Revenues evolved from services to token activities and then to sponsorships, while operating results remained neutral overall. Cash resources were modest but sufficient, with no unusual events materially affecting income during the period.

**A.17 Financial Condition Since Registration**

See A. 16 above

## B. PART B - INFORMATION ABOUT THE ISSUER, IF DIFFERENT FROM THE OFFEROR OR PERSON SEEKING ADMISSION TO TRADING

**B.1 Issuer different from offeror or person seeking admission to trading**

false

**B.2 Name**

Omitted – not applicable

**B.3 Legal Form**

Omitted – not applicable

**B.4 Registered Address**

Omitted – not applicable

**B.5 Head Office**

Omitted – not applicable

**B.6 Registration Date**

Omitted – not applicable

**B.7 Legal Entity Identifier**

Omitted – not applicable

**B.8 Another Identifier Required Pursuant to Applicable National Law**

Omitted – not applicable

**B.9 Parent Company**

Omitted – not applicable

**B.10 Members of the Management Body**

Omitted – not applicable

**B.11 Business Activity**

Omitted – not applicable

**B.12 Parent Company Business Activity**

Omitted – not applicable

## C. PART C - INFORMATION ABOUT THE OPERATOR OF THE TRADING PLATFORM IN CASES WHERE IT DRAWS UP THE CRYPTO-ASSET WHITE PAPER AND INFORMATION ABOUT OTHER PERSONS DRAWING THE CRYPTO-ASSET WHITE PAPER PURSUANT TO ARTICLE 6(1), SECOND SUBPARAGRAPH, OF REGULATION (EU) 2023/1114

**C.1 Name**

Omitted – not applicable

**C.2 Legal Form**

Omitted – not applicable

**C.3 Registered Address**

Omitted – not applicable

**C.4 Head Office**

Omitted – not applicable

**C.5 Registration Date**

Omitted – not applicable

**C.6 Legal Entity Identifier**

Omitted – not applicable

**C.7 Another Identifier Required Pursuant to Applicable National Law**

Omitted – not applicable

**C.8 Parent Company**

Omitted – not applicable

**C.9 Reason for Crypto-Asset White Paper Preparation**

Omitted – not applicable

**C.10 Members of the Management Body**

Omitted – not applicable

**C.11 Operator Business Activity**

Omitted – not applicable

**C.12 Parent Company Business Activity**

Omitted – not applicable

**C.13 Other persons drawing up the white paper under Article 6 (1) second subparagraph of Regulation (EU) 2023/1114**

Omitted – not applicable

**C.14 Reason for drawing up the white paper under Article 6 (1) second subparagraph of Regulation (EU) 2023/1114**

Omitted – not applicable

## D. PART D - INFORMATION ABOUT THE CRYPTO-ASSET PROJECT

### D.1 Crypto-Asset Project Name

ZetaChain

### D.2 Crypto-Assets Name

ZetaChain (ZETA)

### D.3 Abbreviation

ZETA

### D.4 Crypto-Asset Project Description

ZetaChain is a decentralized Layer-1 blockchain built with the Cosmos SDK that enables seamless omnichain interoperability, allowing smart contracts and applications to natively interact with assets and data across multiple blockchains, including non-smart-contract networks like Bitcoin and Dogecoin. Its architecture combines validators, observers, and threshold-signature signers to securely monitor and transact on external chains, while its universal EVM (zEVM) supports cross-chain smart contracts. ZETA, the native token, is used for gas fees, staking, validator incentives, and governance, with an initial supply of 2.1 billion tokens and controlled inflation thereafter. The protocol's design supports omnichain DeFi, NFTs, gaming, and broader cross-chain applications, while presenting risks related to technical complexity, validator decentralization, token inflation, and cross-chain security.

### D.5 Details of all persons involved in the implementation of the crypto-asset project

| Full Name | Business Address | Function |
|---|---|---|
| Meta Protocol, Inc. | 251 Little Falls Drive, Wilmington, New Castle, DE 19808, United States | Software development and ecosystem support |

### D.6 Utility Token Classification

false

### D.7 Key Features of Goods/Services for Utility Token Projects

*N/A*

### D.8 Plans for the Token

ZetaChain has progressed from testnet through mainnet launch, establishing itself as the first public Layer-1 blockchain enabling omnichain smart contracts across heterogeneous blockchains, including non-smart-contract networks like Bitcoin. Past milestones include the launch of the zEVM, integration with multiple major chains, and the onboarding of ecosystem developers. Future milestones focus on expanding supported blockchains, enhancing cross-chain programmability, scaling validator participation, and driving ecosystem growth through partnerships, developer grants, and user adoption initiatives.

### D.9 Resource Allocation

The project has allocated resources toward protocol development, validator infrastructure, security audits, ecosystem grants, and community programs. A significant portion of the ZETA supply has been reserved for the Protocol Treasury, User Growth Pool, and Ecosystem Growth Fund, ensuring long-term support for network operations, developer engagement, and sustainable growth. Core contributors, purchasers, and advisors have also been allocated tokens with vesting schedules to align incentives with the continued success of the protocol.

**D.10 Planned Use of Collected Funds or Crypto-Assets**

N/A

## E. PART E - INFORMATION ABOUT THE OFFER TO THE PUBLIC OF CRYPTO-ASSETS OR THEIR ADMISSION TO TRADING

### E.1 Public Offering or Admission to Trading

ATTR

### E.2 Reasons for Public Offer or Admission to Trading

The reason for seeking admission to trading of the ZETA token is to enable broad participation in and access to the ZetaChain ecosystem, ensuring that users, developers, and validators can acquire and use ZETA to pay for transaction fees, secure the network through staking, and participate in governance. The admission to trading also supports the growth of omnichain applications by improving liquidity and accessibility of the token across jurisdictions.

### E.3 Fundraising Target

N/A

### E.4 Minimum Subscription Goals

N/A

### E.5 Maximum Subscription Goal

N/A

### E.6 Oversubscription Acceptance

false - N/A

### E.7 Oversubscription Allocation

N/A

### E.8 Issue Price

N/A

### E.9 Official Currency or Any Other Crypto-Assets Determining the Issue Price

N/A

### E.10 Subscription Fee

N/A

### E.11 Offer Price Determination Method

n/a

### E.12 Total Number of Offered/Traded Crypto-Assets

2,100,000,000.00

### E.13 Targeted Holders

ALL

### E.14 Holder Restrictions

There are no restrictions on the type of holders of ZETA; the token may be acquired and held by both retail and professional investors. Trading platforms may have user restrictions in accordance with their user terms.

**E.15 Reimbursement Notice**

N/A

**E.16 Refund Mechanism**

Not applicable. The ZETA token is not sold through an initial coin offering or fundraising event. As such, no payments are collected from purchasers and no refund mechanism is required. Any distributions of ZETA tokens are conducted free of charge.

**E.17 Refund Timeline**

Not applicable

**E.18 Offer Phases**

Not applicable

**E.19 Early Purchase Discount**

Not applicable

**E.20 Time-Limited Offer**

false – N/A

**E.21 Subscription Period Beginning**

Not applicable

**E.22 Subscription Period End**

Not applicable

**E.23 Safeguarding Arrangements for Offered Funds/Crypto-Assets**

N/A

**E.24 Payment Methods for Crypto-Asset Purchase**

Not applicable. ZETA tokens are not sold through an initial coin offering, subscription, or fundraising event. Consequently, there are no payment methods required to acquire ZETA in connection with this white paper. Secondary market purchases, once ZETA is admitted to trading on exchanges, will be subject to the payment methods supported by the respective trading platforms or crypto-asset service providers.

**E.25 Value Transfer Methods for Reimbursement**

Not applicable. ZETA tokens are not offered through a public sale or subscription that involves monetary contributions from purchasers. Accordingly, no refund or reimbursement mechanisms are required. In the event of any future token sale or fundraising activity, any reimbursements would be made in the same form as the original contribution (i.e., fiat currency or crypto-assets), transferred back to the original source account or wallet used for the purchase, within the timelines required by Regulation (EU) 2023/1114.

**E.26 Right of Withdrawal**

Not applicable. The ZETA token is not sold through an initial coin offering, subscription, or other fundraising event. Tokens are distributed free of charge through network participation, ecosystem incentives, and community programs. Accordingly, no payments are collected from purchasers in connection with this white paper, and the statutory right of withdrawal does not apply. For clarity, retail holders acquiring ZETA on secondary markets (after admission to trading) will be subject to the

terms and conditions, including any withdrawal or cancellation rights, of the respective crypto-asset service providers or trading platforms through which such purchases are made.

**E.27 Transfer of Purchased Crypto-Assets**

Not applicable. ZETA tokens are not sold through a public offer, initial coin offering, or subscription. Instead, ZETA is distributed directly to eligible participants via on-chain claiming mechanisms, ecosystem incentive programs, and allocations managed through the protocol treasury. Distributions are executed on the ZetaChain blockchain and transferred directly to the self-custodied wallet addresses provided by recipients. For secondary market purchases, transfers of ZETA are effected in accordance with the settlement and delivery mechanisms of the respective trading platforms or crypto-asset service providers through which the purchase is made.

**E.28 Transfer Time Schedule**

Not applicable

**E.29 Purchaser's Technical Requirements**

Purchasers must have a self-custodied blockchain wallet compatible with the ZetaChain network and supporting the ZETA token (e.g., MetaMask or other EVM-compatible wallets integrated with ZetaChain), secure access to their private keys or seed phrases, and reliable internet access to interact with the network. A sufficient balance of ZETA is also required to pay transaction fees for transfers, staking, and other operations. Holders are solely responsible for safeguarding their wallet credentials, and ZetaChain does not provide custodial services; ZETA tokens sent to an incompatible or incorrect wallet address cannot be retrieved.

**E.30 Crypto-asset service provider (CASP) name**

Not applicable

**E.31 CASP identifier**

Not applicable

**E.32 Placement Form**

NTAV

**E.33 Trading Platforms name**

Payward Global Solutions Limited, t/a Kraken, OK Coin Europe Ltd, t/a OKX, Bitstamp Europe S.A., Bitvavo B.V. and potentially other MiCAR-compliant trading platforms or venues.

**E.34 Trading Platforms Market Identifier Code (MIC)**

PGSL, BESA, VAVO

Where a MIC has been assigned by a regulated trading venue within the European Union, such codes will be published on the official ZetaChain website and updated as necessary. For decentralized exchanges and non-EU platforms that do not operate under a MIC framework, trading access is provided in accordance with the rules and identifiers of those respective platforms.

**E.35 Trading Platforms Access**

Access to ZETA on secondary markets will depend on the respective trading platforms or CASPs that list the token. Users will need to comply with the registration, KYC, and access procedures of those platforms.

**E.36 Involved Costs**

Not applicable. There are no costs associated with obtaining ZETA through ecosystem allocations or community distributions. For secondary market acquisitions, costs will depend on trading platforms' applicable fees and conditions.

**E.37 Offer Expenses**

Not applicable. As no fundraising or subscription is conducted for ZETA tokens under this white paper, there are no related offer expenses. Any expenses incurred relate solely to protocol development, legal, and compliance activities funded through ecosystem resources.

**E.38 Conflicts of Interest**

No conflicts of interest have been identified in connection with the distribution of ZETA tokens. Allocations to core contributors, advisors, and purchasers are subject to vesting schedules to ensure long-term alignment with the interests of the ZetaChain ecosystem and its community.

**E.39 Applicable Law**

N/A

**E.40 Competent Court**

N/A

## F. PART F - INFORMATION ABOUT THE CRYPTO-ASSETS

### F.1 Crypto-Asset Type

Other crypto-asset.

ZETA is a native token of the ZetaChain Layer-1 blockchain, used to pay transaction fees, secure the network through staking, provide validator incentives, and participate in protocol governance.

### F.2 Crypto-Asset Functionality

The ZETA token is required for all on-chain activity within the ZetaChain ecosystem. It serves as gas for transactions, collateral for staking, and the basis of governance, enabling holders to vote on proposals related to protocol upgrades, parameter changes, and treasury allocations.

### F.3 Planned Application of Functionalities

ZETA's core functionalities are already live on the ZetaChain mainnet. Planned expansions include support for additional cross-chain integrations, enhanced staking options, and broader governance use cases as the network evolves.

### F.4 Type of white paper

OTHR

### F.5 The type of submission

NEWT

### F.6 Crypto-Asset Characteristics

ZETA is a fungible token issued natively on the ZetaChain blockchain, with an initial supply of 2.1 billion tokens and controlled inflation thereafter. The token underpins omnichain smart contracts, native cross-chain transfers, and interoperability functions across both EVM and non-EVM blockchains, including Bitcoin and Cosmos.

### F.7 Commercial name or trading name

N/A. See F.13.

### F.8 Website of the issuer

zetachain.com

### F.9 Starting date of offer to the public or admission to trading

2024-01-31

### F.10 Publication date

2025-10-24

### F.11 Any other services provided by the issuer

Beyond issuing ZETA, the ZetaChain protocol provides interoperability infrastructure, enabling omnichain smart contracts, native cross-chain transfers, and developer tools for decentralized applications spanning multiple blockchains.

### F.12 Language or languages of the white paper

English

**F.13 Digital Token Identifier Code used to uniquely identify the crypto-asset or each of the several crypto assets to which the white paper relates, where available**

W3PNWZCTB

**F.14 Functionally Fungible Group Digital Token Identifier, where available**

9BJJBHB21

**F.15 Voluntary data flag**

false

**F.16 Personal data flag**

true

**F.17 LEI eligibility**

true

**F.18 Home Member State**

Ireland (IE).

**F.19 Host Member States**

Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden.

## G. PART G - INFORMATION ON THE RIGHTS AND OBLIGATIONS ATTACHED TO THE CRYPTO-ASSETS

### G.1 Purchaser Rights and Obligations

Holders of ZETA tokens have the right to use them for payment of transaction fees on the ZetaChain network, to stake in order to secure the network and earn rewards, and to participate in governance processes. Obligations include maintaining a compatible wallet and sufficient ZETA balance for fees when interacting with the protocol.

### G.2 Exercise of Rights and Obligation

Rights are exercised on-chain via the ZetaChain protocol. Governance rights are executed through on-chain voting, while staking and transaction fee payments are executed directly using the ZETA token within self-custodied wallets.

### G.3 Conditions for Modifications of Rights and Obligations

Modifications to rights and obligations attached to ZETA tokens may only be made through the ZetaChain governance framework, whereby token holders can propose and vote on changes to protocol rules and parameters.

### G.4 Future Public Offers

There are no planned public offers of ZETA under this white paper. Any future offers or distributions will be disclosed through official ZetaChain communication channels.

### G.5 Issuer Retained Crypto-Assets

The issuer has allocated 504m ZETA tokens (2.1b * 24%) for the treasury. Prospective purchasers must be aware that this figure could change significantly at any time.

### G.6 Utility Token Classification

false

### G.7 Key Features of Goods/Services of Utility Tokens

Not applicable

### G.8 Utility Tokens Redemption

Not applicable

### G.9 Non-Trading Request

true

### G.10 Crypto-Assets Purchase or Sale Modalities

Not applicable

### G.11 Crypto-Assets Transfer Restrictions

There are no restrictions on transferability of ZETA tokens, except for lock-up and vesting arrangements applying to core contributors, advisors, and purchasers under specific allocations.

### G.12 Supply Adjustment Protocols

false

### G.13 Supply Adjustment Mechanisms

Not applicable

**G.14 Token Value Protection Schemes**

false

**G.15 Token Value Protection Schemes Description**

Not applicable

**G.16 Compensation Schemes**

false

**G.17 Compensation Schemes Description**

Not applicable

**G.18 Applicable Law**

The rights and obligations attached to ZETA tokens are governed by the laws of California, without prejudice to EU MiCAR requirements and unless otherwise required by mandatory provisions of applicable consumer protection or private international law.

**G.19 Competent Court**

Subject to mandatory applicable law, disputes relating to ZETA tokens shall be subject to the jurisdiction of the courts of California.

## H. PART H – INFORMATION ON THE UNDERLYING TECHNOLOGY

### H.1 Distributed ledger technology

N/A. See F.13.

### H.2 Protocols and Technical Standards

ZetaChain employs the Cosmos SDK and Tendermint consensus framework, integrates threshold signature schemes (TSS) for secure cross-chain operations, and supports EVM standards through its universal zEVM environment.

### H.3 Technology Used

Users hold ZETA in EVM-compatible wallets integrated with ZetaChain. Transfers, staking, and governance are performed via on-chain transactions validated by the ZetaChain validator network.

### H.4 Consensus Mechanism

ZetaChain uses Proof-of-Stake consensus with validators who stake ZETA tokens to propose and confirm blocks. The network integrates observers and TSS signers to extend security across connected chains: observers monitor activity on external blockchains, while TSS signers coordinate multi-party signing to execute secure cross-chain transfers. Observers and TSS signers monitor external chains to facilitate secure omnichain interoperability.

### H.5 Incentive Mechanisms and Applicable Fees

Validators are incentivized through staking rewards funded by transaction fees and controlled inflation. Users pay gas fees in ZETA for all network operations, including transfers, staking, and cross-chain transactions.

### H.6 Use of Distributed Ledger Technology

*true*

### H.7 DLT Functionality Description

The ZetaChain network operates in a decentralized manner with validators and participants collectively maintaining the ledger, securing consensus, and enabling cross-chain smart contract execution.

### H.8 Audit

*true*

### H.9 Audit Outcome

ZetaChain has undergone multiple independent security audits by third-party firms specializing in blockchain code and protocol security. The most recent, publicly available audit was conducted by Hashlock Pty Ltd in January 2025, which reviewed ZetaChain's standard smart contracts (including UniversalNFT, UniversalToken, etc.) and found the code to be generally secure after remediation of identified issues. Additional recent audits include those by Trail of Bits, Zellic, Halborn, and a public audit contest by Sherlock.

The full audit report is publicly accessible here: https://hashlock.com/wp-content/uploads/2025/03/Zetachain-Smart-Contract-Audit-Report-Final-Report.pdf

## PART I – INFORMATION ON RISKS

Subject only to the limitations and requirements of MiCAR, in particular Article 15 of MiCAR, and applicable mandatory statutes, each user of the crypto-asset as covered by this white paper acts in their own sole responsibility and on their own sole risk. All liability in regards to the risks mentioned herein is excluded, as far as legally permissible.

### I.1 Offer-Related Risks

**General risk factors associated with crypto-asset offerings**

The admission to trading of crypto-assets, including ZETA, is subject to general risks inherent to the broader cryptocurrency market.

**Market volatility**

The value of ZETA tokens may experience substantial fluctuations driven by investor sentiment, macroeconomic developments, and market conditions.

**Regulatory risks**

Changes in legislation, applicable laws, compliance requirements or the implementation of new regulatory frameworks could affect the availability, trading, or use of such assets.

**Security risks**

The risk of exploitation, hacking or security vulnerabilities of the underlying protocol and/or contracts of the token leading to a loss.

**Reputational risks**

The potential for damage to the credibility of, or loss of public trust in, the issuer, the Zeta network, or the project team, could negatively impact stakeholder confidence, market sentiment and overall project viability.

**Concentration risk**

A significant portion of ZETA tokens is held by the team and the issuer's treasury. These holdings are subject to vesting, but when unlocked they could be sold, which may impact the token's market price and decentralization.

### I.2 Issuer-Related Risks

**Regulatory Compliance Risks**: Issuers of crypto assets must adhere to a wide array of regulatory requirements across different jurisdictions. Non-compliance can result in fines, sanctions, or the prohibition of the crypto asset offering, impacting its viability and market acceptance.

**Operational Risks**: These include risks related to the issuer's internal processes, personnel, and technologies, which can affect their ability to manage crypto-asset operations effectively. Failures in operational integrity might lead to disruptions, financial losses, or reputational damage.

**Financial Risks**: Issuers face financial risks, including liquidity, credit, and market risks. These could affect the issuer's ability to continue operations, meet obligations, or sustain the stability or value of the crypto-asset.

**Legal Risks**: Legal uncertainties, potential lawsuits, or adverse legal rulings can pose significant risks to issuers. Legal challenges may affect the legality, usability, or value of a crypto-asset.

**Fraud and Mismanagement Risks**: There is a risk of fraudulent activity or mismanagement by the issuer, which can lead to directly impacting the usability or value of a crypto-asset or damage the credibility of the project.

**Reputational Risks**: Negative publicity, whether due to operational failures, security breaches, or association with illicit activities, can damage an issuer's reputation and, by extension, the value and acceptance of the crypto-asset.

**Technology Management Risks**: Inadequate management of technological updates or failure to keep pace with technological advancements can render a crypto-asset, or the project it is connected to, obsolete or vulnerable to security risks.

**Dependency on Key Individuals**: The success of some crypto projects can be highly dependent on the expertise and leadership of key individuals. Loss or changes in the project's leadership can lead to disruptions, loss of trust, or project failure.

**Conflicts of Interest**: Risks arise when the issuer's interests do not align with those of the crypto-asset holders, potentially leading to decisions that are not in the best interests of the asset holders, impacting the value of a crypto-asset or damage the credibility of the project.

**Counterparty Risks**: Risks associated with the issuer's partners, suppliers, or collaborators, including the potential for non-fulfillment of obligations that can affect the issuer's operations.

### I.3 Crypto-Assets-Related Risks

**Market Risk**: Crypto-assets are notoriously volatile, with prices subject to significant fluctuations due to market sentiment, regulatory news, technological advancements, and macroeconomic factors.

**Liquidity Risk**: Some crypto-assets may suffer from low liquidity, making it difficult to buy or sell large amounts without affecting the market price, which could lead to significant losses, especially in fast-moving market conditions.

**Custodial Risk**: Risks associated with the theft of crypto-assets from exchanges or wallets, loss of private keys, or failure of custodial services, which can result in the irreversible loss of crypto-assets.

**Smart Contract Risk**: Crypto-assets might be connected to or be issued with the help of smart contracts. Smart contracts are code running on a blockchain, executing the programmed functions automatically if the defined conditions are fulfilled. Bugs or vulnerabilities in smart contract code can expose blockchain users to potential hacks and exploits. Any flaw in the code can lead to unintended consequences, such as the loss of crypto-assets or unauthorized access to sensitive data.

**Regulatory and Tax Risk**: Changes in the regulatory environment for crypto-assets (such as consumer protection, taxation, and anti-money laundering requirements) could affect the use, value, or legality of crypto-assets in a given jurisdiction.

**Counterparty Risk**: In cases where crypto-assets are used in contractual agreements or held on exchanges, there is a risk that the counterparty may fail to fulfill their obligations due to insolvency, compliance issues, or fraud, resulting in loss of crypto-assets.

**Reputational Risk**: Association with illicit activities, high-profile thefts, or technological failures can damage the reputation of certain crypto-assets, impacting user trust and market value.

### I.4 Project Implementation-Related Risks

The implementation of the ZetaChain project may encounter risks such as delays in development, unforeseen technical hurdles, or challenges in coordinating stakeholders and partners. In addition, limitations in resource allocation, dependencies on third-party providers, or shifts in regulatory and

market conditions could adversely affect the timely and successful execution of the project. These risks may impact delivery timelines, increase costs, or otherwise influence the achievement of the project's stated objectives.

### I.5 Technology-Related Risks

**Private Key Management Risk and Loss of Access to Crypto-Assets**: The security of crypto-assets heavily relies on the management of private keys, which are used to access and control the crypto-assets (e.g. initiate transactions). Poor management practices, loss, or theft of private keys, or respective credentials, can lead to irreversible loss of access to crypto-assets.

**Settlement and Transaction Finality**: By design, a blockchain's settlement is probabilistic, meaning there is no absolute guaranteed finality for a transaction. There remains a theoretical risk that a transaction could be reversed or concurring versions of the ledger could persist due to exceptional circumstances such as forks or consensus errors. The risk diminishes as more blocks are added, making it increasingly secure over time. Under normal circumstance, however, once a transaction is confirmed, it cannot be reversed or cancelled. Crypto-assets sent to a wrong address cannot be retrieved, resulting in the loss of the sent crypto assets.

**Scaling Limitations and Transaction Fees**: As the number of users and transactions grows, a blockchain network may face scaling challenges. This could lead to increased transaction fees and slower transaction processing times, affecting usability and costs.

**Economic Self-sufficiency and Operational Parameters**: A blockchain network might not reach the critical mass in transaction volume necessary to sustain self-sufficiency and remain economically viable to incentivize block production. In failing to achieve such inflection point, a network might lose its relevance, become insecure, or result in changes to the protocol's operational parameters, such as the monetary policy, fee structure and consensus rewards, governance model, or technical specifications such as block size or intervals.

**Network Attacks and Cyber Security Risks**: Blockchain networks can be vulnerable to a variety of cyber-attacks, including 51% attacks, where an attacker gains control of the majority of the network's consensus, Sybil attacks, or DDoS attacks. These can disrupt the network's operations and compromise data integrity, affecting its security and reliability.

**Consensus Failures or Forks**: Faults in the consensus mechanism can lead to forks, where multiple versions of the ledger coexist, or network halts, potentially destabilizing the network and reducing trust among participants.

**Bugs in the Blockchain's Core Code**: Even with thorough testing, there is always a risk that unknown bugs may exist in a blockchain protocol, which could be exploited to disrupt network operations or manipulate account balances. Continuous code review, audit trails, and having a bug bounty program are essential to identify and rectify such vulnerabilities promptly.

**Smart Contract Security Risk**: Smart contracts are code running on a blockchain, executing the programmed functions automatically if the defined conditions are fulfilled. Bugs or vulnerabilities in smart contract code can expose blockchain networks to potential hacks and exploits. Any flaw in the code can lead to unintended consequences, such as the loss of crypto-assets or unauthorized access to sensitive data.

**Dependency on Underlying Technology**: Blockchain technology relies on underlying infrastructures, such as specific hardware or network connectivity, which may themselves be vulnerable to attacks, outages, or other interferences.

**Risk of Technological Disruption**: Technological advancements or the emergence of new technology could impact blockchain systems, or components used in it, by making them insecure or obsolete (e.g. quantum computing breaking encryption paradigms). This could lead to theft or loss of crypto-assets or compromise data integrity on the network.

**Governance Risk**: Governance in blockchain technology encompasses the mechanisms for making decisions about network changes and protocol upgrades. Faulty governance models can lead to ineffective decision-making, slow responses to issues, and potential network forks, undermining stability and integrity. Moreover, there is a risk of disproportionate influence by a group of stakeholders, leading to centralized power and decisions that may not align with the broader public's interests.

**Anonymity and Privacy Risk**: The inherent transparency and immutability of blockchain technology can pose risks to user anonymity and privacy. Since all transactions are recorded on a public ledger, there is potential for sensitive data to be exposed. The possibility for the public to link certain transactions to a specific address might expose it to phishing attacks, fraud, or other malicious activities.

**Data Corruption**: Corruption of blockchain data, whether through software bugs, human error, or malicious tampering, can undermine the reliability and accuracy of the system.

**Third-Party Risks**: Crypto-assets often rely on third-party services such as exchanges and wallet providers for trading and storage. These platforms can be susceptible to security breaches, operational failures, and regulatory non-compliance, which can lead to the loss or theft of crypto-assets.

### I.6 Mitigation Measures

Zeta has implemented several technical, security, and governance measures to address network stability, decentralization, security risks, and regulatory uncertainties. These efforts aim to enhance resilience, improve validator distribution, and ensure long-term adaptability.

- **Network upgrades and stability improvements**. Regular protocol enhancements ensure that the chain can adapt to evolving demand and performance needs. This reduces the likelihood of outages or congestion and strengthens the network's overall resilience.
- **Validator Decentralization Initiatives**. Managing the validator set to ensure decentralization helps prevent concentration of power. This reduces risks of collusion or capture while improving trust and security in the network.
- **Security Audits and Bug Bounties**. Independent audits and incentivized bug discovery help identify vulnerabilities before they can be exploited. This proactive approach ensures issues are addressed early, lowering the risk of major security incidents.
- **Regulatory Engagement and Compliance Strategies**. Actively working with regulators and designing compliance frameworks reduces exposure to legal uncertainty. This helps safeguard the network's operations and provides clearer pathways for sustainable growth.

## J. INFORMATION ON THE SUSTAINABILITY INDICATORS IN RELATION TO ADVERSE IMPACT ON THE CLIMATE AND OTHER ENVIRONMENT-RELATED ADVERSE IMPACTS

### J.1 Mandatory information on principal adverse impacts on the climate and other environment-related adverse impacts of the consensus mechanism

| General information | |
|---|---|
| **S.1 Name**<br>Name reported in field A.1 | Meta Protocol, Inc. |
| **S.2 Relevant legal entity identifier**<br>Identifier referred to in field A.7 | 6133012 |
| **S.3 Name of the crypto-asset**<br>Name of the crypto-asset, as reported in field D.2 | ZetaChain (ZETA) |
| **S.4 Consensus Mechanism**<br>The consensus mechanism, as reported in field H.4 | ZetaChain uses Proof-of-Stake consensus with validators who stake ZETA tokens to propose and confirm blocks. The network integrates observers and TSS signers to extend security across connected chains: observers monitor activity on external blockchains, while TSS signers coordinate multi-party signing to execute secure cross-chain transfers. |
| **S.5 Incentive Mechanisms and Applicable Fees**<br>Incentive mechanisms to secure transactions and any fees applicable, as reported in field H.5 | Validators are incentivized through staking rewards funded by transaction fees and controlled inflation. Users pay gas fees in ZETA for all network operations, including transfers, staking, and cross-chain transactions. |
| **S.6 Beginning of the period to which the disclosure relates** | 2025-09-12 |
| **S.7 End of the period to which the disclosure relates** | 2025-09-25 |
| **Mandatory key indicator on energy consumption** | |
| **S.8 Energy consumption**<br>Total amount of energy used for the validation of transactions and the maintenance of the integrity of the distributed ledger of transactions, expressed per calendar year | 97504.73634 |
| **Sources and methodologies** | |

| | |
|---|---|
| **S.9 Energy consumption sources and Methodologies**<br>Sources and methodologies used in relation to the information reported in field S.8 | Data provided by CCRI; all indicators are based on a set of assumptions and thus represent estimates; methodology description and overview of input data, external datasets and underlying assumptions available at: https://carbon-ratings.com/dl/whitepaper-mica-methods-2024 and https://docs.mica.api.carbon-ratings.com. We do not account for any offsetting of energy consumption or other market-based mechanism as of today. |

## J.2 Supplementary information on principal adverse impacts on the climate and other environment-related adverse impacts of the consensus mechanism

| **Supplementary key indicators on energy and GHG emissions** | |
|---|---|
| **S.10 Renewable energy consumption**<br>Share of energy used generated from renewable sources, expressed as a percentage of the total amount of energy used per calendar year, for the validation of transactions and the maintenance of the integrity of the distributed ledger of transactions. | 29.07 |
| **S.11 Energy intensity**<br>Average amount of energy used per validated transaction | 0.00006 |
| **S.12 Scope 1 DLT GHG emissions – Controlled**<br>Scope 1 GHG emissions per calendar year for the validation of transactions and the maintenance of the integrity of the distributed ledger of transactions | 0 |
| **S.13 Scope 2 DLT GHG emissions – Purchased**<br>Scope 2 GHG emissions, expressed in tCO2e per calendar year for the validation of transactions and the maintenance of the integrity of the distributed ledger of transactions | 44.75467 |
| **S.14 GHG intensity**<br>Average GHG emissions (scope 1 and scope 2) per validated transaction | 0.00003 |

| Sources and methodologies | |
|---|---|
| **S.15 Key energy sources and methodologies**<br>Sources and methodologies used in relation to the information reported in fields S.10 and S.11 | Data provided by CCRI; all indicators are based on a set of assumptions and thus represent estimates; methodology description and overview of input data, external datasets and underlying assumptions available at: https://carbon-ratings.com/dl/whitepaper-mica-methods-2024 and https://docs.mica.api.carbon-ratings.com. We do not account for any offsetting of energy consumption or other market-based mechanism as of today. |
| **S.16 Key GHG sources and methodologies**<br>Sources and methodologies used in relation to the information reported in fields S.12, S.13 and S.14 | Data provided by CCRI; all indicators are based on a set of assumptions and thus represent estimates; methodology description and overview of input data, external datasets and underlying assumptions available at: https://carbon-ratings.com/dl/whitepaper-mica-methods-2024 and https://docs.mica.api.carbon-ratings.com. We do not account for any offsetting of energy consumption or other market-based mechanism as of today. |