Züs Miner / Sharder Deployment (Active Set) Procedure

(v1.10) This is a working document and is subject to change. For mainnet, an officially Züs hosted procedure will be used, but process will be similar.

1. Run the following command in your home folder of your Linux server (You should run this command every time you wish to re-run any of the following points since it will refresh the scripts) :-

```
wget -N https://raw.githubusercontent.com/0chain/asdeploy/main/init.sh ; bash init.sh
```

The above will:-

- • Prompt you to enter number of miners and sharders, url, email. These get saved in **~/cfg** folder.
- • Install various dependencies
- • Fetch all required scripts for the rest of this process into the current folder.
- • Fetch the **zdeployment** repo into the **z** folder

2. Then you need to run the keygen script in order generate a fresh set of operational keys for chosen number of miners/sharders You should only enter **1** or **0** for each, more than one per server is for testnets only :-

```
bash keygen.sh
```

This creates a **keygen** folder with requisite Operational Wallets/Keys (in the **config** subfolder). If you run this script again, the existing **keygen** folder will be backed up and a new one created. For mainnet you MUST run a fresh set of keys, since previous ones could be compromised.

3. You will then need to share your keys via a centralized server:-

```
bash sharekeys.sh
```

Don't worry, the keys are encrypted, uploaded and shared via our Proxy Re-Encryption (PRE) Protocol. Only the Operator owner wallet and the target (Saswatas) wallet will be able to read the content.

4.   The Magic Block Processor (Saswata) will need ALL keys to be submitted in this way before they can run the magic block process and share back to the Operational wallets. This may take some time. For major network launches, e.g. pre-mainnet and mainnet this will likely be announced via usual (Telegram / Discord) channels.

5. You then need to run the following command:-

```
bash fetchkeys.sh
```

This will fetch the result for your Operational Wallet(s) from the centralized server. If the magic block has NOT been shared back to the operator wallets yet, this will just keep refreshing until a result is provided. A Success message will be shown when successful.

6. You can then run the appropriate script(s) for your deployment. Magic Block and keys etc. should be Automatically imported if the above was followed correctly.

Sharder	Miner
`bash sharderdeploy.sh`	`bash minerdeploy.sh`

Upon completion, docker containers will be running, you should be familiar with docker commands such as:-

```
docker ps -a
```

In a web browser, should be able to check they are running at the following urls:-

Sharder	Miner
`http://<url>:7171/_diagnostics`	`http://<url>:7071/_diagnostics`

7. Then run the following script to generate the nginx config (for both miners and sharders)

```
bash nginx.sh ; sleep 3
```

The SSL instruction is shown at the end of the script (this only needs to be performed once), e.g.

```
sudo certbot --nginx -d <url> -m <email> --agree-tos -n
```

They should then be accessible via the following URLs:-

Sharder	Miner
`https://<url>/sharder01/_diagnostics`	`https://<url>/miner01/_diagnostics`

Congratulations! You are now part of the Active Set!