# Welcome to Vitreus

## WHERE WEB3 HAS BEEN ENERGIZED!

Our fresh Layer 0 environment welcomes you through an iOS and Android compatible application that will be your source of interaction with VTRS, VNRG and vNodes! This instruction set has been crafted to specifically guide you through how to apply to have your vNode be a Validator on the Vitreus Network through vApp.

For further instructions: Mainnet Instructions - Claim, Stake & Validate
If you have any questions: https://discord.gg/vitreus

Please note, for this stage you MUST be connected to your vNode's WiFi Access Point for any of this process to work. If you are having trouble, please validate you're properly connected to your vNode's WiFi and your vNode has been set up properly

1. Ensure you're connected to the vNode's WiFi Access Point
2. Open your vApp
    a. Click on the middle tab at the bottom of the app "vNode"

3. Click Connect vNode
4. Read the Disclosure & Read the Instructions
    a. Scroll down through the disclosure.
    b. Slide through the pages, while reading, to ensure you have all the information you need.
    c. When you're on the last instruction tab, the Continue button will highlight and be interactable

5. Setup your vNode Account
    a. Set a Username and Password

        i. Write this down and keep track of it

    b. Validate your Password
    c. Ensure you have this information saved for future use

6. Securely record your Recovery Phrase
    a. Triple check this is correct, we cannot reset/recover your account

7. Rename your vNode's Access Point
    a. Access Point Name will be discoverable through a network search from your phone
    b. Access Point Password will be the password used to access the vNode's WiFi Access Point

8. Sync with the network
    a. Now that your vNode is connected, it can begin downloading the network state to be on the same page as every other node
    b. This is done automatically by your node.

9. Apply a Stake
    a. Before you can become a validator, you need to apply a stake.
    b. Using the + Stake button.

        i. You will need to apply a stake of at least 1,000,000 VTRS
        ii. Note: Grandfather clause nodes need to only apply 1 VTRS minimum

    c. Sign the Stake transaction.
    d. When successful, refresh the vNode tab to see the next step.

10. Become a Validator
    a. After you have applied a stake, you will be able to see a green checkmark with "Become a Validator". This is a button – click it to begin becoming a validator
    b. Read the instructions carefully. You will need to tap the checkbox near the bottom of the app to be able to continue
    c. Clicking this button will trigger your vNode to shut down. You will need to manually reboot your vNode

        i. This process is setting your validator keys.

11. Reconnect to vNode WiFi & Refresh your vNode tab in vApp
12. After a successful reboot, your vNode tab will look the same as before the reboot. Click on "Become a Validator" again.
13. Toggle "Allow Cooperators"
    a. By default is this on and allows your node to receive stakes from anyone
    b. If you do not wish to allow other people to stake on your node, toggle this off.
    c. Allowing people to stake on your node allows you to collect commission from the rewards they generate.

14. Set your Commission
    a. You can enter a value, 20–99.

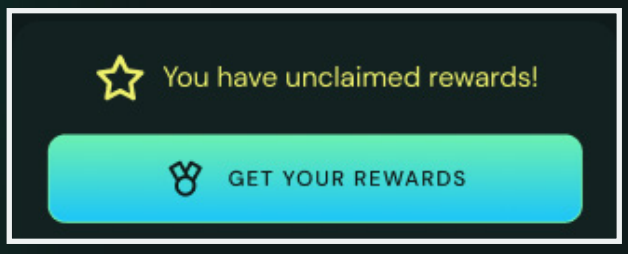
        i. This can have 1 decimal place (IE 20.1, 25.7, 33.8)
        ii. This represents the amount of extra rewards you will claim from anyone who stakes on your node.

            * For example, if a staker on your node would generate 100 rewards, and you set your commission to 50%, you would collect 50 of their 100 and they would get the other 50

    b. Click Next when you're ready

15. Sign the Validator Transaction
    a. This will cost approximately 2 gVolts (or VTRS) to perform

16. Congrats!
    a. Refresh your vNode tab
    b. Your status should change from "Online" to "Validator Request".
    c. The Validator Request has been put onto the network. The network takes time to accept Validators. Please allow for up to 4 hours before this status changes from "Validator Request" to "Validating"

17. Collecting Rewards
    a. Every Era (~4 hours) you will generate rewards from being a validator.
    b. A new button will appear under the 3 central buttons when an Era of Rewards has been stored.
        i. 

    c. When this button is clicked, you will call up to 6 transactions for claiming past Eras of rewards
        i. As a validator, you're able to store up to 84 Eras, or 14 days of rewards.
            * Please note, if you fail to claim any rewards during this 14 period, rewards will be overwritten
            * Example:

              Era 1 - 84 have been stored. You fail to claim
              Era 85 rewards come in. Era 1 rewards are overwritten by Era 85 rewards, effectively considered a loss.

        ii. This loss impacts all stakers on your vNode so be sure to be diligent about your responsibilities as an operator.
        iii. Each transaction is able to claim 1 Era of Rewards from your storage
        iv. Each transaction costs 1 gVolt
        v. Rewards received are in gVolts
        vi. When we consider the cost to claim rewards and the generation rate of gVolts to VTRS staked, we can see that a stake of 19,909.091036891 VTRS nets 1 gVolt per Era. This would be the minimum stake required to operate positively as an Operator, before considering the commission collected from stakers
        vii. When you press this button to collect your rewards, you also distribute rewards to all of your stakers.
            * As an operator, it is your responsibility to continuously and diligently outflow rewards to your stakers.
    d. It would be a good practice to consider maintaining some gVolts as a stockpile to offset your reward claiming costs.
        i. Example:
            * Claiming 12 Eras of Rewards = 12 gVolts
            * Claiming 84 Eras of Rewards = 84 gVolts
        ii. VTRS will be used to supplement your gVolt stockpile in the event you cannot pay the fee with gVolts
            * If the fee is 1 gVolt and you only have 0.5 gVolts, 0.5 VTRS will be used for the transaction.