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# OpenST Mosaic

## A FRAMEWORK TO SCALE ETHEREUM

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**Benjamin Bollen, Martin Schenck**  
for OpenST Foundation

### Abstract

We present improvements to the OpenST protocol. OpenST is a framework powered by Ethereum to build token economies. We lay out in detail two contributions, OpenST Mosaic and OpenST Gateway, which work together to scale Ethereum. OpenST Mosaic is a layer-2

## 1. Introduction

## 2. Related Work

Verifiers' Dilemma [1]

Interblockchain Communication [2]

Casper FFG [3]

## 3. Our Contribution

## 4. OpenST Mosaic

### 4.1. OpenST Mosaic

### 4.2. OpenST Gateway

OpenST Gateway enables chain-to-chain transfer of state objects.

## 5. Outlook

### 5.1. Token Economies

### 5.2. Neo and Cardano

## 6. Conclusion

## References

- [1] Luu, L., Teutsch, J., Kulkarni, R. & Saxena, P. Demystifying incentives in the consensus computer. *IACR Cryptology ePrint Archive* **2015**, 702 (2015).

- [2] Kwon, J. & Buchman, E. Cosmos: A network of distributed ledgers (2017). URL <https://cosmos.network/docs/resources/whitepaper.html>.
- [3] Buterin, V. & Griffith, V. Casper the friendly finality gadget (2017). URL [https://github.com/ethereum/research/blob/master/papers/casper-basics/casper\\_basics.pdf](https://github.com/ethereum/research/blob/master/papers/casper-basics/casper_basics.pdf).