**1. Basics**

[**1.1 Answer to Reset**](https://www.openscdp.org/scripts/tutorial/emv/resetatr.html)

Answer to Reset describes how card and terminal negotiate communication parameter.

[**1.2 File Structure & APDU**](https://www.openscdp.org/scripts/tutorial/emv/reademv.html)

Here we get some information about the file structure of EMV cards. Also we learn how the communication between card and terminal works.

[**1.3 ASN1 and TLV**](https://www.openscdp.org/scripts/tutorial/emv/TLV.html)

This chapter describes the data structures, ASN.1 and TLV encoding in particular.

**2. Transaction Process**

[**2.1 Application Selection**](https://www.openscdp.org/scripts/tutorial/emv/applicationselection.html)

Application selection is the first function performed after the ATR. It selects the desired application on the card.

[**2.2 Initiate Application Process**](https://www.openscdp.org/scripts/tutorial/emv/initiateapplicationprocess.html)

This function initiates the transaction process and returns the AIP and AFL.

[**2.3 Read Application Data**](https://www.openscdp.org/scripts/tutorial/emv/readapplicationdata.html)

This function reads all files which are listed in the AFL.

[**2.4 Static Data Authentication**](https://www.openscdp.org/scripts/tutorial/emv/SDA.html)

Static Data Authentication ensure the authenticity of the card's data.

[**2.5 Dynamic Data Authentication**](https://www.openscdp.org/scripts/tutorial/emv/dda.html)

DDA is a more secure way of authentication. Additionally, it ensured the uniqueness of cards.

[**2.6 Processing Restrictions**](https://www.openscdp.org/scripts/tutorial/emv/processingrestrictions.html)

Checks the compatibility of card and terminal.

[**2.7 Cardholder Verification**](https://www.openscdp.org/scripts/tutorial/emv/cardholderverification.html)

Introduction of the Cardolder Verification Methods.

[**2.8 Terminal Risk Management**](https://www.openscdp.org/scripts/tutorial/emv/terminalriskmanagement.html)

A list of safety measures to protect from fraud.

[**2.9 Terminal Action Analysis**](https://www.openscdp.org/scripts/tutorial/emv/terminalactionanalysis.html)

Description of the terminal's online/offline transaction decision

[**2.10 Card Action Analysis**](https://www.openscdp.org/scripts/tutorial/emv/cardactionanalysis.html)

Description of the card's online/offline transaction decision and transaction completion.