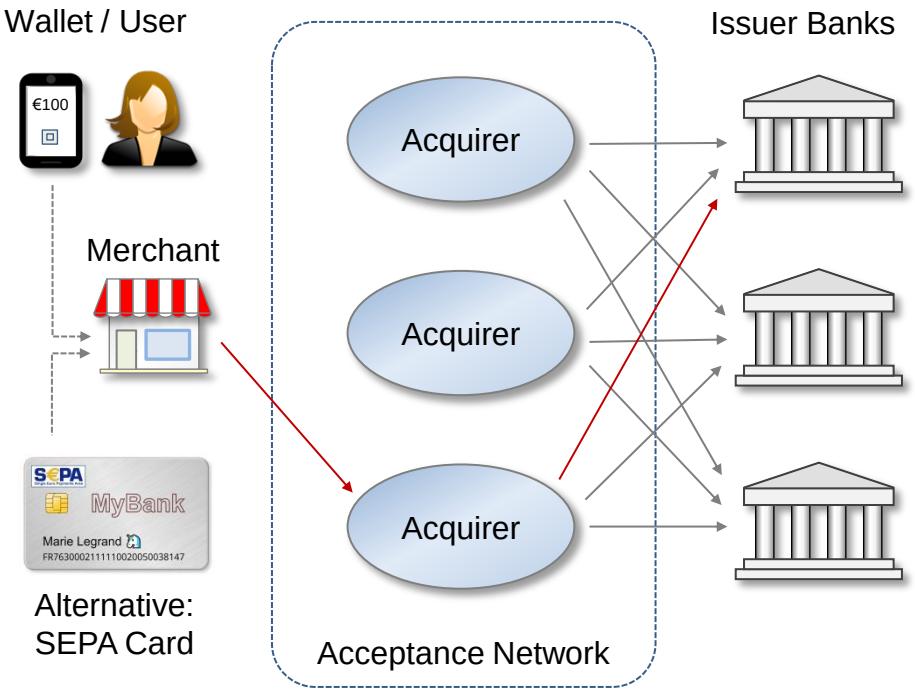
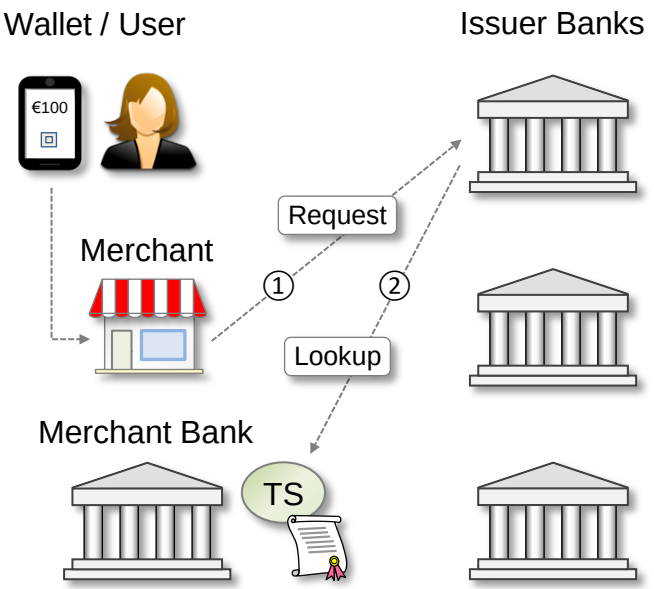
Presumed EPI "Front-end" Architecture





In the traditional architecture for card-based authorizations, Merchants are connected to Acquirers who handle the communication with the Issuer Banks (or card networks). An Acquirer is usually the entity that has the business agreement with a Merchant as well.

The traditional architecture depends on a *huge number of statically configured security parameters and paths*, illustrated by the arrows in the diagram.

This model also depends on *databases* holding card-number to Issuer Bank "routing" tables.

Acquirer services are covered by *additional fees* on top of the fees required by the Banks running the payment scheme like SEPA Inst.

In the Saturn architecture a Merchant has a business agreement with their account-holding Bank which also provides a simple *public trust service* (TS). TS vouches for the Merchant's validity including their claimed account number.

The data provided by a TS is *digitally signed* by the Merchant Bank and is thus to be trusted by all Banks sharing a specific payment schema like SEPA Inst.

Security with respect to requests (1) is maintained through *mutually signed digital contracts* resulting from the Merchant and User authorization step, combined with TS lookups (2).

The arrows in the diagram are *transient*; *there is no need for externally configured security, path, or routing information*.

The actual payment business remains in the hands of the *fully decentralized* network of Banks running a specific payment scheme.