AWS EC2 archive node setup with OpenEthereum (formerly Parity)

The following provides an example node setup. Performance related parameters will vary per chain.

See theOpenEthereum Documentation for complete instructions for any chain setup Any chain requires an amount of storage capable of storing all archive data. For best performance choose the best available storage device (ie NVMe SSD). 1. Setup an EC2 instance and choose the best available storage (ie NVMe SSD). 2. https://aws.amazon.com/ec2/getting-started/ 3. * During setup you willconfigure Security Groups 4. * . For security purposes, you should limit the inbound traffic to RPC and WebSocket interfaces (default ports are8545 5. * and8546 6. *). Limit connection to these ports to the BlockScout application server's IP address if setting up BlockScout (find in the details section of your created instance) or to your local network. You can also set limit port connections later through the EC2 -> Security Groups panel. 7. Connect to your instance using SSH 8. Specify the private key (.pem 9.) file, the user name for your AMI, and the public DNS name for your instance. For example, if you used Amazon Linux 2 or the Amazon Linux AMI, the user name isec2-user 10. . If ubuntu, the user name isubuntu 11. .Find info about your instance 12. Example: 13. ssh -i /path/my-key-pair.pem ec2-user@ec2-198-51-100-1.compute-1.amazonaws.com 14. Install OpenEthereum fromGitHub releases page 15. for the corresponding platform 16. Create a config file called node.toml (see below for config file specs including 17. xDai archive node specs 18.) and edit accordinglyvim node.toml 19. Connect and Sync an archive node using the config file.parity --config node.toml 20. Find your EC2 url to connect with BlockScout: Go toEC2 Dashboard -> Instances -> 21. corresponding archive node instance 22. and record the ip address. When configuring BlockScout you will use this address along with port 8545 to connect via the EthereumJsonRPCHttpURL parameter. 23. For example:192.0.2.1:8545

Additional Resources

- AWS Marketplace Instructions
- See the xDai Docs for instructions on installing a local instance of xDai using OpenEthereum or Nethermind
- .

Node.toml file general instructions

Below we provide a general example file as well as the settings we use for our xDai node config. In general:

- Parity should run in "fatdb+archive+traces" mode withpruning="archive"
- ,fatdb="on"
- ,tracing="on"
- .
- Both RPC and WebSockets interfaces should be opened and allow calls to"web3","eth","net","parity","pubsub","traces"
- APIs.
- A full list of configuration options is available at:https://wiki.parity.io/Configuring-Parity-Ethereum
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Configuration file example

The following example file outlines general parameters - Performance-related parameters likeprocessing_threads ,server_threads orcache_size_db will vary based on the chain size, available hardware, parity version, general traffic load etc. Often these are adjusted through a trial-and-error process.See below for xDai Archive Node Specs.

General Specs

```

Copy [parity] chain = "CHAIN NAME or PATH TO SPEC.JSON"

[network] nat="ext:" warp = false

[rpc] apis = ["web3","eth","net","parity","traces"] processing_threads = 8 server_threads = 16 interface = "0.0.0.0" cors=["all"]

[websockets] port = 8546 interface = "0.0.0.0" max_connections = 1000 apis = ["web3","eth","net","parity","pubsub","traces"] origins = ["all"] hosts = ["all"]

[ui] disable = true

[snapshots] disable_periodic = true

[footprint] tracing = "on" pruning = "archive" fat_db = "on" cache_size_db = 12000

```

xDai archive node configuration

These are the settings we use to run the xDai archive node.

```

Copy [parity] chain = "xdai"

[network] nat="ext:"

[rpc] apis = ["web3","eth","net", "parity", "traces"] processing_threads = 50 server_threads = 100 interface = "0.0.0.0" cors= ["all"]

[footprint] tracing = "on" pruning = "archive" fat_db = "on"

[websockets] max_connections = 1000 interface = "0.0.0.0" apis = ["web3","eth","net","parity", "pubsub", "traces"] origins = ["all"] hosts = ["all"]

[ui] disable = true

[snapshots] disable_periodic = true

[mining] min_gas_price = 1000000000

```

This instruction was moved from https://forum.poa.network/t/example-archive-node-setup-with-parity-on-an-aws-ec2-instance/3077

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