We've just released an overview of how Enigma implements the trusted compute framework developed by the TCF working group of the EEA. Importantly, Enigma demonstrates one way in which these TCF specifications can be applied via Enigma to a public network (Ethereum).

The post maps out how Enigma components implement various aspects of the TCF, and draws attention to several notable features for which Enigma serves as an implementation example:

- Encrypted State:

Enigma secret contracts maintain encrypted state, enabling users to modify and update the state of secret contracts over time.

- Gas / fee market for tasks:

As Enigma is a public network, our nodes are incentivized to perform computations via a fee model.

- "Secret Contracts":

Enigma "secret contracts" are public code, such that users of contracts can see what computations will be performed on the encrypted tasks they send to the network.

- Ethereum Mainnet integrations:

Enigma uses the Ethereum network for consensus, and submits a hash of task data to the Enigma Contract on Ethereum whenever a task is kicked off. Enigma is also capable of making callbacks on Ethereum based on the outcome of a secret computation.

- Public worker network:

Workers in the Enigma Network are decentralized and not controlled by Enigma, and they can do work for any user who submits a task.

We're looking forward to continuing to share our research with the TCF working group, particularly around encrypted state. .

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Enigma Discovery: Bridging Private Enterprises and Public Ethereum

Announcing Enigma's implementation of EEA's Trusted Compute Specification with encrypted state and Ethereum interoperability

Reading time: 9 min read