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# Envelope specification

fact sheet



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## Area of interest

On-chain data, Data interoperability

## Categories & related standards

**Categories:** Data interoperability, On-chain data, Token, Token interoperability

**Related standard:** [Original OP\\_RETURN](#), [BitCom](#)

## Executive summary

Bitcoin supports cryptographically time-stamping data to provide many benefits for many different uses. To provide efficient usage we need to be able to clearly identify data format and encoding with low overhead. The Envelope specification provides that ability in a way that is simple and Bitcoin friendly.

## Abstract

Data integrity, security, and accountability are important. Payments require data to be complete and useful such as what exactly is being paid for and any terms. Separating the payment from the data adds complexity, increases overhead, and reduces the security, integrity, and accountability of the payment. Other types of important data are also useful on chain, like negotiations.

Data is only useful if it is understandable. The Envelope protocol provides a simple, efficient, and standardized method of identifying the format and encoding of data so that it is more understandable by more systems and applications. Actual encoding and formatting protocols are needed with this, but without a standardized method of identifying and combining those protocols the implementations required to support them will need to be more complex and this will cause them to be less supported and interoperable between systems and applications.

## Benefits

- Low data size overhead
- Standard method of specifying protocols for data
- Supports encoding protocols combined with format protocols without requiring specific implementations for each combination.

## Monitoring and review

The TSC keeps track of the standard implementation. To record yours, visit the [standard page](#) in the TSC library. To notify the TSC that this standard is due for review or has become obsolete, email [tsc@bitcoinassociation.net](mailto:tsc@bitcoinassociation.net) quoting the standard UID with a short supporting statement.