There's a lively discussion in TG since the recent upgrade; nodes were not able to restart, or their motherboards were no longer supported.

Folks want more hands on, rigorous testing to avoid such issues in future. To this end John who runs the Consensus One validator has sourced supported motherboards to run a sort of hardware lab, where he can test firmware upgrades and ensure they're still supported.

John works closely with Supermicro and others to get upgrades promptly, he just needs some early communication from SCRT Labs about which Intel attestations will be enforced in future.

This is a great first step, but for validators and developers to be sure it works for their environment, their contract code still works etc, they should ideally be able to perform the upgrade on testnet themselves.

While this is possible with pulsar-2 testnet currently, it's not a match for mainnet.

So as @toml of SCRT Labs said,

I think what might be a good improvement is to have a testnet with the exact same security configurations as the mainnet. Pulsar and Mainnet have different configurations, pulsar being more permissive and attesting to Intel's dev api.

The way I see it we have 3 options to achieve this;

1. Make pulsar-2 restrictive, big downside is the barrier for new devs to get going on testnet, and the interruption the migration could cause devs. The migration would mostly affect the testnet validators of course, and we'd prepare the hardware in advance, but there's potential for at least some downtime, affecting devs.

2. Launch a temporary testnet for short periods prior to upgrade. Big downside here is that devs and validators cannot test their contracts on an ongoing basis, as they wish to. We would have to coordinate with a growing number of stakeholders, this is tough to do in a short window.

3. Launch a new and persistent testnet alongside pulsar-2. Just as Ethereum had rinkeby and ropsten, where one could test PoW on Ropsten. Big downside here is the additional cost.

As I mentioned on the governance call, I'll get this discussion going here to hopefully find a solution that best meets the community's needs.

Please chime in with any other pros and cons or alternate options we should consider.