VISA CARD PERSONALIZATION VALIDATION TOOL

Description
Before a smart card can be issued to the card holder, different data elements must be personalized. The personalization process requires that issuers determine specific values for:

- The card
- The application residing on the card
- The cardholder
- The intended use of the card

These elements represent the issuer’s wishes and restrictions as to how that smart card shall operate in the payments environment. Only a chip correctly personalized will properly compute the cryptograms.

Therefore, testing the personalization of the EMV card is an important factor of the overall testing process, as replacing cards in the field is a costly matter.

Integri’s Card Personalization Validation Tool ensures that the personalization of the chip accurately reflects the issuers’ intent. It is an easy-to-use tool to help a Card Vendor validate all aspects of the personalization.

A distinction can be made between the different phases of the test project:

- **Preparation**: before testing, the user should provide the necessary data enabling validation of the personalization of the card. This doesn’t only include the configuration of the smartcard reader. During the validation, the Card Profiles are one of the key elements, containing an indication of the expected values for certain data on the card. In the Profile Management module, one can view, update and create the Card Profiles. In order to facilitate the update of test parameters, the user can easily import new card profiles as well.

- **Execution**: this module allows the user to select test settings and perform the actual validation of the card. The module makes it possible to select a number of test parameters and validate the card personalization against a number of reference files (Card Profiles) and against the EMV rules and settings.

- **Analysis**: when testing is completed, the user needs to analyze the results of the validation. The Card Personalization Validation tool offers the possibility to verify the commands and responses exchanged between the card and the tool using the Log Viewer. Based on the results of the test, a report can be generated which contains an overview on the validations which have been performed and their result.

The Card Personalization Validation Tool is available in 2 modes:

- **Runtime version**: In this version, the user can perform test cases using all predefined validations available in the tool. All modules described above are available in the runtime version.

- **Development version**: The development version allows to define customized validations or to add specific test cases. When for example proprietary tags need to be validated, an extra check can be added when using the development version.
**Available functionalities**

An overview of the supported functionalities can be found below:

- **Preparation:**
  - Configuration of the card reader
  - Configuration of parameters like key sets,…
  - Manage Card Profiles:
    - View card profile details
    - Create new card profile
    - Modify existing card profiles (adding fields, changing values, remove fields,…)
    - Import data into card profiles database

- **Execution:**
  - Management of Card images
  - Personalization validation module:
    - Select test parameters (Card Profile to be used, validate Chip versus Magnetic stripe data, verify EMV rules,…)
    - Select a card type (physical card, stored card model, batch of cards)
    - Perform the Personalization Validation test (using the parameters selected before)
    - Read physical card and store the resulting card model in a database.

- **Analysis:**
  - Detailed analysis of commands and responses in the LogViewer
  - Different reports can be generated (detailed report, management summary, statistics,…)

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![Image of Card Personalization Platform interface](image-url)