

# Interoperability and Scalability Working Group

## 1. Motivation

LACChain is agnostic of technology, so we want to be able to integrate all those solutions that are aligned with our principles.

## 2. Main Goals

- Launch new test-nets
- Explore the development and adoption of interoperability bridges
- Explore new blockchain solutions

## 3. Participants

- Tech Lead: Diego López León
- Coordinator: Antonio Leal Batista
- Supervisor: Marcos Allende López
- Partners:
  - LatamLink

## 4. Detailed description

### 4.1. Launching new test-nets

The LACChain ecosystem is open to support different blockchain technologies. These technologies should add value to the whole network, e.g. higher transaction throughput, convenient tooling, new processing capabilities, improved security techniques, etc.

Any new test-net must comply with a set of technical requirements supported by regulatory agreements between the Alliance and its users. The truth of the network should be assured by the consensus of a set of well-known participants. Also, it must provide a mechanism for write access permissioning and allow private communication between peers.

Technical milestones:

- Define LACChain protocol across different technologies.
  - This document should describe at high level the Alliance expectations for deploying a new network.
- Define an on-boarding process.
  - Every new member should follow the same process of permissioning regardless which network it'll support.

- Update documentation about the new network.
  - It's expected to have similar documentation along every network.
- Update reporting and diagnostic tools.
  - A basic set of live information about each network will be maintained as part of the LACChain infrastructure.

#### 4.2. Interoperability bridges

The LACChain ecosystem is agnostic of the underlying blockchain technology but collaboration between the different networks is highly desirable.

We expect a collaborative environment between different technologies will emerge under the LACChain ecosystem. Thus, one of the services provided by the Alliance is to provide bridges between the different networks.

All networks must be able to interoperate with their native assets, to execute computations on other networks, exchange tokenized money, recognize identities and have equivalent and transparent connections management. More details about these are part of the LACChain Protocol Specification.

Technical milestones:

- Deploy bridges between networks.
  - Maintain infrastructure to keep bridges up to date.
- Evaluate supporting a Polkadot private network.
  - Connect existing networks as parachains.
- Analyze to provide an Oracle like infrastructure certified by the LACChain Alliance.

#### 4.3. New technologies

The LACChain ecosystem is a safe space for innovation and, as such, it should become attractive to technologies willing to expand its userbase through the safety provided by the Alliance.

The first network launched is the Ethereum IBFT 2.0 network running on top of Hyperledger Besu nodes. Our next step is to deploy a new network on top of the EOS.io technology following some of the patterns already established and using this second experience to enforce abstraction in our own ecosystem definitions.

Technical milestones:

- Launch EOS.io test-net.
  - Deploy nodes in LACChain infrastructure.
  - Host reporting tools.
  - Integrate documentation into LACChain knowledge.

Community milestones:

- Present LACChain to different blockchain communities.
- Propose meetings with developers to discuss different ways to collaborate.