



Interledger

Web Payments - Payment Method

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Interledger Protocol

A protocol for **internetworking** different payment networks

(See <http://interledger.org> or come to our meetup on Thursday night!)

For Payment Request, focus is on standards, not internetworking:

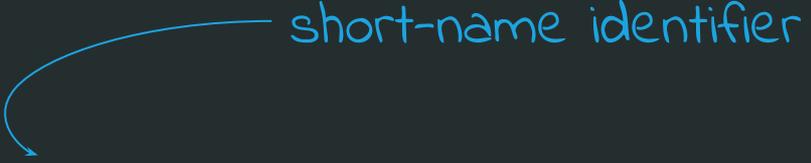
- **Addressing**
- **Reconciliation**
- **Proof of payment**



Interledger Payment Method

```
{  
  supportedMethods: ["interledger"],  
  data: {}  
}
```

short-name identifier



Interledger Payment Method Data

```
{  
  address: "g.crypto.btc.1BvBMSEY...",  
  amount: "10",  
  condition: "aGh2n8gV29ybGQhCg...",  
  data: "SGVsbG8gV29ybGQhCg..."  
}
```

ILP address

normalized amount

execution condition

payment data

The diagram illustrates the structure of Interledger Payment Method Data as a JSON object. The object contains four fields: 'address', 'amount', 'condition', and 'data'. Handwritten blue annotations with arrows point to each field: 'ILP address' points to the 'address' field, 'normalized amount' points to the 'amount' field, 'execution condition' points to the 'condition' field, and 'payment data' points to the 'data' field. The 'condition' and 'data' fields contain Base64-encoded strings.

Interledger Payment Method Data - Address

```
{ address: "g.uk.worldpay...", ... },  
{ address: "g.us.stripe...", ... },  
{ address: "g.us.bofa...", ... },  
{ address: "g.cn.alipay...", ... },  
{ address: "g.crypto.xrp...", ... },
```



Interledger Payment Method Data - Address

predefined namespaces (g, test, dev, private)



g.uk.worldpay.merchant.1234567.tx.87563485

hierarchical structure
assists routing



transaction specific suffix can aid reconciliation



Interledger Payment Method Data - Amount

```
{  
  address: "g.crypto.btc.1BvBMSEY...",  
  amount: "190345021",  
}  
  
{  
  address: "g.us.bofa.usd...",  
  amount: "1200",  
}
```

scale based on address

always expressed as 64-bit unsigned integer

\$12.00 (scale = 2)



Interledger Payment Method Data - Condition + Data

```
{  
  ...  
  condition: "aGh2n8gV29ybGQhCg...",  
  data: "SGVsbG8gV29ybGQhCg..."  
}
```

SHA-256 hash of the
fulfillment
(base64url encoded)



cryptographically bound to payment
data (provides integrity protection)



Binding the payment data to the outcome

Payee has a secret: 

SHA-256 ( + ) = Fulfillment

SHA-256 (Fulfillment) = Condition



Interledger Payment Method Data - Response

Proof of delivery of
the payment

```
{  
  ...  
  fulfillment: "qferIhhTYDF23_V29ybGQhCg..."  
  data: "SGVsbG8gV29ybGQhCg..."  
}
```



interledger.org/sanfrancisco

