Requesting data commitment ranges

By default, the Blobstream X deployments on Ethereum will be updating every 4 hours, and on Arbitrum One and Base, updating every 1 hour. If you wish for the Blobstream X contract to be updated at a different cadence, then you have several different options for how to update the smart contract.

To request proofs to be submitted to the Blobstream X contract at a different cadence, you can do one of the following:

Recommended setup

Run the Blobstream X operator with hosted proving on the Succinct platform, by running an operator script that pings the platform with proof requests at a specified cadence.

Follow these instructions to run the operator script.

Here are example values for the env file:

- 1. TENDERMINT RPC URL
- 2. fromthe public Celestia list
- 3.
- 4. SUCCINCT RPC URL
- 5. =https://alpha.succinct.xyz/api
- 6. Request for SUCCINCT API KEY
- 7. from the Succinct team
- 8. .
- 9. CHAIN ID
- 10. is the chain ID of the deployed Blobstream X contract.
- 11. CONTRACT ADDRESS
- 12. : Blobstream X proxy contract address.
- 13. NEXT_HEADER_FUNCTION_ID
- 14. &HEADER_RANGE_FUNCTION_ID
- 15. : Get thefunctionId
- 16. 's from the Blobstream X contract by using thenextHeaderFunctionId
- 17. andheaderRangeFunctionId
- 18. respectively, which are public storage variables.

Local proving

To run the Blobstream X operator with local proving, follow this guide.

TIP

Note: Requires a large cloud machine to run in a reasonable amount of time. EC2 r6a.16xlarge takes ~30 minutes to generate a header range proof.

Request proof onchain

Directly request a proof via the Blobstream X contract interface. Unlike the Blobstream X operator which handles requests off-chain, requesting on-chain requires gas, but the proof will be generated and relayed by the Succinct platform.

- 1. CallrequestHeaderRange(uint64 _targetBlock)
- 2. with the end of the range you want a commitment for.
- 3. ADataCommitmentStored(uint256, uint64, uint64, bytes32)
- 4. will be emitted for the requested range when it is stored in the contract. Listen to this event to know that the proof has been generated successfully. [][Edit this page on GitHub] Last updated: Previous page Example implementation of Blobstream proofs by CryptoKass Next page New Blobstream X deployments []