How to Stake Your Validator

This guide offers a step-by-step walkthrough on how to stake your Avail validator. It covers essential steps such as bonding your funds, managing session keys, and initiating the validation process.

BEFORE YOU START This chapter continues from the 'Session Keys' page, so be sure to read that one before proceeding with this one.

Step 1: Prepare for Staking

Before you can become an active validator, you need to bond your funds to your node. This involves creating two separate Avail accounts: astash account for holding your funds and acontroller account for managing staking actions.

Create Avail Accounts

1. Navigate to the Goldberg network explorer atgoldberg.avail.tools (opens in a new tab)
2. .
3. Create astash
4. and acontroller
5. account. Thestash
6. account should ideally be a cold wallet, while thecontroller
7. can be a hot wallet.* The controller key is responsible for managing staking activities and executing transactions,
8.
   - including the payment of transaction fees.
9.
   - The stash key primarily safeguards your funds and should ideally be stored in a cold wallet or
10.
    - kept offline. It is not recommended to use the stash key for routine account activities like submitting
11.
    - extrinsics.
12. Ensure both accounts have sufficient funds to cover transaction fees.

FUNDING ACCOUNTS Keep the majority of your funds in thestash account and only a minimal amount in thecontroller account to cover transaction fees. For validators participating in our testnet, contact the Avail team to have funds transferred.

Bond Your Funds

BONDING TIPS Don't bond all your AVL tokens as you'll need some for transaction fees. You can always bond more tokens later. Note: Withdrawing any bonded amount is subject to the duration of the unbonding period. 1. Navigate to theStaking 2. tab in the Explorer. 3. Click onStash 4. to initiate the bonding process. 5. Fill in the bonding preferences.

- Stash Account:
- This is your designated Stash account.
- Controller Account:
- Choose your Controller account, which only requires a minimal amount of AVL to initiate and cease validation.
- Value Bonded:
- Specify the quantity of AVL tokens you wish to bond from your Stash account. You can stake any amount that exceeds the minimum requirement.
- Payment Destination:
- This is the account where your validation rewards will be sent. For more details, visithis link(opens in a new tab)
- .
- After filling in the required fields, clickBond
- . You will be prompted to enter your wallet password. Input your password and then clickSign and Submit
- .

You should now be ready to generate your session keys. Note theSession Key button, in the next step we will generate a key to submit here.

Step 2: Manage Session Keys

After your node is fully synced, you'll need to rotate and submit your session keys.

Rotating Session Keys

Run the following command on your node machine:

Ensure the node is running with the default HTTP RPC port configured.

Using Binaries:

curl

-H

"Content-Type: application/json"

-d

'{"id":1, "jsonrpc":"2.0", "method": "author_rotateKeys", "params":[]}'

http://localhost:9944 The result is the concatenation of the four public keys. Save the hex-encoded result for the next step andrestart your node .

Using Docker:

docker

ps You should an output similar to:

CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES da097bbeba75 availj/avail:v1.8.0.4 "/entrypoint.sh" 3 seconds ago Up 3 seconds 0.0.0.0:9615->9615/tcp, :::9615->9615/tcp, 0.0.0.0:9944->9944/tcp, 0.0.0.0:30333->30333/tcp, :::9944->9944/tcp musing_cartwright We need theCONTAINER ID from the output above:

docker

exec

-i

da097bbeba75

curl

-sH

"Content-Type: application/json"

-d

'{"id":1, "jsonrpc":"2.0", "method": "author_rotateKeys", "params":[]}'

http://localhost:9944

Submit Session Keys

You must inform the network of your Session keys by signing and submitting thesetKeys extrinsic. This action associates your validator with your Controller account.

1. Navigate back to theStaking (opens in a new tab)
2. tab.
3. Click onSet Session Key
4. and enter the hex-encoded result.
5. ClickSet Session Key
6. and enter your password when prompted.

After submitting the extrinsic, you'll observe thatSet Session Key changes toValidate . Make sure your node is fully synchronized before proceeding further.

Step 3: Register as a Validator

1. ClickValidate
2. on theStaking

3. tab.

4. Set your validator commission percentage.

5. Enter your password and clickValidate
6. .

Step 4: Start Validation

Your validator is now prepared to begin the validation process. If you wish to discontinue, you can click the stop icon. Please note that the Avail interface doesn't automatically verify if your node is synchronized; you'll need to confirm this manually. If your node has sufficient stake, the Avail blockchain will likely select it in the next epoch or two.

Verify Validator Status

To verify that your node is ready for possible selection at the end of the next era, follow these steps:

1. Go to theStaking (opens in a new tab)
2. tab and
3. selectWaiting
4. to see if your account appears.
5. If your node has enough stake, it will be elected in the next era or two.A new set of validators is chosen everyera
6. , based on the amount staked.

Monitor Validator in Action

Once your validator node has accrued enough stake, it will be elected for validation. Below is an example image of an elected validator node actively producing blocks.

In addition, please check out the guide on validator monitoring availablehere .

Next Steps

Congratulations on successfully setting up your Avail Validator node!

As you move forward, here are some essential actions to consider:

1. Backup Your Validator
2. : Ensure you have a secure backup of your validator settings and keys. Refer to theBackup Guide
3. for detailed steps.
4. Start Monitoring
5. : If you haven't already, set up monitoring tools to keep track of your validator's performance. Check out theMonitoring Guide
6. for recommendations.
7. Join the Community
8. : Connect with other validators and the Avail team on the officialDiscord Channel (opens in a new tab)
9. . It's a great place to share experiences, ask questions, and get updates.

Session Keys Backup your validator