2019 Q1 Hyperledger Burrow

Project

- Hyperledger Burrow

Project Health

Project health is largely the same as in previous update. We have added some unique features around dump and restore (our chain reset mechanism) and we have a number of casual contributors. We still lack maintainer diversity outside of Monax. There is a steady flow of interest and we are pushing plenty of code relating to our continued heavy use of Burrow.

Issues

The biggest areas of help would be with tooling and documentation.

Releases

- v0.23.3: Emergency bug fix
- v0.23.2: Fixed issue with checkpointing whereby RWTree would load its readTree from one version lower than it should.

Overall Activity in the Past Quarter

Vent has been merged into burrow. Vent dynamically creates SQL database tables from EVM events according to some specification files maintaining its offset in the chain as it goes. In addition, we can dump the chain state using a new dump tool. This state can then be provided as an initial state for a new chain. This allows us to make backwards incompatibility changes. Several backwards incompatible changes will be needed for supporting new features like the proposal mechanism. The proposal mechanism has received further fixes to make it production ready.

Current Plans

Create Q1 2019 Burrow Roadmap.

Work item	Effort (1, 2, 3, 5, 8, 13)	Priority
NameReg extension to support authenticated namespaces (including design)	13	Medium
Burrow-side ABI registry mechanism (probably based on above)	8	Low
Prototype 'new train' WASM execution	13	Low
Implement token economics primitives	13	Medium

We have an active side project looking at using modern compiler tooling to compile Solidity to WASM and are interested in being part of any future movement to share code/structures through WASM execution and interfaces. To that end we are planning to look into the possibility of mounting Go wagon as a WASM interpreter next to our EVM.

We have also been building much business-process-on-a-blockchain functionality with the combination of Burrow and Blackstone our BPM engine implemented in Solidity and Node.JS. We are looking at improving Burrow's native abilities as a process-focussed blockchain. We'd like to explore the possibility of Hyperledger being host to the Blackstone project in some form - it should have relevance to fabric-evm and sawtooth-seth.

Maintainer Diversity

We have added one maintainer from Monax and have a strong candidate outside Monax in Pierrick Hymbert who has become a contributor and has expressed interest in maintainership.

Current maintainers are:

- Greg Hill (Monax)
- Silas Davis (Monax)
- Sean Young (Monax)
- Casey Kuhlman (Monax)
- Tyler Jackson (Monax)

Contributor Diversity

We have received bug reports and pull requests from the Fabric team. There have been several

Reviewed by

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- [x] Baohua Yang
- [x] Binh Nguyen
- [x] Christopher Ferris
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