



Echo QS Interchain

Your Gateway to Every Blockchain

TEAM ECHO / INTERCHAIN GROUP





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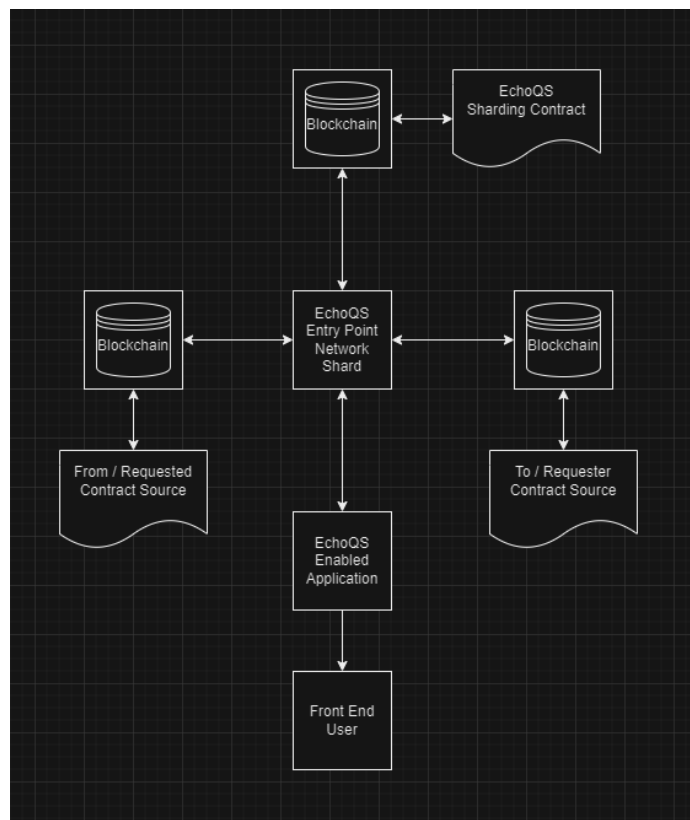
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Preface

In the age of the modern software, blockchain technology has transformed various industries, offering decentralized solutions for transactions, data storage, and smart contracts. However, interoperability remains a challenge, hindering the seamless exchange of assets and data across different blockchains, and there has been one standing hindrance to both developers and chains alike: A lack of uniformity. We are in a venerable sea of chain options, each with unique intricacies, features and utilities. How exactly does one choose which chain will be the right fit for their project? Are layer 2 chains supposed to fight over the table scraps of the most notable of development avenues? How does one, say, compete against the likes of Ethereum, Binance SmartChain, Cosmos Atom, Polygon, or Cronos? Is it even possible?

Today, Team Echo and Interchain Group bring you the solution. Our project: EchoQS, emerges as a groundbreaking solution, introducing the world's first layer zero blockchain to revolutionize blockchain connectivity. EchoQS Interchain is a ZK-Rollup Based Optimistic Canary Chain running on Layer Zero. Unlike traditional blockchains, where one either provides the starting environment, such as Cosmos IBC or Ethereum EVM, or is an extension of a layer one offering, like Polygon, Binance SmartChain or Cronos, EchoQS Works above all layers as a connectivity path for direct contract to contract communication. We are not a traditional blockchain bridge, in a sense, as we are not focused on the direct transfer of assets primarily. Instead, we allow direct software communication at its lowest levels between any two chains, even if their corresponding technology is different. With Echo QS, we aim to open a whole new level of connectivity, development and asset growth that will completely reshape the digital assets and cryptocurrencies industries forever. To put it bluntly, EchoQS aims to have the same impact that Ethereum did when it introduced smart contract functionality.

In order to understand the connectivity of the Chains and how EchoQS Works, let's take a look at this diagram:





In short, an application that is designed around EchoQS will be able to make or take requests to any chain's source, pull return data, and send it to another contract, either as a data storage call or as a function parameter. From there, resulting success status is returned and data is sent to a “Sharding Contract” on a specified chain. The chains do not need to be the same, nor does a sharding contract need to be on the requester or the requested chain. All transaction processing is done off chain on the Network Shard itself, which means no additional overhead is needed for the contract or blockchains. Further, the base transactional data is stored on the Network Shard itself, not on chain. The sharding contract only holds property data, like transaction id, amounts paid, pending transactions, and other low cost data. Shards will be able to be processed via a Etherscan-Like website to view full transactional data. More information will be provided later in the whitepaper.

While this approach does seem simple, EchoQS is backed by a robust and powerful suite of utilities, software and a powerful token. This list includes:

1. EchoQS EVM Token on Polygon POL (Chain ID: 137)
2. EchoQS Token on Echo (Address TBD)
3. EchoQS Terminal, a Terminal Based Blockchain and Wallet Connector
4. Echo Shard Connector, a Canary Contract Written in Solidity
5. EchoQS Nexus, A Desktop Wallet Application
6. Morpheme Hypercube, Our First In Class Blockchain Addressing SDK built off of 4th Dimensional Hypercube (Tessarect) Volumetric Calculations

Each one of these is novel in its own right and will be discussed in their own sections further on in the whitepaper.

In short, EchoQS is built off of a 5 principle system which is based on the following:

1. EchoQS stands as one of the world's first layer zero blockchains, positioning itself at the core of blockchain connectivity. Unlike traditional layer one blockchains that operate at the protocol level, EchoQS operates at layer zero, serving as an intermediary for seamless blockchain interactions.
2. EchoQS introduces the concept of the Optimistic Canary Chain, enabling direct connections between blockchains at the contract level. This innovative approach eliminates the need for complex bridges or intermediaries, streamlining the integration process for developers and users alike.
3. EchoQS aims to empower software developers by simplifying the utilization of lesser-known blockchains with advanced features. By providing comprehensive access to a wide range of blockchain functionalities, EchoQS ensures that developers can leverage the full potential of various blockchain networks effortlessly.
4. EchoQS envisions a future where all blockchain networks are seamlessly interconnected. From Bitcoin to Polkadot and Cosmos to Ethereum, EchoQS facilitates interoperability across diverse blockchain ecosystems, fostering a truly interconnected and decentralized digital landscape.
5. EchoQS offers a comprehensive suite of services, serving as a one-stop-shop for all blockchain needs. From contract development to asset trading and automation, EchoQS provides a robust platform for developers and users to engage with blockchain technology seamlessly.

Part I. EchoQS EVM Token on Polygon Matic

EchoQS was built off the visions of two very influential Proposals on Terra Classic. Primary being the USTX Gas Proposal, Which was voted Yes by 25% of all available voters on Terra Classic and the EVM Crosschain Implementation Prop, voted Yes by 45.1% of all available voters. While these did not pass, we recognized the potential in such a project and decided to push forward with plans and continue with the project. This project is in large part due to the very rich support for such a project to exist and we of course are grateful for the support that we received on those proposals. There have been some changes to how EchoQS is intended to be implemented since those proposals coming out. Primarily, we have migrated to Polygon Matic, over Cronos. This is due to a forking issue in Cronos, where it currently does not support Ethereum Shanghai. In order to be completely secure and ensure that all transactions are protected and backed by the latest technology, we had to abandon the Cronos Token Implementation at this time. Consequently, we have chosen Polygon Matic as it is the top shelf EVM scaling layer that does support Shanghai, as well as Rollups, ZKEVM, and many other features.

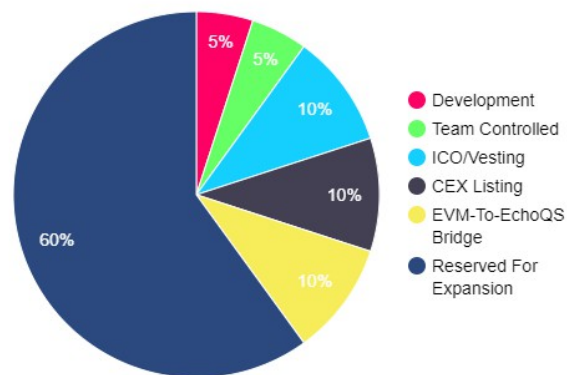
Our Tokenomics listing is as follows:

TOKENIZATION INFO (EVM)	
Token Name	Echo QS
Token Ticker	ECHO
Decimals	18
Launch Chain	Polygon(Chain ID: 137)
Token Quantity	100,000,000,000.000000000000000000 ECHO
Owner Address	0x95828C910191739ed5C2AE1405aac264752fbdF0
Contract Address	0xD97751892c092CD5ab04fEBD11C2A1725E1eb90b
Solidity Version	0.8.24
Optimization	None
Estimated Launch Price	~0.002132 USD

We are an 18 Decimal Contract on Polygon Matic. You can add the token into your wallet of choice, including metamask. The owner address is the development wallet with the tokens currently, and has minter status, as it minted the contract. At present, no additional tokens will be minted, with the exception of tokens directly on ECHO. The Echo Shard Tokens will go under the same brand name and ticker as EchoQS on Polygon, and will share the same token quantity. They are a 1:1 paring, akin to how Binance SmartChain BEP-2 and BEP20 work, and will be interchangeable with each other. Listing Price is an estimate based on our best case scenario.

The Tokenomics of the token are as follows:

EchoQS Tokenomics



Development: This includes any future development for the chain, such as testing shard contracts, bridges, software and any other physical development where we need to test transactions. Largely, these tokens will only be used to test “Non-ECHO” portions of software, as the Echo Portions will have a Testnet Token, tECHO, for this purpose.

Team Controlled: This includes tokens owned by the initial development team for their own holding, as well as any tokens kept for emergency use. Not that there will be likely any emergent issues, but should there be an issue that arises we want to be prepared. The development team has agreed per principle that the amount of team controlled tokens will be NO GREATER than 6%, and at present the distribution is 1.5% team owned held tokens, to 3.5% emergency.

ICO/Vesting: This constitutes any and all tokens for presale and vesting purposes. We are still researching into all revenues and ideally would like to do outside vesting, ICO and if possible a direct exchange launch.

CEX Listing: This constitutes any and all tokens we have set aside for exchange listings. This may increase or decrease over time, but we initially wanted the Exchange listing and ICO/Vesting to have the same allocation.

EVM-to-EchoQS Bridge: This is for swapping between EVM ECHO on Matic and ECHO on EchoQS, when people trade back ECHO on EchoQS for Matic ECHO. This will be variable as buyers trade and use the token. Realistically, this can be a part of the expansion portion.

Reserved for Future Expansion: This is for launching tokens on non EVM chains. When a new token is launched to a NON-EVM chain, an appropriate amount of this token will be burned.

Part II. EchoQS Software

EchoQS has a robust suite of software being developed for it, primary of which are EchoQS Terminal and EchoQS Nexus. Echo's Sharding Contract will be discussed later in the whitepaper. Both of these software have unique benefits and features, and will be your main way to interact with the EchoQS Network Shards.

EchoQS Terminal is designed for Embedded Systems, Servers and Low Energy Use systems, like Raspberry Pi, and is akin to other such products on other chains, like Geth and Terrad. It is a command line interface that will allow you to do the following, but are not limited to:

1. Making and sending transactions directly
2. Viewing created blocks
3. Tracking wallet holdings and values
4. Creating new Wallet Addresses
5. Participating in On Chain Voting
6. Transferring and Sending Assets

Echo QS Nexus, and Nexus Mobile for Cellular Devices, is a more advanced platform for ECHO, akin to Metamask and Atomic Wallet. It includes direct access to EchoQS Terminal, as well as the following:

1. Direct Wallet Listings
2. Token to Token pairings and transactions
3. CEX Connection Functionality
4. Futures Options (I.E. Futures based on the supported chains and the shards)
5. Automation Functionality
6. Multiprocessor Support
7. Financial Calculations (Like what you can do on TradingView)

The Time line for Software Completion is as follows:

EchoQS Terminal (Windows x64): Q2 2024

EchoQS Nexus (Windows x64): Q3 2024

EchoQS Terminal (Unix, MacOSX, M1): Q3 2024

EchoQS Nexus Mobile: Q1 2025

EchoQS Nexus (Unix, MacOSX, M1): Q1 2025

These dates are not final and can either be expedited or extended depending on development lifecycle. It should also be noted that there will be development previews released during these time frames to testers, vesting teams and specialty groups so we can ensure the software works and functions properly. Instructions on how to join a test group will be released in the future. Vesters will get access by default. Please note that features will be hit or miss during the development phases, and there will be bugs. We will of course mention as well this when the development versions get released.

Part III. EchoQS Sharding Contract

The backbone of EchoQS is its sharding contract. The sharding contract does not actually process the transaction, rather it handles the data returned by the transaction finalization, as well as internal information about the working shard, like the owner, the address for contact, its holdings, and auxiliary functions. The Sharding Contract is designed to be the reach point for processes and applications wanting to make a call onto a shard, which generally follows this process:

1. An application or end user makes a request through either EchoQS Terminal or an outside application.
2. EchoQS is invoked which checks the requested sharding contract for its address, transaction state, and whether the requested chains are supported.
3. EchoQS receives the sharding data and attempts to make contact with the shard and send the data for processing.
4. Shard processes required data from the provided chain information, then sends its results back to the requester instance.
5. Shard, sends completion information to the Sharding Contract which is updated on the respective chain.

As stated the sharding contract can be configured in many ways, and is extendable. A person can set up their instance of EchoQS to support only specific chains, or be open to any ongoing transaction. As well, the contract can be configured with new auxiliary functions. Part of this is due to a new feature that we have implemented: Selective Owner Calling. As part of this process, the contract can be configured so that specific functions are only available to OnlyOwner, a Solidity based owning mechanisms pioneered by OpenZeppelin. This, in turn means that only the shard contract minter can call specific functions, allowing for more extensive and protected applications use. Keep in mind, all shard functions are exposed via emit events in the contract, and can be accessed by any application that is EchoQS compliant, as long as it is not locked under OnlyOwner.

Here is a list of Programming Languages the Contract currently supports and will support in future:

Supported:
Solidity

Implementation In Development:
Javascript / TypeScript
Rust
Python
C#
Java / Kotlin

This list is not exhaustive and will likely be expanded in future.

Part IV: Morpheme HyperCube

Morpheme Hypercube is a new class of wallet generation that aims to be as secure as possible, while containing a substantially high number of valid addresses. Unlike other wallet methods, like EVM or BTC SegWit for example which allow you to make multiple addresses from the same data, Morpheme Address only provide 1 address, but are non reversible. It could generally be accepted that you could not reverse engineer a wallet address for morpheme as the time needed to do so would be longer than the time needed to collapse all Black Holes into Iron Stars under the Iron Star Theory. This is all while retaining the same number of addresses as Ethereum.

Unlike Ethererum and BTC, where the users use BIP word lists to determine your address, we do something much more secure. We utilize 1024 bit skein graphs of the volumetric calculations of a moving Tessarect, or Hypercube. While this may sound absurdly complex, it is simple to visualize it in a different way. A Tessarect is a 4 Dimensional Cube. Imagine that cube moving, and as well imagine all the space in that moving 4 Dimensional cube is the list of valid addresses. Now pick any random point in that space, keeping an X,Y,Z, and W axis. That point data, is the data used to generate your address. An Example of the address for reference:

```
{
  "MorphemeCubeBase": {
    "cubeWPos": "J77x+zGZQxmt0qJsj7IxLjgy2iQafghiD3sXIgYzc20=",
    "cubeXPos": "XyjHRHozSPAS5ORz4I2KGu9qw6qF1HIo+p+FY0Hi6Zo=",
    "cubeYPos": "DvQAkA1GGAujK9LJAK+E9k2krxf01Q9uPwP4m2AWjk=",
    "cubeZPos": "CjD1qiEhliq+S+NkPSLcMFmXS71+Vu2SsYO9ouYtxw0=",
    "MHCubeChecksum": "HvyKB0NqgLE=",
    "MHCubeDirectResult":
    "XyjHRHozSPAS5ORz4I2KGu9qw6qF1HIo+p+FY0Hi6ZoO9ACQCUIY C6Mr0gkCT4T2TaSvGN/TVD24/A/ibYBaOQow9aohIZYqv
    kvjZD0iwjBTF0u9f1btkrGDvaLmLccNj77x+zGZQxmt0qJsj7IxLjgy2iQafghiD3sXIgYzc20="
  },
  "walletFor": "Echo",
  "walletAddress": "ECHO8NOHTEDNDN2UONDV9SR1CKNKIKHMRXJYZLESPDDDYCNHWP9V1U2BNG",
  "walletPassword": "6ksXJDs4vqZNVsG3wNYQvR9zekdmCKAsGthPx58QXmZ",
  "walletRecovery":
  "A1NB2ENHTB6QYSQODT1NIISMEYRZ5XELOKTTJSBLBKQA4GORUKPLTWSUXRCFS14PFGCTJBYXBXXVXL1UKX9UJD
  CVVGNUCJWQMNYI9RPQQA4D8DUZVNNTPRU6EE96XBBKTR35KTOPWBQAAENRNPk4ISHU2JN5FBJUJ5QPR5UK9JN
  6XN",
  "walletBalance": 0
}
```

The addressing method can be modified and differing IDs place in front of the base address, like on Cosmos. ECHO in this case is the ID. Your password and recovery are auto generated as well, based on this information. This makes the wallets secure in such a way that nobody can make a low level password that can be easily guessed. This also is just a subsection of the wallet address. There will be sections for addresses that are generated for all compatible chains. As part of the process of transaction processing, you will earn rewards in the chains being transacted in, as gas fees. For example, if you get a transaction in EVM and BTC, your wallet will be provided a small portion of EVM and BTC as fees for processing the transaction. These fees will be paid by the transaction requester as part of normal gas processes.

Morpheme Hypercube will eventually be released as a separate library implementation that will be able to be used in other blockchains and decentralized applications. Our goal is to facilitate its usage, much like we want EchoQS to flourish in the digital assets industry.

Part V: Current Team



Alexander "Axyl" Frankland CTO, Lead Technology Developer.

Associates Degree In Software and Database Engineering
Self Taught Cryptographic Securities Development During Pandemic Lockdown
Over 3 Years Solidity Development Experience.

Previously Worked as Classic Core Interoperability Manager for Terra Classic
Spirit Animal: Otter

Linkedin: <https://www.linkedin.com/in/a-a-j-frankland-16647a225/>

Twitter: <https://twitter.com/AxionSemptraV>

Part VI: Roadmap

Part VI: Frequently Asked Questions

1. What does the QS in EchoQS Stand For?

The QS stands for *Safe Solidity Software Service*. (Quad S). Initially, this project was aimed at bridging EVM to Cosmos only, and this would allow the user access to any solidity software on any EVM chain to bridge to Cosmos.

2. Are you not just another blockchain bridge? Why use you over an existing bridge?

We are not a blockchain bridge in that sense. We are not for taking a Token on one chain and making it appear on another chain, though you could use EchoQS for that purpose. We allow cross-chain direct contract calls, and is our main purpose. As an example, imagine writing a piece of software that detects when a new Bitcoin Block is minted, and then calls an EVM contract to mint a token. EchoQS can help facilitate that purpose.

3. How is it possible to do cross-chain calls if blockchain contracts are immutable and cannot be edited? Are you exploiting an existing on chain software bug?

We are not exploiting any known software bugs. EchoQS Terminal uses API, JSON and Rest Clients primarily, to access exposed functions. This is similar to going to a blockchain scanner's website and connecting with Web3, then running a contract function directly.

4. Do I have to deploy the Sharding Contract Manually for my software or can I use an existing shard?

At the present moment, since there are few shards available, we are advising to push your own shard to chain, especially if you are in the development phase. The shard contract is compatible with Ethereum Shanghai only so you will need to use Shanghai chains for development shard testing. In future, this will be able to be done with EchoQS Terminal and will mint to chain directly on Shard Creation. Once more shards are adopted you can freely use any open shard. But keep in mind, some shards may not support your blockchain you are developing on so always check before hand.

5. Do you cover the costs of EchoQS Shard launches?

At present, no. this is something we may look at doing in future.

6. When will there be a Presale ICO?

This Date is To Be Determined, but ideally will be in March, 2024.

7. When Will Vesting Options Start?

Vesting Options are being investigated. Please stay tuned for more information.

8. I am a Vesting Company or I work directly with a Vestment Firm, and want to potentially invest in EchoQS. Who can I contact?

Please reach out to devops@echoqs.org and we will reach back to you as soon as possible.

9. You stated you are looking to launch onto an exchange. What exchange is it and when is it happening?

We are investigating exchange listings, but please keep in mind, that under all exchange listing contracts, we are expressly forbidden from discussing contractual deals or launch listings before express approval from the exchange.

10. What is the amount of funding you are looking for?

When this project was first an idea, we came to an absolute upper ceiling of 100,000BNB. We used BNB as a baseline as that chain is the most commonly used ICO chain. The costs and expenditures of building an entire blockchain and supporting software warranted such a high number, and would allow us funding so we can pursue all aspects of the project. In the end, we ideally want to make somewhere around \$3,000,000 to \$5,000,000 USD to ensure we can truly succeed but any and additional above that will only help us reach farther heights. These numbers are largely what we expect to see from a Blockchain Token ICO based on previous launches from other chains.

11. I am a person with Valuable Skills and would like to work for the project. Can I apply somewhere?

We are not taking hiring applications at this time. Any "Service Solicitation" in our discord will be removed and banned.

12. Will there be a Software Development Kit (SDK) for interaction with EchoQS?

Yes there will be a general purpose SDK that will be released in the future to tie into EchoQS Terminal. The Launch Date is To Be Determined at this time.

13. I Work for X Blockchain and would like my blockchain supported on EchoQS. Who do I contact for this?

Please reach out to marketingteam@echoqs.org for blockchain acceptance inquiries. Please note, we will only respond to persons who directly work for chains. If you want your blockchain supported, and you are a holder of staker of a token. Please reach out to that blockchain development team and get them to contact us.

14. How do I join the development testnet team?

Testnet Development will not occur until later this year. Please Stay Tuned for Signup information.

15. What is a Shard and what does it mean to be a Optimistic Rollup?

A Shard is a place where a portion of the blockchain exists. Instead of it being in one centralized location, a Shard only stores part of the blockchain information. This allows for a blockchain to not take up as much space while still providing full access through a scanner site or application. Optimistic Rollups allow for the shards to not have to process information on chain. EchoQS Terminal does the transaction processing, and the shard only store nominal information. As well, the Rollup, allows multiple transactions to be compiled into one, so say there are 10 transaction between ETH and ATOM, all of them could be merged into 1 EchoQS Transaction, instead of each being processed separately.



Part VII Project Timeline

Q1 2024:

Launch Token ICO/Vesting
Finish EchoQS Sharding Contract
Launch Beta Build of EchoQS Terminal
Launch Echo on an Exchange

Q2 2024:

Launch EchoQS Terminal
Additional Exchange Listings
Launch Beta Build of EchoQS Nexus
Launch Ports of EchoQS Sharding Contract

Q3 2024:

Launch Echo QS Nexus
Launch Beta Build of EchoQS Terminal For Unix, MacOSX and M1
Launch Morpheme Hypercube Addressing Library Migration to POL from MATIC
Launch EchoQS Interchain Token on IBC

Q4 2024:

Launch Beta Build of EchoQS Nexus Mobile
Launch Beta Build of EchoQS Nexus For Unix, MacOSX and M1
Launch Beta Build of EchoQS Terminal for Embedded Systems
Launch EchoQS Interchain Token on Polkadot Parachain

Q1 2025:

Launch EchoQS Nexus Mobile
Launch EchoQS Nexus For Unix, MacOSX and M1
Launch EchoQS Terminal for Embedded Systems
Launch Version 2 of Echo Sharding Contract
Additional Exchange Listings

Q2 2025:

Additional Exchange Listings
Additional EchoQS Token Launches on New Chains

Part VIII: Tokenization Information

Token Name	EchoQS Interchain
Token Ticker	ECHO
Decimals	18
Launch Chain	Polygon Matic (Chain ID 138)
Quantity	100,000,000,000.000000000000000000 ECHO
Owner Address	0x95828C910191739ed5C2AE1405aac264752fbdF0
Contract Address	0xD97751892c092CD5ab04fEBD11C2A1725E1eb90b
Solidity Version	0.8.24
Optimization	None
Est. Launch Price	0.0021 USD / Token

For further questions or inquiries please check the following links:

Twitter: <https://twitter.com/EchoQSTeam>

Devops Team: devops@echoqs.org

Marketing Team: marketingteam@echoqs.org

Website: <https://echoqs.org>

Discord: <https://discord.gg/D9zHYtWVYM>

Telegram: <https://t.me/echoqs>