#11 No Finality at Spadina Genesis

(Incident #11)

Date: 2020/09/29

Authors: Coreteam

Status: Root cause identified. Issue mitigated.

Network: Spadina

Summary: The new spadina testnet suffered from a lack of finality at launch, with very few Prysm nodes participating, leading to community confusion and a bad look for this "genesis rehearsal". There was no reason why this rehearsal could have failed, and many problems originated from operational faults.

Impact: No finality in the testnet, low participation, confusion, users sending invalid deposits and overall loss of confidence in becoming an eth2 validator

Root Causes: Prysm was not updated to properly support Spadina. Namely, we did not have a bootnode for the testnet in the alpha.26 release (which was the latest Prysm release at the time of Spadina genesis). Also, our validator commands did not have the --spadina flag, leading to invalid deposits for anyone who created a wallet with Prysm and tried to deposit using the deposit data from their created accounts. Additionally, our documentation portal had 0 mention of Spadina. We lagged behind in terms of taking Spadina seriously, having a detailed checklist, and overall having a release ready before the genesis event.

Resolution: Releasing alpha.27 and updating our docs portal is enough of a fix for the problem

Detection: Mentions over twitter, the eth2 discord, the Prysmatic Labs discord, Telegram messages from EF researchers, spadina.beaconcha.in reporting low values for chain participation

Action Items: Release alpha.27, update users via Discord, make a Twitter statement

Action Item	Type	Owner	Relevant Link
Update Docs With Spadina Testnet Info	Docs	Raul	https://docs.prylabs.network/docs/testnet/spadina
Update users with a temporary announcement to add the bootnode ENR via a flag in Alpha.26	Announcement	Nishant	https://discordapp.com/channels/476244492043812875/580039899097595943/760508976961552444
Initialize release process for alpha.27	Release	Preston	
Twitter response	Announcement		
Update eth2 launchpad docs link to point to Spadina	Announcement		

Lessons Learned

What went wrong

- --spadina was not added to the validator commands in alpha.26, causing all deposits initialized from Prysm validators to become invalid
- Documentation portal was not updated, no mention of spadina anywhere, users mistakenly did the Medalla onboarding and deposited to Spadina via the launchpad
- Bootnodes were not included in the --spadina flag in the beacon chain binaries, leading to users not doing anything with their nodes and therefore not validating properly

Where we got lucky

- The issue with finality was not a critical bug nor a consensus error, but rather something due to configuration parameters which can be fixed with a release

- Users were able to join Spadina by adding right flags to alpha.26 with help from our team members

Timeline (all times UTC):

2020/08/29

- **13:35:** Terence updates team on ongoing issues with Spadina, including the lack of genesis, we begin an investigation and potential resolution
- **14:00:** Nishant identifies we had no bootnodes set in alpha.26 for Spadina, making the issue even greater than we thought
- **14:27:** Raul suggests making an announcement to help users running Alpha.26 to join Spadina
- **14:31:** Nishant posts an announcement to our users to hardcode a bootnode into alpha.26 using a flag, which will help them get over the hurdle while they wait for alpha.27 to release https://discordapp.com/channels/476244492043812875/580039899097595943/7605089 76961552444
- **14:58:** Documentation updates to Spadina are merged, suggesting users that they should be on the right testnet before submitting a deposit
- **15:00:** Preston is online and is informed of the situation, begins building release candidate for alpha.27 containing the required fixed