Presumed EPI "Front-end" Architecture
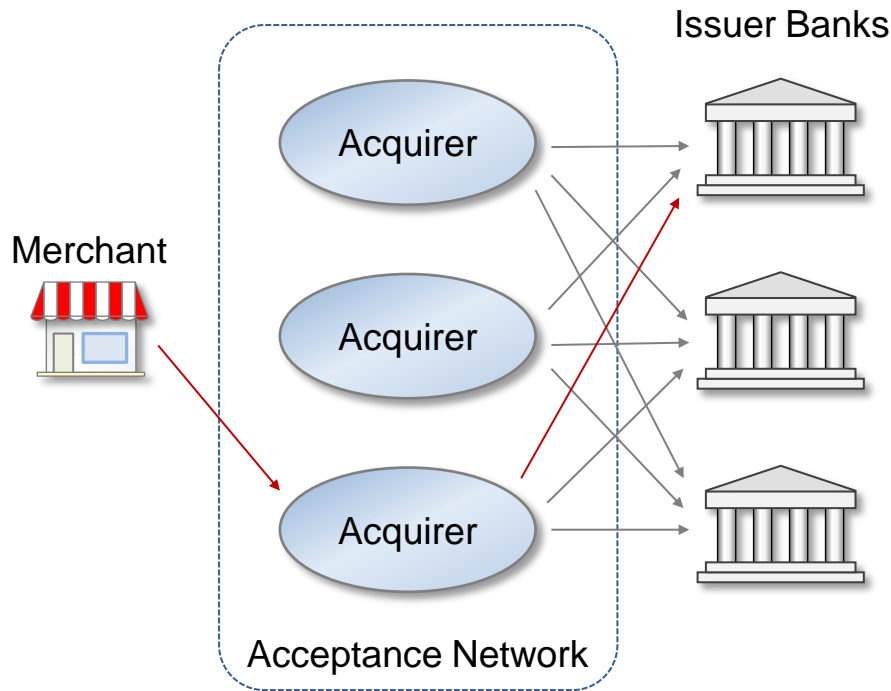

Issuer Banks

Acquirer

Acquirer

Acquirer

Acceptance Network

Merchant

In the traditional architecture for card-based authorizations, a Merchant is connected an Acquirer which handles the communication with the Issuer Banks. The Acquirer is the entity that usually 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.

The traditional architecture 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.

Saturn

Issuer Banks

Merchant

1. Request

2. Lookup

Merchant Bank

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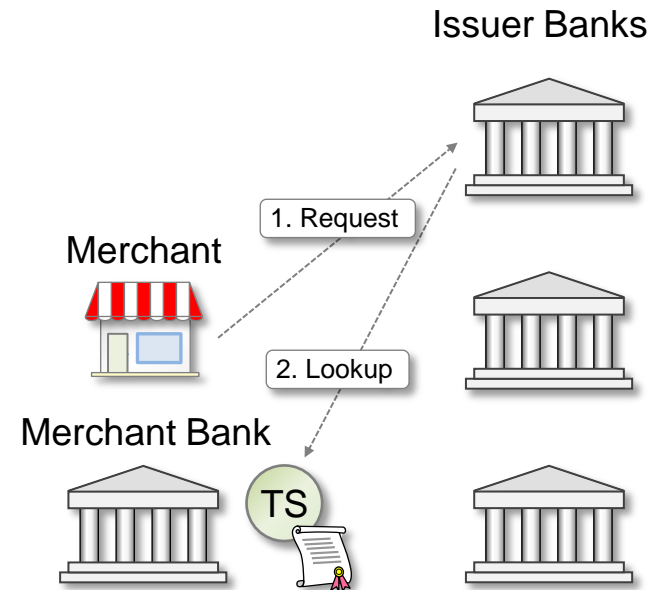
In the Saturn architecture a Merchant has a business agreement with their account-holding Bank which also provides a simple *public trust service* (TS). TS vouches for the Merchant's validity including their claimed account number.

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 is maintained though a *digital contract* including the (not shown here) user's authorization. Only *mutually authorized transaction requests are accepted by the Issuer Banks*.

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

The actual payment business is entirely in the hands of the associated, fully decentralized network of Banks running a specific payment scheme.