

Election Rules 2024

Introduction

The election of two members of the community to the Concordium governance committee will have two parts to it. The first is the candidate nomination, which will take place in April 2024. The second part is the on-chain voting, which will take place in June 2024. The month of May will be used for the community to get to know the candidates. Our election protocol requires *guardians* to ensure that the election is run in a decentralized and secure manner without Concordium or any other entity being a point of centralization. In essence, the guardians serve as a fully decentralized election commission. These guardians will be randomly selected from volunteers from the community. This article reviews the nomination and election processes in the first and second part, and the role of guardians in the third.

Candidate Nomination (April 2024)

For the 2024 election to the Concordium governance committee, the process for nominating candidates will be informal. Anyone who is involved with the Concordium blockchain is welcome to stand for election. Candidates with relevant skills and experiences, including technical expertise on blockchain and Web3, entrepreneurs building on the Concordium chain and representatives of the community of CCD holders, are particularly suited for the task. A call for candidates which will include details on the tasks of the governance committee, compensation and information about the application process will be published in the following weeks.

To keep the amount of candidate information that a voter needs to process manageable, and to mitigate decision fatigue, the number of candidates for the elections will be limited to 10. In the event where there are more than 10 nominees, the current governance committee will make a selection based on the involvement of the candidates with the chain and their relevant skills and experiences. We will consider a formal nomination process with the community voting on who should be a candidate for future elections.

The tentative dates for candidates to be nominated are from **April 2nd to April 23rd 2024**.

Voting (June 2024)

Weighting Votes

A formal vote will take place on the Concordium blockchain in June. The tentative dates for opening and closing the voting are **June 11th to June 23rd, 2024**. All accounts may vote, and the vote is weighted by the **average amount of CCD on the account between the 1st of March 2024 and the 31st of May 2024** (rounded down to the closest whole CCD). It is thus

recommended that a user with multiple accounts votes from all accounts for their vote to have maximal weight. If the same account votes multiple times, only the last vote will count.

Staked CCD, whether it is by validators or delegators, is still held in the user's wallet, so it counts towards the weight of the vote. But shielded CCD cannot be seen by anyone other than the wallet owner, so it cannot be part of the weight. And CCD locked in smart contracts cannot be used to vote either. **Furthermore, tokens that are in a custody wallet, e.g., on a centralized exchange, will not count as part of the weight of the token owner, but as part of the weight of the custodian. It is thus important for all CCD owners who want to vote (or who don't want custodians to vote in their name), to transfer all CCD to wallets of their own.**

The Concordium Foundation will not vote from any of their accounts in the 2024 election.

Approval Voting

The voting system chosen for this election is called *approval voting*. The voter may choose as many candidates as they like, i.e., they assign either 0 or 1 to every candidate. In standard approval voting, all votes are added up and the candidates with the most votes get the seats. In our weighted case, every candidate that receives a vote receives the corresponding full weight of the account from which the voter was cast—the weights are *not* split amongst the candidates that receive a vote. For example, suppose that there are four candidates, Peppa Pig, Rebecca Rabbit, Suzy Sheep and Zoe Zebra. And suppose that Alice has 4000 CCD and votes for Peppa, Bob has 2000 CCD and votes for Rebecca and Suzy, and Charlie has 3000 CCD and votes for Suzy and Zoe. Then the final tally is 4000 votes for Peppa, 2000 for Rebecca, 5000 for Suzy and 3000 for Zoe.

Since there are two seats being filled in these elections, the two candidates with the most votes are elected. In case of a tie, which is very unlikely, a fair coin is flipped.

DApp and Vote Delegation

A DApp is currently being implemented so that voters can connect to the voting smart contract and cast their vote. The browser wallet, new mobile wallet and CryptoX Concordium wallet all have DApp connectivity, so they can vote this way.

Users of the desktop wallet need to create a new account in one of the wallets mentioned above and delegate their vote from their desktop account(s) to the new account, then vote from the new account. Vote delegation is done by transferring any amount of CCD (1 micro-CCD is enough) to the target account with a memo that says "delegatevote2024". It is possible to check from the DApp that the delegation worked. The window for delegating votes is the same as voting with the DApp.

Users of the legacy mobile wallets can either delegate votes as described above, or they can import their accounts into the cryptoX wallet and vote from there.

Only the original weight of an account can be delegated, not any weight that is received from delegation. For example, suppose that A delegates to B and B delegates to C, then the weight of A is not transferred to C, but stays with B. So in this scenario, a vote from A would have weight 0. A vote from B has the original weight of A. And a vote from C has the original weights of B+C. Like for voting with the DApp, if an account delegates multiple times, it is the last one that counts.

Guardians

The voting protocol that we will use encrypts the votes to provide privacy. Parties which we call *guardians* hold shares of the decryption key. They need to run a joint protocol before the voting opens to generate and share the keys, and run another protocol after voting has closed to decrypt the final tally. Sharing the decryption key amongst multiple parties prevents any single person from violating the privacy of the voters: a majority of the guardians would have to collude to have a chance at reading the individual votes. A detailed article describing the voting protocol, its security guarantees and explaining the underlying cryptography will be published in the following weeks.

We have decided to ask for the assistance of our community in filling this role. Just like volunteers that may help out in real world elections by verifying voter IDs or counting votes, our on-chain voting also requires the help of the community. The guardians will need:

- A laptop or desktop computer to run the guardian app.
- An account on the blockchain to interact with the voting smart contract via the guardian app, i.e., an account that can be used in the new mobile wallet or browser wallet. This account will be made public, as it also serves to authenticate the guardians.
- To be available for a dry-run on testnet in April, for generating keys on mainnet between the 4th of June and 10th of June 2024, and for decrypting the tally between the 24th and 28th of June 2024.

A call for guardians explaining the exact process for volunteering will be published in the following weeks.