Proposal Template for a Hyperledger Improvement Project (HIP) HIP 0.3

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A HIP is any initiative that furthers Hyperledger, including new features, anything that requires resources and commitment from the community.

The project proposal template ushers originators, designers, implementers, testers of a project through community and tsc approval. The proposal should evolve organically as the HIP moves through the stages of conception, design, approval, implementation and deployment. The project and hence the proposal may also need several iterations. In its terminal forms it can also serve as a short manual to the features of the project for users.

This proposal template is descriptive and not normative, a guide rather than the law. Prior templates like the internet rfc process, Bitcoin Improvement Proposal, Python Improvement Proposal etc. were used as guidelines to develop this template.

The seed of a new project has to be vetted in a public forum like hyperledger-technical before creating a project proposal. It is best if the project has technical champions who believe in the project and are the maintainers of the project. The technical champions can change in the middle of the project.

Please note that readability is very important. The language of the proposal should be English if possible as that is the lingua franca of the community. The Chicago Manual Of Style should be followed for explanation of abbreviations, references etc. This is extremely important as a clear statement of the problem and its technical details are helpful to coalesce the community around a solution and prompt volunteers. The outline of a project is given below with comments on the sections.

- **HIP identifier** a short description plus a serial number with a version (for example this document is Template for a Hyperledger Improvement Project HIP 0.2)
- **Sponsor(s)** name and contact details including email address

- **Abstract** (less than 50 word) description of the project.

- **Context** if any, what is this project derived from? What if any is it related to? Subprojects if known etc.

- **Motivation** for this project, a longer justification of the project may be a couple of hundred words. Why is this project better at solving a problem compared to parallel proposals or implemented projects?

- **Status** of the project: See lifecycle

- **Solution** to the problem addressed in the motivation section. Try to make this as detailed as possible. The topics given below are just suggestions, address only if they are relevant to your problem:

  - Transactions- including types, confidentiality, signing, traceability, identity of participants, contracts (scripts)
  - Effects on User facing Clients that help with transaction formation (similar to Wallets in BTC)
  - Effects on the network, throughput, visibility to other participants, change in protocol if any, criteria for network participation
  - Block formation and ledger formation: Consensus algorithm, size overhead, effects on the throughput and rate
  - Backward compatibility (hard fork or updates by all network participants needed?)
  - Rough design and scenarios on the probable effects, if any
  - The use of diagrams is encouraged to elucidate concepts
  - Address any possible objections and also support that came up during seed proposal from technical community on the lists.
  - Traceability, testing criteria to gauge effects on installed base.
  - License of codebase (including dependencies)
  - Any trademarks used in the project name or codebase?

- **Effort and resources** committed (coders and any other resources that are needed) and timeline.

- **How to**: How to host and test the project. How to deploy and use. How does one know that it works.

- **References**. See citation guide.

- **Closure** how do we know that the project succeeded. This has to be measurable if possible. Make references to successor projects if any.