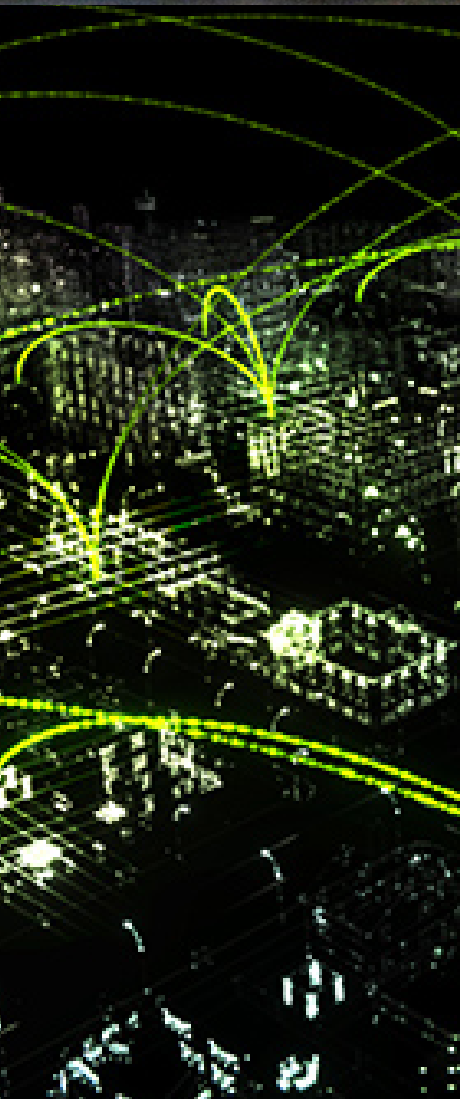




GPU EDGE

BETA STUDY 1



2022

JAN 21



THE GOOD

- Easy / Fast-Responsive (No page Refresh) / Good UI **x9**
- Easy to create a job and choose CPU GPU RAM **x2**
- Economics are good, its good to know how much I can earn providing compute on the edge **x2**
- Docker job deploys and runs way too fast
- The instruction videos on "network" tab. I watched them all and learned a few new things.
- The foundation of the future

THE BAD

- Small screen topbar broken/confusing **x5**
- Allow create job from browser **x4**
- WSL2 curl instructions **x3**
- Don't have estimate cost before job is ran. **x2**
- prefer a text/slides tutorials not mp4
- Network speed in terms of range with MBPS or GBPS rather than 'dsl' or 'fibre'. Not everybody knows what that means.
- No French translation
- Difficult to use
- {error: ok} is false negative it should be {result: ok}

THE UGLY

- Totally don't understand what you guys are doing. **x3**

QUESTION ANSWERS 1

- Http request to domain instead of smart contract? **x3**
- How is this decentralized? **x3**

Dont forget when you send blockchain transactions your not sending it directly to a "smart contract", but to a RPC node that relays it, that RPC node could very well drop your transaction and it might never hit the txpool.

The offchain.zod.tv endpoint does not just process a JSON, it does so when the JSON is accompanied by a signed authentication token to prove your onchain identity.

Think how OpenSEA works, you can buy/sell/trade NFTs on OpenSEA without making a single blockchain transaction but you still need a blockchain identity in the form of signing data to prove your identity.

The benefit, Zod becomes very fast and easy to use as we dont need to deal with chain congestion, slow onchain RPC, the lack of builtin evented contract calls, etc. The drawback, things "feel" a little more centralized, the offchain endpoint can go down, we built offchain using strickly cloudflare webworkers to hopefully prevent this as much as possible but even cloudflare can go down for a certain period of time, this outage will cause all submitted jobs to not find farmers until its resolved.

The eventual solution is to run the zod edge on the zod edge but its simply not ready for this yet, once we grow to 10+ PoPs it can be considered.

QUESTION ANSWERS 2

- Pay attention on security. How to protect your farmer hosts from malicious jobs, spamming attacks... **x2**

Indeed this is a big problem, we tackle this in 3 ways but there is more to do.

First, All jobs run as non-root, if an attacker breaks out of a container they have low privs, they will need to escalate to attack the system. We also will eventually add seccomp ontop so breaking out is harder, we just need someone to maintain it atm.

Second is the spamming attacks, right now we set firewall rules so no traffic can hit localnet, so a malicious container cannot try to attack your internal router or other systems inside your network.

But there is a lot more work to do in this regard to prevent malicious container from attacking the internet. Currently this is a big challenge we do not have full resources to tackle now, but we have brainstormed a few solutions so eventually it will work but not today.

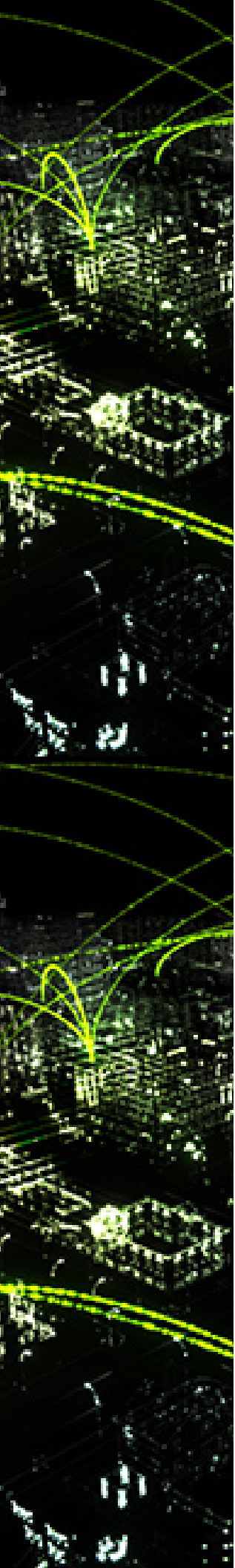
Third (its not updated yet on the site) but Zod EDGE jobs burn 18% of tokens and from the tokens Eteral Dust, a non-transferable fungible token, is created and given to user and farmer.

This dust serves as a reputation system, accounts that have accumulated >\$1000 of dust will probably be honest as they would not want their account to fall in bad standing by attacking the network. Low/no dust accounts would be more risky and established farmers can choose to not take their jobs.

QUESTION ANSWERS 3

- Some environment variable very secret, should consider secure its

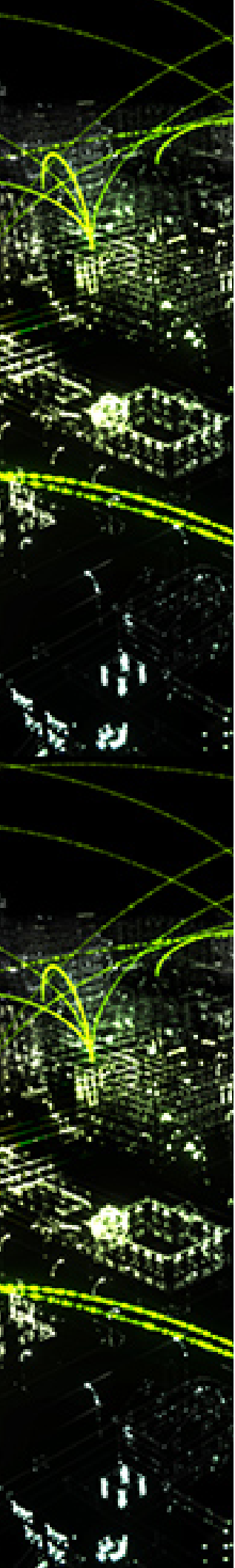
One day secure enclaves and trusted compute will mature but currently its not ready yet. We are not supporting this today, we tried but found its not production ready yet.



QUESTION ANSWERS 4

- integrate into other platforms

We have plans for this, sub token allowance systems, and more. For example this will allow you to make a platform to use zod edge by your users like if you have CI/CD pipeline product and wish to use zod edge to do the builds.



QUESTION ANSWERS 5

- Docker repo should option name of image and version.
- Don't support docker hub private or github private.

You can set this on the image AFAIK as long as its published, example `docker.io/nvidia/cuda:(11.0-base)` (version), is this what you meant?

Private auth is not supported yet but it could be added.

QUESTION ANSWERS 6

- Add dark theme

Eventually I like dark theme as well, but its not high priority, does the chrome dark mode work decent?

