

Privacy-Preserving Blockchain Solutions

For Tokenization of Bill of Lading as ERC-721 compliant token

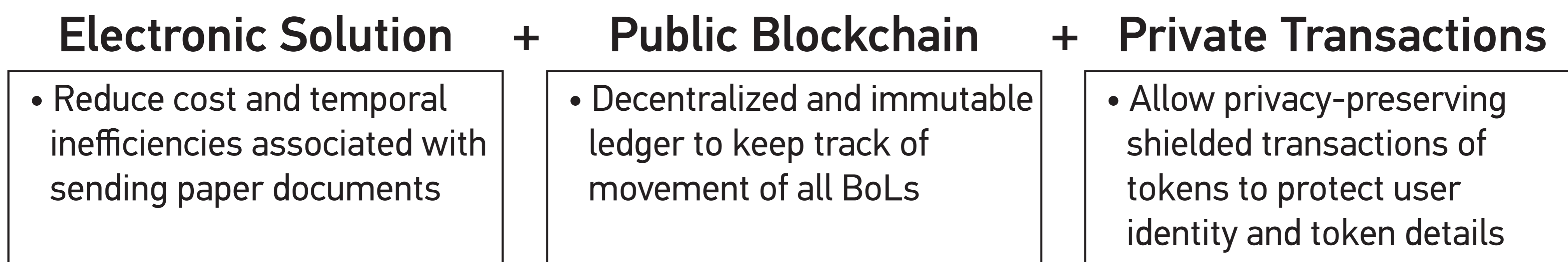
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Current Problems with Paper BoLs



Solution Overview



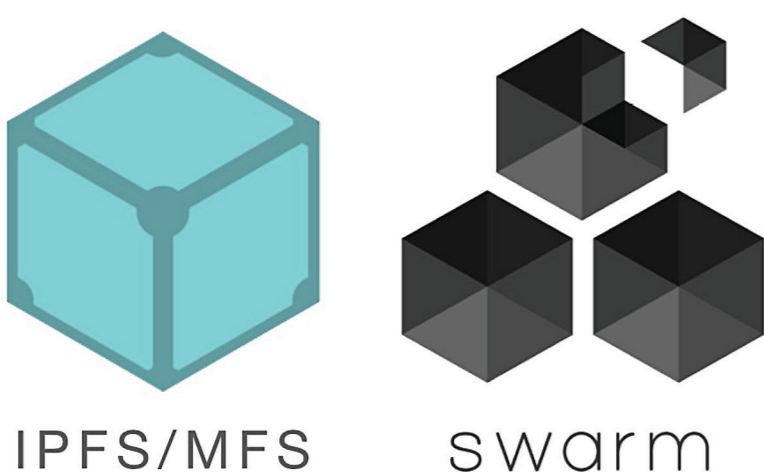
BoLChain is a web platform that provides a streamlined and intuitive application flow beginning from uploading and tokenizing a BoL document to transferring it on an Ethereum blockchain in a privacy-preserving manner.

BoLChain Workflow




1 

Docparser is an external data capture solution which parses electronic documents into key-value JSON format based on user-customizable parsing rules.

2 

The JSON is stored in distributed storage services with content-based addressing. Stored information can be located and retrieved by a URI generated using the hash of its content.

3 

Nightfall creates a non-fungible token from the URI and the BoL's details. Tokens can be further minted into a commitment, which leverages zero-knowledge proofs (zk-SNARKs) and shield contracts to ensure future transactions are privacy-preserving.

