# Validators

## General considerations

Important Please check out thesecurity considerations before using Nethermind as a validator. For Ethereum validators, we highly recommend checking outStaking with Ethereum andValidator checklist .

## Hardware configurations

The following hardware configurations for Ethereum Mainnet validators have been battle-tested by us and our users. We have observed excellent validator performance and stability with these configurations.

note Before setting up your infrastructure, check outNethermind hardware requirements .

### On-premises

A single validator on Intel NUC 11:

- CPU: Intel Core i7-1165G7
- Memory: Crucial 32GB DDR4-3200 SODIMM
- Storage: Samsung 980 PRO PCIe NVMe SSD 2TB
- Internet speed: 620 Mbps download, 160 Mbps upload

### AWS

Multiple validators on the following EC2 instances:

- m6i.2xlarge
- : 8 vCPU, 32 GiB memory
- m7g.2xlarge
- : 8 vCPU, 32 GiB memory

These configurations have proven to work well for 1000-1500 validators and haven't been tested for more validators. Also, the validator clients have been separated from the consensus and execution clients and running ont4g.small instances.

### Azure

Multiple validators on the following VM instances:

- Standard_D8_v5
- : 8 vCPU, 32 GiB memory
- Standard_D8ps_v5
- : 8 vCPU, 32 GiB memory

These configurations have proven to work well for 1000-1500 validators and haven't been tested for more validators. Also, the validator clients have been separated from the consensus and execution clients and running onStandard_D2pls_v5 instances.

### GCP

Multiple validators on thec2d-highmem-4 instance: 4 vCPU, 32 GB memory

These configurations have proven to work well for 1000-1500 validators and haven't been tested for more validators. Also, the validator clients have been separated from the consensus and execution clients and running one2-small instances.

## Gnosis validators

To set up a Gnosis Chain validator, you can either do thatmanually or use one of the availableone-click tools . Edit this page
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