

The HCE - Tokenisation Testing 101

What is HCE?



- Acronym for Host Card Emulation
- Allows mobile payments without secure element on mobile device
- Payment data is stored in the cloud

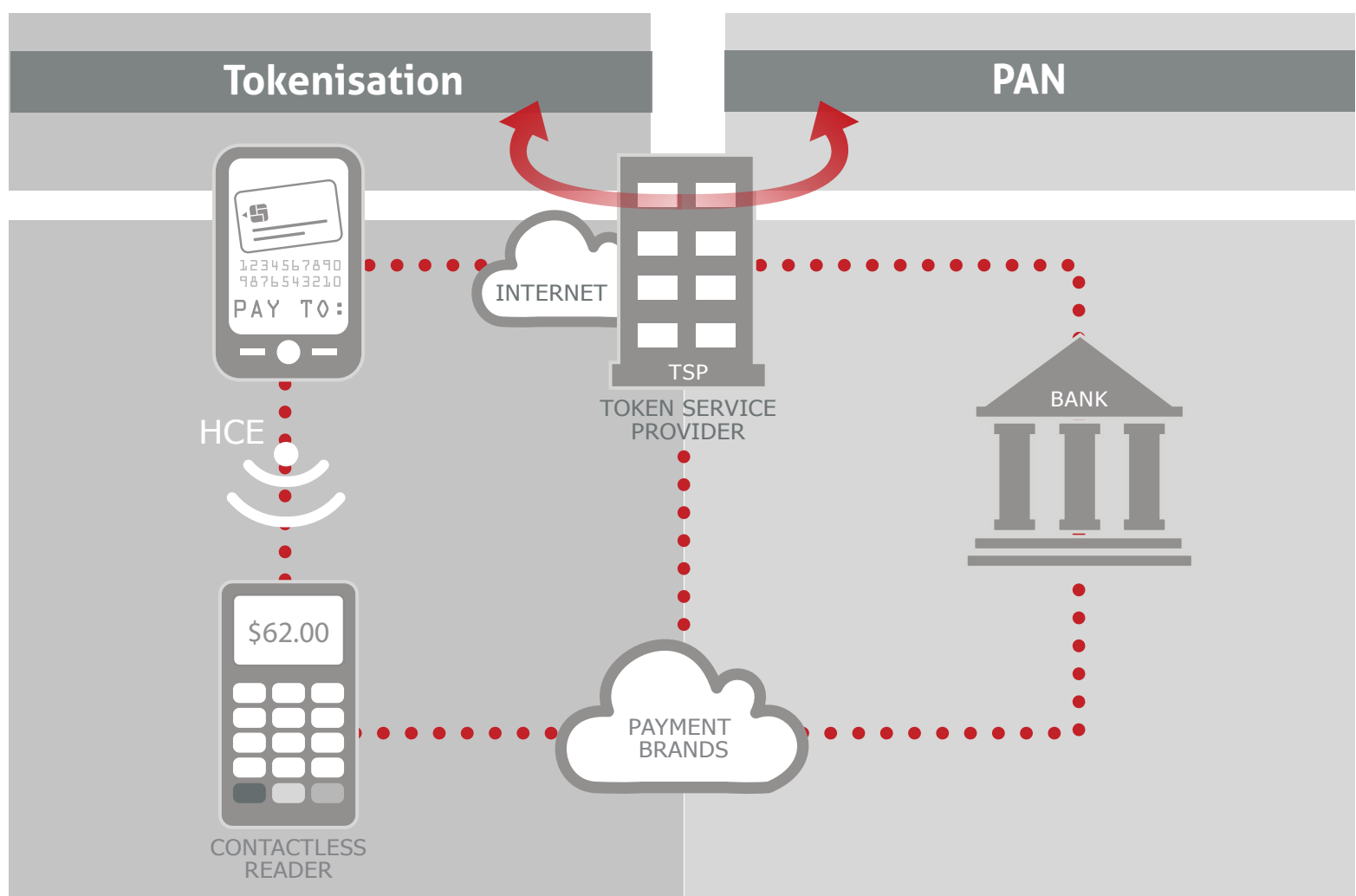
What is TOKENISATION?

- Replaces sensitive data (e.g. PAN) with a no-value token unusable to non-authorized parties
- Framework published in 2014 by EMVCo
- Token can be:
 - Limited in time and channel
 - Limited by number of uses
 - Capped to maximum amount
 - ...
- Adds security to HCE-based payments



HCE combined with TOKENISATION enables

- Secure payment systems
- Lighter delivery process of payment applications
- Simplified mobile payments
- Uses existing payment infrastructure



Tokens are used to reduce the risks inherent to the transfer of sensitive payment data such as the Primary Account Number. Generation of the tokens is done by the TSP.

The tokenized PAN is sent from the handset to the POS device and then to the issuing bank for transaction authorization. During the payment process, the TSP also provides a service to map back the PAN from the Token used in the transaction, which is sent over the payment brand network.

This way, the unsecure token space and secure PAN space are distinct areas.

TESTING: WHAT? HOW?

- Ensures **conformance** to mandatory payment brand rules
- Guarantees **compliance** to EMV specifications
- Validates end-to-end **quality**

