Hyperledger Explorer Project Proposal

Table of Contents

Goal

Develop a shared/common blockchain explorer for the Hyperledger Project

Sponsors

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Proposal

Create a ledger explorer project using as basis the projects in the IBM, Intel and DTCC contributions.
Proposed Status of the Project: Incubation

Abstract

Create a user friendly web application for Hyperledger to view/query blocks, transactions and associated data, network information (name, status, list of nodes), chain codes/transaction families (view/invoke/deploy/query) and any other relevant information stored in the ledger. This web application is primarily aimed at both Hyperledger developers as well as non-technical users who wish to see Hyperledger in action.

Context

On July 14, the TSC reviewed a proposal to incubate a blockchain explorer node application that had been developed by an intern at DTCC. During the discussion, it was revealed that IBM had an explorer as part of the IBM Blockchain service in Bluemix that has been teased apart to be a standalone node app that they had intention of contributing. Further, Intel shared that they had a similar capability for Sawtooth Lake that they had also been considering as a contribution. The TSC discussed the value of having a common/shared blockchain explorer that could work with the Fabric and Sawtooth Lake blockchains, and possibly others over time. There seemed to be broad consensus that a common/shared blockchain explorer would be very valuable. It was agreed that at the very least, aspects of a common UI could be shared with a pluggable adaptor

to interact with the various implementations' exposed APIs.

Motivation

It can be difficult for a developer new to either Sawtooth Lake or Fabric to examine the state or see the blockchain in action. Most other cryptocurrencies and blockchain implementations have web based explorer to view the information stored on the ledger. It is essential that Hyperledger also have an explorer with so that end users, new or experienced developers can easily interact with the ledger. It will also help to promote a public display of unity amongst the Hyperledger members. Further, by creating a project shared by all of the other top-level Hyperledger projects serves as a means of improving and increasing collaboration amongst the various members.

Proposal

We propose the following high-level next steps: 1. Add each of the three contributed "explorers" to a common repository named 'blockchain-explorer'. 2. We will draft a clear README.md that describes what this is about - that it is an incubating project that seeks to consolidate the best of the various contributions into a single, shared UX/UI to visualize the state of a blockchain. 3. Begin work to initially evaluate each implementation and create a dashboard mockup wireframe taking the best ideas from each. Develop MVP criteria for a common blockchain-explorer for an initial release. 4. Initiate development on a single node/angular app with pluggable API support for Fabric and Sawtooth Lake.

Resources

DTCC, IBM, and Intel are committing full-time engineering resources to ensure the success of this project. Many other members have already expressed interest in contributing to unit, integration, performance and scale testing as well as to the implementation itself.
The following individuals would be the initial set of maintainers for the project: Satheesh Kathamuthu, Mahesh Gutala, David Huffman, and Peter Schwarz

How to

Establish a single repository under the Hyperledger's github.org with the merged code bases. Clearly label the README.md as an Incubating project of the Hyperledger Project. Published by Google Drive–Report Abuse–Updated automatically every 5 minutes