

# Echelon DAO



## Abstract

This is both a technical and general whitepaper explaining some aspects of the Echelon DAO and its products. This paper has been drafted as version 1.0 on December of 2020. This paper covers the information, protocols and contracts that enable the governance of Echelon DAO, the contract addresses of the current governance team alongside certain products and their individual contracts and features brought forward by the Echelon DAO. Some additional information is also shared that may seem of interest to anyone wanting to join, or know more off, the DAO. The paper will also focus on echoSwap, an innovative Uniswap fork brought forward by Echelon DAO. For any enquiries, contact us at [echelon.echoswap@gmail.com](mailto:echelon.echoswap@gmail.com).

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# Introduction

## DAO

Echelon DAO (Decentralized Autonomous Organization) is a transparent organization that is governed by smart contracts, controlled by the Echelon team, on the Ethereum blockchain. All of Echelon DAO's financial transactions and development decisions are performed and maintained on the Ethereum blockchain. Echelon DAO provides a transparent digital ledger for any members, investors, or outside parties to view the workings of the DAO. All decisions made in or by the Echelon DAO will first be proposed and voted on by the Echelon DAO team members and community token holders and then implemented by the Echelon team through following certain fixed protocols.

## ECHO

ECHO is the governance token distributed to the community through the Echelon DAO. The different ways in which ECHO can be obtained and utilized will be discussed later in this paper. Each individual ECHO represents one governance voting right on the Echelon DAO. The tokenomics on ECHO will also be discussed later in this paper. ECHO enables the Echelon DAO to function in a fully decentralized manner with no central authority making decisions regarding the DAO's actions and products. Participating ECHO users will also receive incentives for the input into the DAO. Future uses cases for ECHO will also be touched on.

## Echelon DAO structure

The Echelon DAO is set up to prevent the principal-agent dilemma. **“Principal-agent dilemma”** - This dilemma occurs when the agent of any organization has the ability to make decisions on behalf of another person or entity in the organization which could lead to impacting that entity or person in a negative manner. This dilemma usually occurs when an agent acts in his own interests in contrast to that of the organization. The Echelon DAO consists out of a main team and board members (token holders) and is thus known as an assembly type DAO where a large number of members interact in decision making with an agency via smart contracts. The Echelon main team are a set of people whose interactions are governed by a set of self-enforcing open-source protocols and smart contracts. The main team and Echelon members are not bound together by any legal entity or any formal legal contract but completely motivated and incentivized by the ECHO token utility and rewards. The only governing law present in the Echelon DAO is the decentralized and transparent protocol and smart contracts regulating the actions taken by the Echelon team and none other. The Echelon DAO has no single point of control, or failure. There is no central management but only indirect coordination between DAO members which is triggered by incentives and controlled by code.

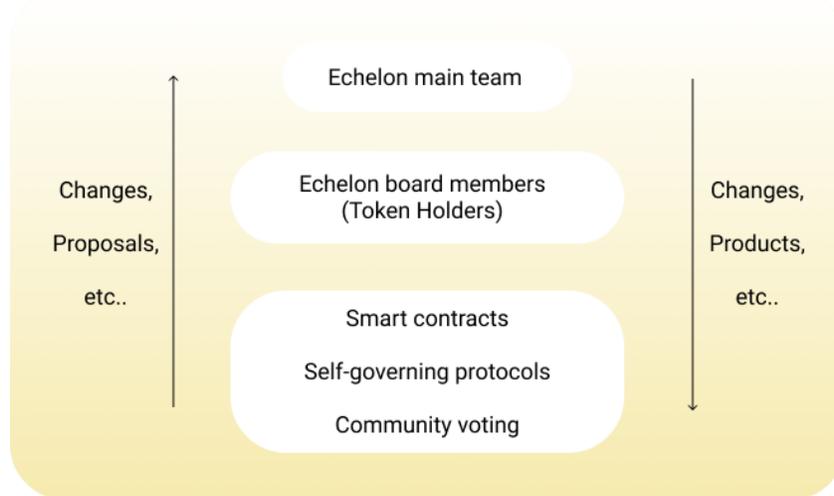


Figure 1 - Basic Echelon DAO structure

The above figure is a very basic representation of the Echelon DAO structure. In the following chapters of this paper this figure will be broken down and expanded on. Note: This is not a hierarchy structure but rather a loop cycle.

## Echelon DAO scalability

The Echelon DAO is referred to as a “super-scalable” structure. The DAO becomes more effective as it grows in members and interactions.” With this terminology, the DAO is a “super-scalable organization”, that assimilates the efficiency, agility and scalability of free markets, while maintaining the coherence of a startup and the ability to pursue scalable missions”-Alchemy.

### Smart contracts and self-governing protocols

#### Echelon Protocols

The Echelon team and or any member on the team is to follow the following protocol when any of the following actions are to be taken by the DAO. A more in detail explanation of these protocols are found in the Echelon Protocols section later in this paper.

Echelon team addition governance protocol – This is the protocol implemented by the Echelon main team when a new main team member is added to the Echelon DAO.

Echelon team subtraction governance protocol – This is the protocol implemented by the Echelon main team when an existing main team member is taken off, or leaves, the Echelon DAO main team.

Echelon new proposal governance protocol – This is the protocol implemented by the Echelon main team when a new proposal is suggested for implementation by the Echelon DAO board members.

Echelon proposal accepted governance protocol – This is the protocol implemented by the Echelon main team when a new proposal is suggested and successfully voted for to be implemented by the Echelon DAO board members.

Echelon proposal rejected governance protocol – This is the protocol implemented by the Echelon main team when a new proposal is suggested but not successfully voted for to be implemented by the Echelon DAO board members.

As of now these protocols are the main protocols Echelon DAO will launch with. Any new protocols that will be added to the Echelon DAO protocol list will be in an updated whitepaper version and made readily available to the public.

#### Smart Contracts

The Echelon DAO and its products consists out of the following smart contracts. A more in detail explanation of these smart contracts are found in APPENDIX-Smart-contracts.

Echelon DAO – This is the smart contract(s) that creates the basis and structure of the Echelon DAO, it’s main team members and its functions. The Echelon DAO is built on top of the Alchemy framework ensuring a trusted and well-verified basis which also incorporates reputation.

New Proposal – This is the smart contract used for any new proposal made by the Echelon board members.

ECHO Token – This is the smart contract of the official ECHO governance token.

Crowdsale - This is the smart contract of the official ECHO Token Crowdsale.

echoSwap – This is the smart contract(s) of Echelon DAO’s first major project, echoSwap.

## The Alchemy DAOstack

The DAOstack is formally known as an operating system for collective intelligence and in the beginning phases of Echelon DAO will be used to make governing decisions on. At the base of the DAOstack exists a modular and adaptive framework for governance and collective value management, known as Arc. On the official [DAOstack whitepaper](#) they describe Arc as follow: “Just as HTTP allows the creation and interoperability of web sites and web applications, Arc allows the creation and interoperability of web companies, collaborative apps and DAOs, as well as the crypto-economic alignment of their interests. Implemented with novel Holographic Consensus protocols that allow a scalable consensus, the result is a new web of open collaboration, in which global networks can self-organize around shared goals and joint action. We believe that DAOs will impact every territory of life and will jumpstart the evolution of society toward a more cooperative and sustainable future.”

DAOstack is said to be an operating system for DAOs. Thousands of open-source creators can produce decentralize applications while working together “inside” the DAO. These creators will be incentivized by participation rewards and governed by the voters on the DAO.

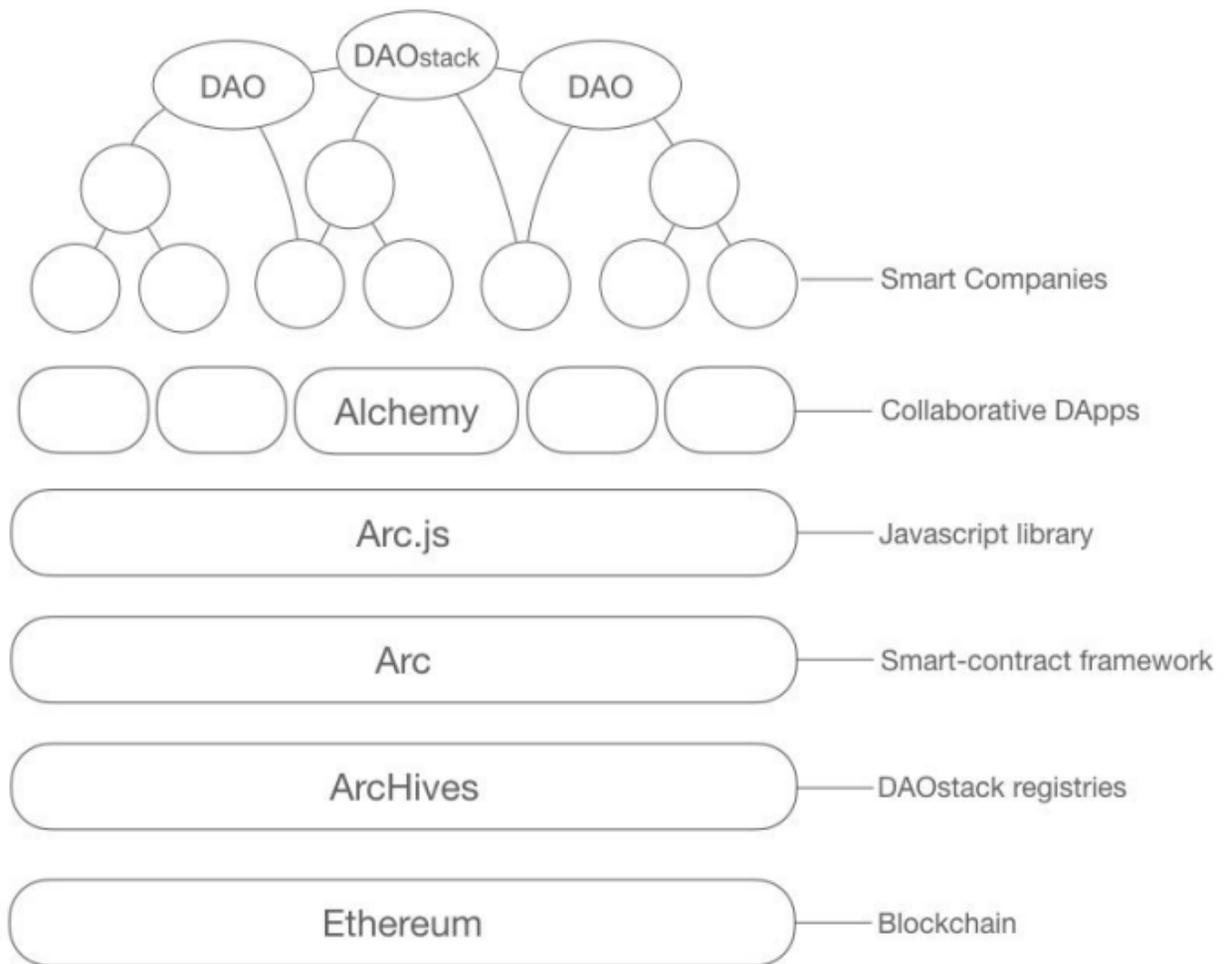


Figure 2 - DAOstack structure

## Echelon DAO governance

Before governance is discussed, we look at some DAO governance problems that can occur by referencing [the Alchemy DAOstack whitepaper](#).

DAOstack states that in most cases, the simplest possible agency/member manages an ETH fund and internally has its native token, which in the case of Echelon DAO would be ECHO tokens. There are then originally three different rules of governance:

1. A collective decision to send ETH from the main wallet to any other Ethereum address for a certain reason such as development.
2. The issuance of the DAO's native token (ECHO) to buyers,
3. The issuance of ETH to native token holders sending back their native token and not being part of the DAO any further.

As seen, there are quite a few immediate issues with this governance system. The following issues are directly referenced out of the [Alchemy DAOstack whitepaper](#).

1. It might be very difficult to recruit a majority of ECHO holders to vote on one proposal. This issue is related to governance scalability.
2. The DAO can easily be corrupted by a 51% attack. Here is an example explaining this: Say, there is \$100m worth of ETH in the Echelon DAO wallet. And, say, that it costs \$50m to buy half of all ECHO governing tokens in the market. Any agent/member with enough liquid capital can purchase just above half of the ECHO tokens in the market, and immediately thereafter make a proposal to the Echelon DAO to send all ETH from the main wallet to his/her own individual address. In this example, this user then steals around \$50m worth of ETH.
3. Another concern could be that those who hold a large number of tokens would not necessarily make the best investment/development decisions.
4. Another type of attack can happen as well. This attack is additional attack on the one mentioned above. Say for example a proposal is made to distribute all of ECHO tokens into addresses that will vote yes on this proposal to send all ETH to a malicious member. Most likely, in the beginning, decent members will refrain from approving this cunning proposal; but once the first approvals will come, there will be a growing pressure for approving it (and not losing all of your money), until an avalanche effect will take place and the cunning proposal will be approved.
5. This comes to the realization that such governance system is heavily flawed and needs additional protocols put in place to counter these flaws.

To Prevent the above issues from happening, the following steps are set into place for the time being:

1. The Echelon main team may only act in a manner that follows the governing protocols described earlier in this paper.
2. The Echelon main team wallet is set to a different wallet than the development fund wallet.
3. ECHO will only be distributed once every 6 months for development purposes. This does not include ECHO purchases.
4. Not more than 2% of ECHO holdings may be distributed to development per half yearly timeframe.

## Reputation

The reputation system, alongside the rules discussed above, used in the Echelon DAO will also help solve most problems found in the earlier mentioned flawed governing system.

### **The reputation system of the Echelon DAO works as follow:**

- Aside from the ECHO tokens any user is staking, an additional non-tradeable reputation token will be assigned to each address. One agent cannot transfer his/her reputation to any other agent.
- All users' votes will be recorded and stored into an array where the outcome of any voting decisions will determine the release of reputation tokens to certain users who voted.
- Users with high reputation power will be rewarded
- The better reputation a user has, the more influence power that user will have.

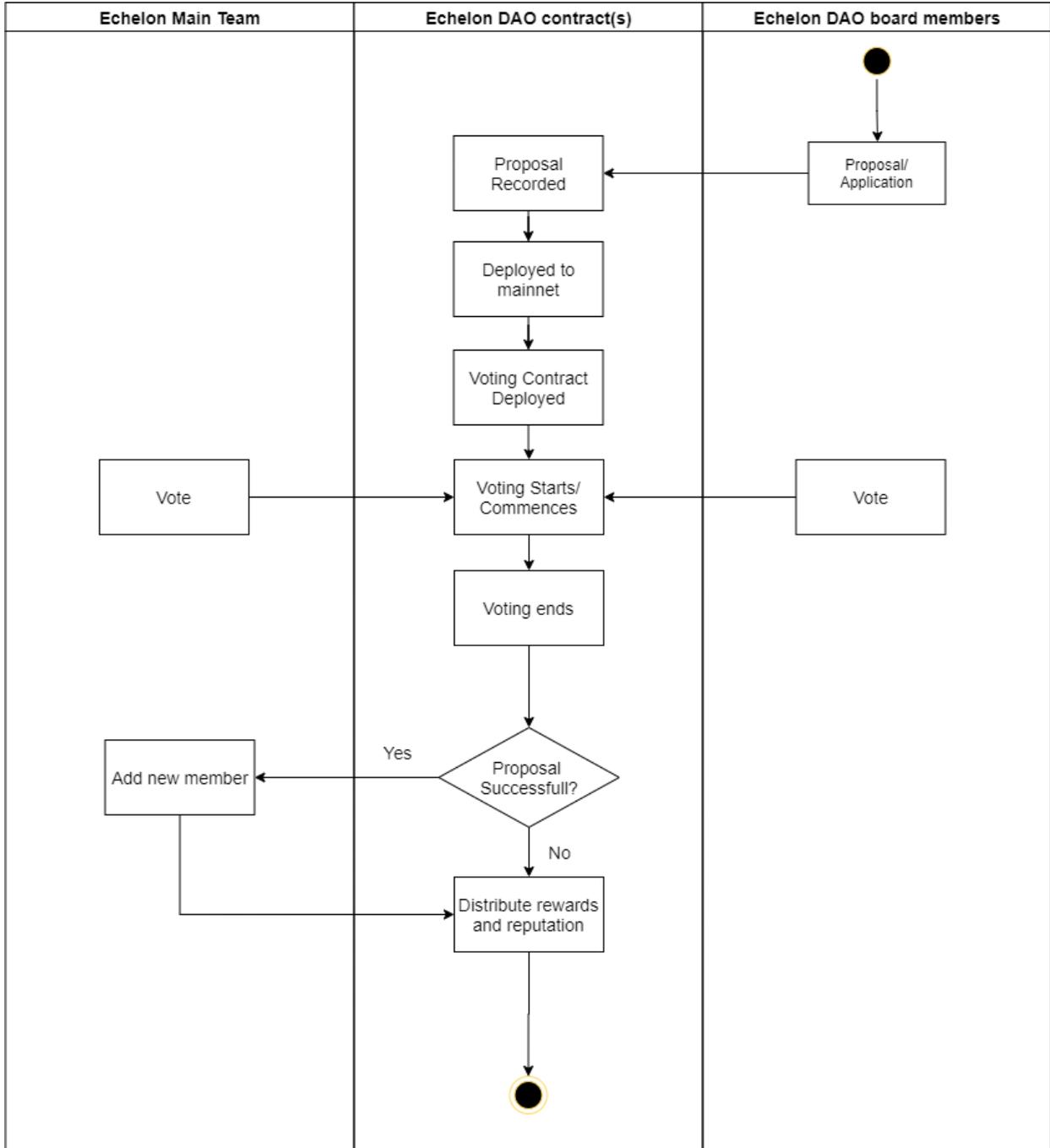
## Governance Structure and Functionality

1. Decisions will be made via smart contract proposals and voting smart contracts initiated by the Echelon main team. Any user holding ECHO tokens can vote for an outcome.
2. There are certain global constraints set into place that overrules any successful proposal. This will be discussed later in this paper.
3. The ECHO token will serve as the Echelon DAO economy measure. The utility and rewards of this token is discussed later in this paper.
4. The Echelon DAO will use the ECHO/ETH pairing to collect funds via the token-sales.
5. The Echelon DAO has the right to change its governance system by approving or removing certain elements.

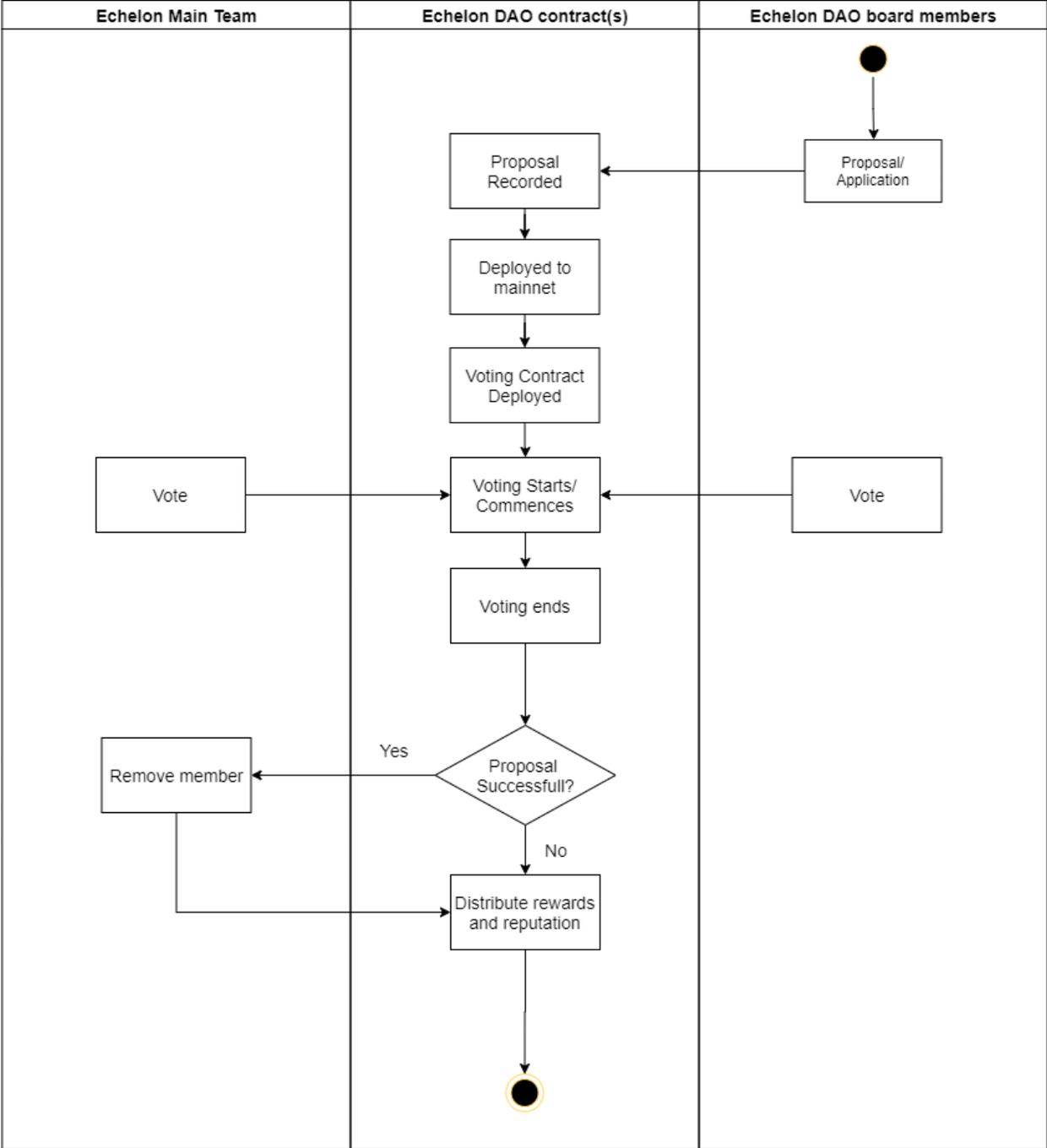
## Echelon protocols

The following section shows a graphical representation of the protocols followed by the Echelon DAO main team members (Note: These protocols are subject to change in an update whitepaper if vot4ed on by the community):

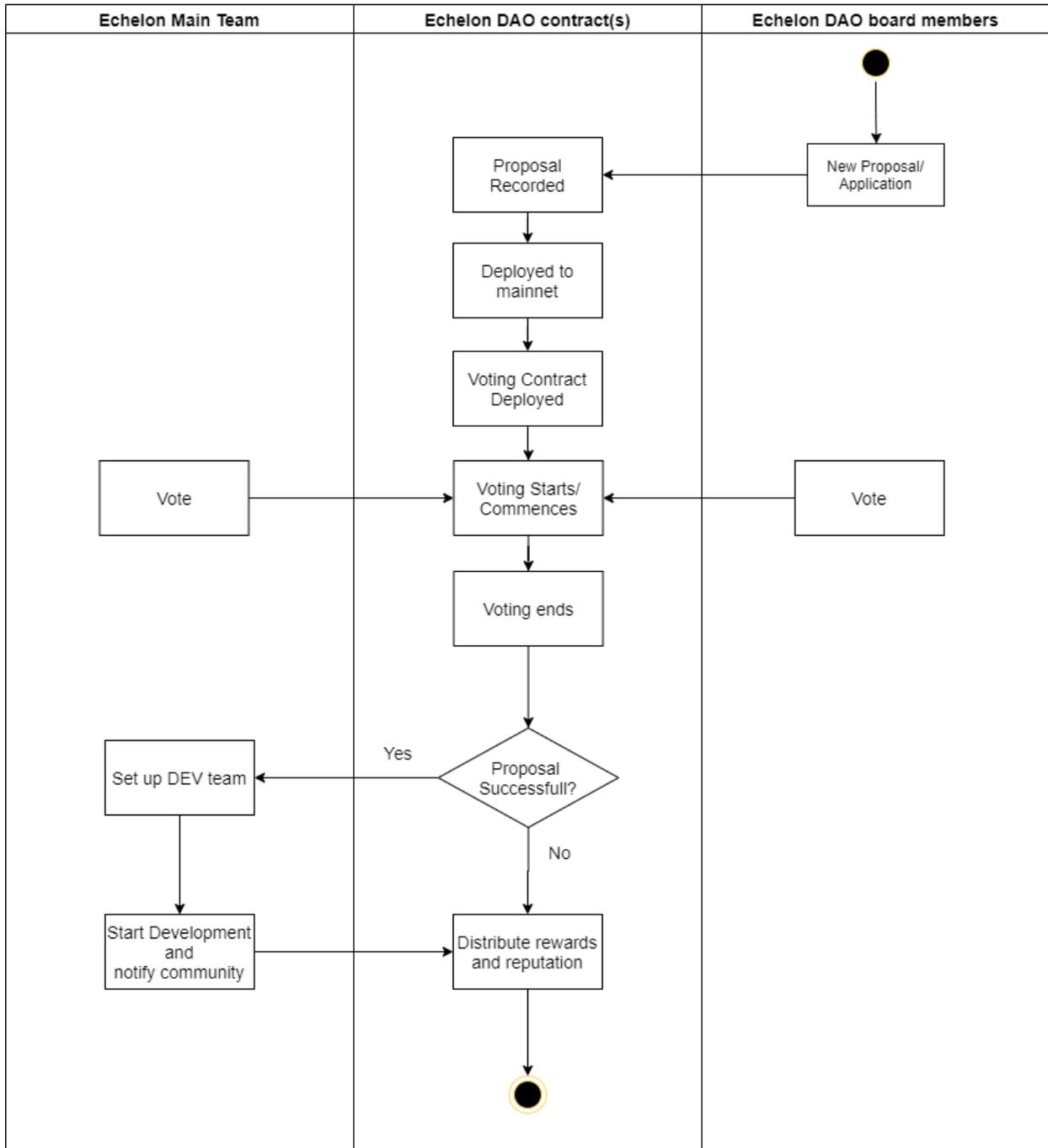
Echelon team addition governance protocol



### Echelon team subtraction governance protocol



### Echelon new proposal governance protocol (Acceptance and Rejection)



## Echelon smart contracts

The following section links to the official smart contracts deployed on the Ethereum mainnet that governs the Echelon DAO and its additional products:

Echelon DAO Smart Contract: (To be deployed alongside Whietpaper v2 update)

Echelon DAO ECHO Token Contract: (To be deployed alongside Whietpaper v2 update)

Echelon DAO Main Team Wallet: 0x515bE4192f036226A6FF68F4CbEA10050046F936

Echelon DAO Dev wallet: 0x91335780A077F566Ab4a5D09c1f364123167d981

See APPENDIX-Smart-contracts for the actual code.

## Echelon DAO Global constraints

As stated in the “governance structure and functionality” section, there are certain global constraints which overrules any accepted and/or successfully voted on proposal that the Echelon DAO enforces. These global constraints are discussed below.

1. No member of the Echelon DAO main team or board may request/propose fund allocation for non-development purposes.
2. No member of the Echelon DAO main team or board may request/propose fund allocation that exceeds >15% of Dev wallet.
3. No member of the Echelon DAO main team or board may request/propose Echelon main team wallet funds.
4. At least one member of the Echelon DAO main team needs to be present on the Dev teams working with Echelon DAO funds
5. No more than 40% of Echelon DAO funds may be allocated at once

Note: Funds include ETH and ECHO. More global constraints are to be set in whitepaper v2.

## ECHO Token

The following section covers the ECHO token, the official governance and utility token launched and represented by the Echelon DAO.

### ECHO contract

The ECHO Token Contract can be found in the APPENDIX-Smart-contracts section.

### ECHO utility

As of now, whitepaper V1, the ECHO Token will be used as a governance token where users use the token alongside a reputation score to vote on new proposals made for the Echelon DAO to develop and/or impose. The ECHO Token will also be used to gather the necessary funds to launch the DAO and its first few projects.

### ECHO tokenomics

Total Supply: 2 100 000

Max Supply: 2 100 000

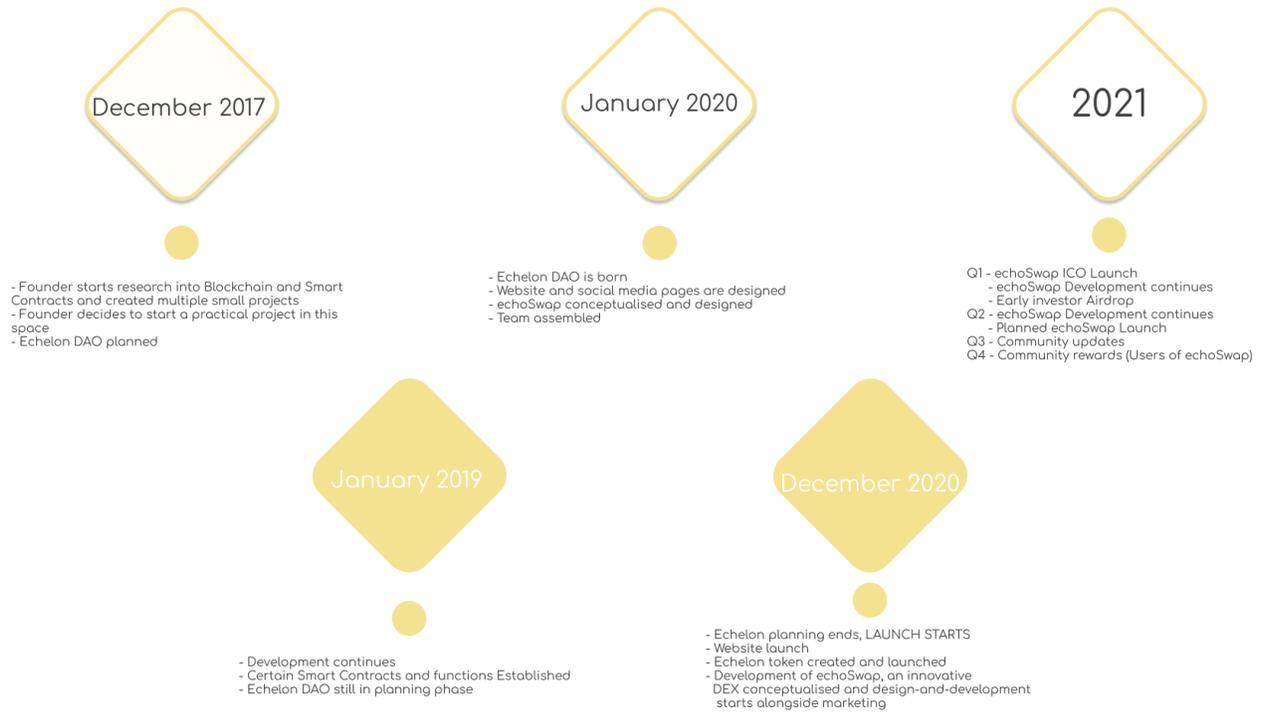
Min Supply: 21 000

Main Team Allocation: 400 000 ECHO

Dev Team Allocation: 500 000 ECHO

Public Allocation (DEX's, CEX's, SALES): 1 200 000 ECHO

## Echelon DAO Roadmap



## Echelon DAO updates

### echoSwap

One of the first projects the Echelon DAO will work on is an innovative Uniswap fork called echoSwap. This updated fork will include added benefits and features including impermanent loss solutions, slippage solutions and many more.



Connect Wallet

From  
0.0  ETH ▾

To  
0.0 Select Token

SWAP

My Account:

Market Cap:

STAKE

Total Staked:

Figure 3 - echoSwap demo

## Where to find out more

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

Discord: <https://discord.gg/Krx3GqKR>

Email: [echelon.echoswap@gmail.com](mailto:echelon.echoswap@gmail.com)

Website: <https://www.echelondao.com>

Telegram: <https://t.me/joinchat/Q2giJQcc9PR7UNHY>

Medium: <https://echelondao.medium.com/echelon-dao-d7ab030ac02d>

## Conclusion

This concludes version 1.0 of the Echelon DAO whitepaper. As stated before, this paper will be later updated to a version 2.0. For any further questions or enquiries, see the next section.

## References

Alchemy DAOStack Whitepaper <https://daostack.io/wp/DAOstack-White-Paper-en.pdf>

Rainchek

## APPENDIX-Smart-contracts

```
pragma solidity ^0.4.24;

// -----
// Token contract
//
// Deployed to : 0x515bE4192f036226A6FF68F4CbEA10050046F936
// Symbol   : ECHO
// Name     : ECHO Token
// Total supply: 2 100 000
// Decimals : 18
//
// -----

// -----
// Safe maths
// -----

contract SafeMath {
    function safeAdd(uint a, uint b) public pure returns (uint c) {
        c = a + b;
        require(c >= a);
    }
    function safeSub(uint a, uint b) public pure returns (uint c) {
        require(b <= a);
        c = a - b;
    }
}
```

```

// -----
// ERC Token Standard #20 Interface
// https://github.com/ethereum/EIPs/blob/master/EIPS/eip-20-token-standard.md
// -----
contract ERC20Interface {
    function totalSupply() public constant returns (uint);
    function balanceOf(address tokenOwner) public constant returns (uint balance);
    function allowance(address tokenOwner, address spender) public constant returns (uint remaining);
    function transfer(address to, uint tokens) public returns (bool success);
    function approve(address spender, uint tokens) public returns (bool success);
    function transferFrom(address from, address to, uint tokens) public returns (bool success);

    event Transfer(address indexed from, address indexed to, uint tokens);
    event Approval(address indexed tokenOwner, address indexed spender, uint tokens);
}

```

```

// -----
// Contract function to receive approval and execute function in one call
//
// -----
contract ApproveAndCallFallBack {
    function receiveApproval(address from, uint256 tokens, address token, bytes data) public;
}

```

```

// -----

```

```

// Owned contract
// -----
contract Owned {
    address public owner;
    address public newOwner;

    event OwnershipTransferred(address indexed _from, address indexed _to);

    constructor() public {
        owner = 0x515bE4192f036226A6FF68F4CbEA10050046F936;
    }

    modifier onlyOwner {
        require(msg.sender == owner);
        _;
    }

    function transferOwnership(address _newOwner) public onlyOwner {
        newOwner = _newOwner;
    }

    function acceptOwnership() public {
        require(msg.sender == newOwner);
        emit OwnershipTransferred(owner, newOwner);
        owner = newOwner;
        newOwner = address(0);
    }
}

contract ECHOToken is ERC20Interface, Owned, SafeMath {

```



```
function transfer(address to, uint tokens) public returns (bool success) {
    balances[msg.sender] = safeSub(balances[msg.sender], tokens);
    balances[to] = safeAdd(balances[to], tokens);
    emit Transfer(msg.sender, to, tokens);
    return true;
}
```

```
function approve(address spender, uint tokens) public returns (bool success) {
    allowed[msg.sender][spender] = tokens;
    emit Approval(msg.sender, spender, tokens);
    return true;
}
```

```
function transferFrom(address from, address to, uint tokens) public returns (bool success) {
    balances[from] = safeSub(balances[from], tokens);
    allowed[from][msg.sender] = safeSub(allowed[from][msg.sender], tokens);
    balances[to] = safeAdd(balances[to], tokens);
    emit Transfer(from, to, tokens);
    return true;
}
```

```
function allowance(address tokenOwner, address spender) public constant returns (uint remaining) {
    return allowed[tokenOwner][spender];
}
```

```
function approveAndCall(address spender, uint tokens, bytes data) public returns (bool success) {
    allowed[msg.sender][spender] = tokens;
```

```

    emit Approval(msg.sender, spender, tokens);
    ApproveAndCallFallBack(spender).receiveApproval(msg.sender, tokens, this, data);
    return true;
}

function () public payable {
    revert();
}

function transferAnyERC20Token(address tokenAddress, uint tokens) public onlyOwner returns (bool
success) {
    return ERC20Interface(tokenAddress).transfer(owner, tokens);
}

function burn(uint256 _value) public returns (bool success){
    require(balances[msg.sender] >= _value);

    balances[msg.sender] -= _value;
    _totalSupply -= _value;

    return true;
}
}

```

## Disclaimer

This document is both a general and technical whitepaper setting out the current and future developments of the Echelon DAO, which includes the ECHO token, Echelon DAO and any other processes and projects associated with it. This paper is for information purposes only and is not a final statement of future intent or promise. Unless expressly specified otherwise, some products and innovations set out in this paper are currently under ongoing development and are not currently in deployment. Echelon DAO, the Echelon DAO main team and board members(token holders) does not make any warranties or representations as to the successful development or implementation of such technologies and innovations, or achievement of any other activities noted in the paper, and disclaims any warranties implied by law or otherwise, to the extent permitted by law. No person and/or technology is entitled to rely on the contents of this paper, or any inferences drawn from it, including in relation to any interactions with Echelon DAO or the technologies mentioned in this paper. The Echelon DAO and everyone associated with them disclaims all liability for any loss or damage of whatsoever kind (whether foreseeable or not) which may arise from any person acting on any information and opinions relating to the Echelon DAO, the ECHO Token or any other activity related to the Echelon DAO ecosystem contained in this, and future, paper or any information which is made available in connection with any further enquiries, notwithstanding any negligence, default or lack of care. ECHO Tokens are not intended to constitute securities, a financial investment, interests in a managed investment scheme, or any other type of financial product in any jurisdiction. This paper does not constitute a prospectus, product disclosure statement or offer document of any kind and is not intended to constitute an offer of securities or solicitation of investment in securities or financial products in any jurisdiction. The information in this paper is not financial-and/or financial product advice and does not take into account your objectives, financial situation or particular needs. This paper should not be construed as business, financial, securities, taxation, legal or other advice. You should seek your own advice from an appropriately qualified financial advisor, accountant, solicitor or other professional advisor before deciding whether to purchase ECHO Tokens. The information contained in this publication is derived from data obtained from sources believed by the Echelon DAO main team to be reliable and is given in good faith, but no warranties, guarantees or representations are made by the Echelon DAO main team with regard to the accuracy, completeness or suitability of the information presented. The paper is also inspired by other projects like The DAO and Alchemy DAO, but not associated whatsoever. It should not be relied upon, and shall not confer rights or remedies upon, you or any of your employees, creditors, holders of securities or other equity holders or any other person. The opinions reflected herein may change without notice and the opinions do not necessarily correspond to the opinions of the Echelon DAO main team. The Echelon DAO main team does not have an obligation to amend, modify or update this paper or to otherwise notify a reader or recipient thereof in the event that any matter stated herein, or any opinion, projection, forecast or estimate set forth herein, changes or subsequently becomes inaccurate. The Echelon DAO main team, its board members and representatives do not have any responsibility or liability to any person or recipient (whether by reason of negligence, negligent misstatement or otherwise) arising from any statement, opinion or information, expressed or implied, arising out of, contained 2018 Copyright Rain-Check.IT Pty Ltd 4 2018 Copyright Rain-Check.IT Pty Ltd in or derived from or omission from this paper. Neither The Echelon DAO main team nor its members has independently verified any of the information, including the forecasts, prospects and projections contained in this paper. Each recipient is to rely solely on its own knowledge, investigation, judgment

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