



02 Support for Blockchain-Based DIDs in Inji Certify

Expand the discoverability of verifiable credentials to address challenges of trust and security.

Complexity Level: High

Overview: There is a growing preference worldwide for blockchain-based Decentralised Identifiers (DIDs), that provide more security and reliability than verifiable credentials with web-based DIDs. Inji Certify currently uses a web-based Decentralised Identifier (DID) method for public key discovery.

To meet global requirements for trustworthy technology, participants must extend Inji Certify's functionality to include blockchain-based DID methods, compatible with well-known blockchains. The system should provide the necessary APIs for creating these DIDs using keys stored in the vault, with public keys discoverable through universal resolvers.

Recommended Tech Stack: Since this is an enhancement to the existing module, same tech stack as of the modules to be maintained.

1. [Inji-web](#)
2. [Inji-certify](#)
3. [Inji-verify](#)

Exact Task:

Mandatory tasks:

1. Generating VC: Enhancement of the Inji Certify module to include the capability of generating VC using the blockchain-based DID method. All the new APIs required to complete the end-to-end issuance with blockchain-based DID should be designed and developed.
2. VC Verification: Enable the Inji verify module to include verification of VC where the issuer ID is based on a blockchain-based DID method.
3. VC generation from mock identity plugin: Inji Certify - VC generation from the mock identity plugin can be used for integration.
4. DID-based Resolver: Inji verify - Enable Inji Verify resolver to modify the configuration to allow the discovery of the public key for verifiable credentials (VCs) and to support the new DID method for blockchain





Deliverables:

1. Source code of the solution on GitHub/GitLab.
2. A demonstration video showcasing the solution in action.
3. PPT with the approach, results, and potential impact.



4. Documentation:
 - Detailed workflow documentation on the design and implementation approach of the tool such as Architectural Design, Data Flow Structure of the tool, Integration and installation guidance (if any)
 - Design document explaining the integration mechanism followed with the blockchain technology
 - OpenAPI 3.x API document with all the new API introduced to facilitate this new enhancement
5. Test case/ scenarios and test data

Resources:

1. Inji documentation link:  [Inji | Inji](#)
2. Inji stack docker compose with the default insurance use case:  [inji-certify/docker-compose at master · mosip/inji-certify](#)
3. Inji Certify:  [Overview | Inji](#)
4. MOSIP Sandbox environment: [MOSIP collab](#)
5. UIN request form: [Link](#)
6. Collab user Guide link:  [Collab Environment Setup Guides | MOSIP Docs 1.2.0](#)

