

BIP: 72
Layer: Applications
Title: bitcoin: uri extensions for Payment Protocol
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Abstract

This BIP describes an extension to the bitcoin: URI scheme (BIP 21) to support the payment protocol (BIP 70).

Motivation

Allow users to click on a link in a web page or email to initiate the payment protocol, while being backwards-compatible with existing bitcoin wallets.

Specification

The bitcoin: URI scheme is extended with an additional, optional "r" parameter, whose value is a URL from which a PaymentRequest message should be fetched (characters not allowed within the scope of a query parameter must be percent-encoded as described in RFC 3986 and bip-0021).

If the "r" parameter is provided and backwards compatibility is not required, then the bitcoin address portion of the URI may be omitted (the URI will be of the form: bitcoin:?r=...).

When Bitcoin wallet software that supports this BIP receives a bitcoin: URI with a request parameter, it should ignore the bitcoin address/amount/label/message in the URI and instead fetch a PaymentRequest message and then follow the payment protocol, as described in BIP 70.

Bitcoin wallets must support fetching PaymentRequests via http and https protocols; they may support other protocols. Wallets must include an "Accept" HTTP header in HTTP(s) requests (as defined in RFC 2616):

Accept: application/bitcoin-paymentrequest

If a PaymentRequest cannot be obtained (perhaps the server is unavailable), then the customer should be informed that the merchant's payment processing system is unavailable. In the case of an HTTP request, status codes which are neither success nor error (such as redirect) should be handled as outlined in RFC 2616.

Compatibility

Wallet software that does not support this BIP will simply ignore the `r` parameter and will initiate a payment to bitcoin address.

Examples

A backwards-compatible request:

```
bitcoin:mq7se9wy2egettFxBmn99cK8v5AFq55Lx?amount=0.11&r=https://merchant.com/pay.php?h%3D2a8628fc2fbe
```

Non-backwards-compatible equivalent:

```
bitcoin:?r=https://merchant.com/pay.php?h%3D2a8628fc2fbe
```

References

RFC 2616 : Hypertext Transfer Protocol -- HTTP/1.1