

## Repository Blockchain for Collaborative Blockchain Ecosystem

**Authors :** Razwan Ahmed Tanvir, Greg Speegle

**Abstract :** Collaborative blockchain ecosystems allow diverse groups to cooperate on tasks while providing properties such as decentralization and transaction security. We provide a model that uses a repository blockchain to manage hard forks within a collaborative system such that a single process (assuming that it has knowledge of the requirements of each fork) can access all of the blocks within the system. The repository blockchain replaces the need for Inter Blockchain Communication (IBC) within the ecosystem by navigating the networks. The resulting construction resembles a tree instead of a chain. A proof-of-concept implementation performs a depth-first search on the new structure.

**Keywords :** hard fork, shared governance, Inter Blockchain Communication, blockchain ecosystem, regular research paper

**Conference Title :** ICCSCIT 2025 : International Conference on Computer Science, Cybersecurity and Information Technology

**Conference Location :** New York, United States

**Conference Dates :** January 30-31, 2025