Update for EMV Book C-5
Remove the feature of Torn Transaction Recovery

Applicability

This Specification Bulletin applies to:

- *EMV® Contactless Specifications for Payment Systems, Book C-5 – Kernel 5 Specification, Version 2.10, March 2021*

Related Documents

- *None*

Effective Date

- *1 January 2024*

Description

This bulletin is to remove the feature of Torn Transaction Recovery.

Details of Changes

(1) Remove the description of "Transaction Recovery" under the section 2.3 as follows.

The purpose is to provide a summarised overview of the normal Reader processing and is not prescriptive. Note that specific processes like ~~Transaction Recovery or~~ Issuer Update are not represented in this figure which features only a nominal transaction flow.

(2) Under the section 3.2, remove the section 3.2.1.1 and move forward the following section numbers accordingly.

~~Requirement – Recovering from Torn EMV Transaction~~
~~3.2.1.1~~   ~~**If** the Kernel internal variable *'Recovering from Torn EMV Transaction'* has value TRUE,~~   ~~**Then** the Kernel shall proceed with Torn Transaction Recovery as described in section 3.13.~~   ~~**Otherwise** the Kernel shall proceed with Requirement 3.2.1.2.~~

(3) Under the section 3.11.2, remove the section 3.11.2.1 and 3.11.2.2, and move forward the following section numbers accordingly.

Requirement – Communication Errors – First GENERATE AC

~~3.11.2.1~~ ~~**If** a Transmission, Protocol, or Timeout error as defined in *[EMV L1 Contactless]* is reported to the Kernel during the first GENERATE APPLICATION CRYPTOGRAM command of a transaction in EMV Mode,~~
~~**Then** the Kernel shall prepare the *Recovery Context* as follows:~~

- ~~Set indicator *'Recovering from Torn EMV Transaction'* to value TRUE;~~

- ~~Store the card Track 2 Equivalent Data value (Tag '57') into variable *'Torn Track 2 Data'*;~~

- ~~**If** CDA has been requested by the Kernel, concatenate in this order and store in variable *'Torn CDA Hash Data Buffer'*~~

  - ~~The values of the data elements specified by, and in the order they appear in the PDOL, and sent by the Kernel in the GET PROCESSING OPTIONS command~~
  - ~~The values of the data elements specified by, and in the order they appear in the CDOL1, and sent by the Kernel in the GENERATE AC command~~

~~3.11.2.2~~ ~~The Reader shall retain the *Recovery Context* and make it available to the Kernel for the next Kernel Activation.~~

~~The Kernel shall terminate the transaction and provide an ***End Application (with restart – Communication errors)*** Outcome as described in section 3.12.8.~~

(4) Remove the whole of the section 3.13.

(5) Remove "ECHO" APDU command from the Table 4-1.

CLA	INS	Meaning	Requirement
~~'80'~~	~~'DF'~~	~~ECHO~~	~~Mandatory~~
'80'	'AE'	GENERATE APPLICATION CRYPTOGRAM	Mandatory
'80'	'A8'	GET PROCESSING OPTIONS	Mandatory

CLA	INS	Meaning	Requirement
'00'	'B2'	READ RECORD	Mandatory
'00'	'A4'	SELECT	Mandatory

(6) Remove the whole of the section 4.1 and move forward the following sections.

(7) Remove the description of the SW '6200' under the "Processing State Returned in the Response Message" of the section "4.4 GET PROCESSING OPTIONS".

- ~~'6200' (warning) indicates a successful execution of the command during a torn transaction recovery.~~

(8) Remove the following data elements from the Table B-1 as follows.
- 'Recovering from Torn EMV Transaction' Flag
- Recovery Context
- Torn CDA Hash Data Buffer
- Torn Track 2 Data

Name	Description	Source	Presence	Format	Specified	Tag	Length
READ RECORD Response Message Template	Contains the contents of the record read. (Mandatory for SFIs 1-10. Response messages for SFIs 11-30 are outside the scope of EMV, but may use template '70')	ICC	M	var.	EMV	'70'	var. Up to 252
~~'Recovering from Torn EMV Transaction' Flag~~	~~Internal Kernel variable (Boolean) set to TRUE when the Kernel attempts to recover from a torn transaction (EMV Mode only)~~	~~Kernel 5~~	~~C~~	~~-~~	~~Kernel 5~~	~~-~~	~~-~~
~~Recovery Context~~	~~A set of persistent Kernel parameters involved in the management of torn EMV transactions. It consists of:~~ ~~- 'Recovering from Torn EMV Transaction' Flag~~ ~~- 'Torn Track 2 Data'~~ ~~- 'Torn CDA Hash Data Buffer'~~	~~Kernel 5~~	~~C~~	~~-~~	~~Kernel 5~~	~~-~~	~~-~~
Removal Timeout	Present if the Combination supports Issuer Update as Acquirer Option (EMV Mode only). In case of Online Request with "Present and Hold" outcome, this parameter corresponds to the time after which cardholder is asked to remove the card. Value is given in units of 100ms.	Configuration (AID)	C	n 4	Kernel	-	2
Response Message Template Format 1	Contains the data objects (without tags and lengths) returned by the ICC in response to a command	ICC	C	var.	EMV	'80'	var.
Response Message Template Format 2	Contains the data objects (with tags and lengths) returned by the ICC in response to a command	ICC	M	var.	EMV	'77'	var.

Name	Description	Source	Presence	Format	Specified	Tag	Length
Terminal Interchange Profile (static)	Defines the Cardholder Verification Methods and other reader capabilities (online capability, contact EMV capability) for the Combination	Configuration (AID)	M	b	Kernel 5 See A.5	-	3
Terminal Type	Indicates the environment of the terminal, its communications capability, and its operational control	Configuration (POS)	M	n 2	EMV	'9F35'	1
Terminal Verification Results (TVR)	Status of the different functions as seen from the terminal	Kernel 5	M	b	EMV / Kernel 5	'95'	5
Threshold Value for Biased Random Selection	Value used in terminal risk management for random transaction selection. Present if the Combination supports Random Transaction Selection (EMV Mode only)	Configuration (AID)	C	n 12	EMV	-	6
Token Requestor ID	An 11-digit numeric value that identifies each unique combination of token requestor and token domain(s) for a given token service provider.	ICC / Issuer	O	n 11	EMV	'9F19'	6
~~Torn CDA Hash Data Buffer~~	~~A copy of the PDOL related data and CDOL1 related data sent to the card during a torn transaction in EMV Mode. This copy is used to verify the CDA signature during the subsequent transaction recovery process.~~	~~Kernel 5~~	~~C~~	~~b~~	~~Kernel 5~~	~~-~~	~~Var. up to 507~~
~~Torn Track 2 Data~~	~~A copy of the card Track 2 Equivalent Data, kept by the Kernel after a torn transaction in EMV Mode to ensure that the card presented for recovery is the same as for the torn transaction~~	~~Kernel 5~~	~~C~~	~~b~~	~~Kernel 5~~	~~-~~	~~Var. up to 19~~

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