



The EMV Analyzer can show all of the technical details of EMV standards via real EMV transactions.

ITS EMVAnalyzer

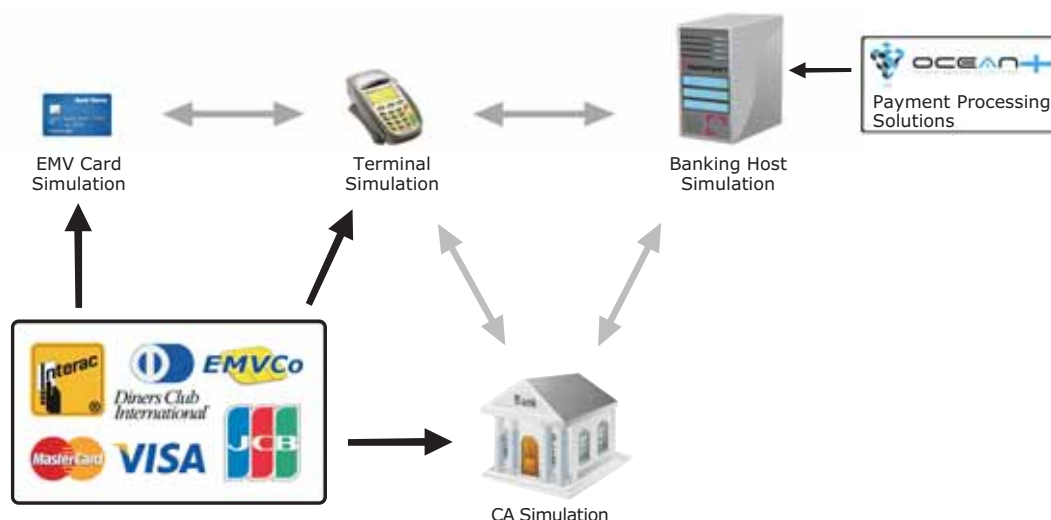
The EMV Analyzer conducts tests, simulations, and quality control of EMV cards.

Integrated Testing Solutions

ITS EMVAnalyzer is a PC based tool with visual interfaces that helps to understand the complex EMV items with detailed screens and descriptions. Its main function is to conduct make tests, simulations, and the quality control of EMV cards by conducting a real and fully EMV-compliant transaction. It is also a perfect training tool since it implements all of the EMV steps according to EMV standards and shows the results in the user screens with details.

It is mostly used by issuer institutions to analyze their cards and to understand if the card is working with compliance to EMV standards. It helps issuers to prevent wrong card personalizations. Issuers may take benefit of ITS EMVAnalyzer to go into very technical details of the EMV

transaction when they need to analyze the problems present within the card. Thanks to the terminal simulation feature, users can simulate different terminal types (i.e POS, ATM) and terminal configurations to test and analyze the card in different conditions. With the issuer simulation feature, communication between the terminal and issuer network system is simulated and the transaction is conducted as if the terminal connects to a real issuer system. Various issuer functions like issuer script generation and cryptogram verification are performed by the issuer simulator module of ITS EMVAnalyzer by eliminating the need to establish a connection to real issuer systems. ITS EMVAnalyzer can alternatively be connected to issuer networks to test the issuer's system by conducting EMV transactions with different terminal configurations.



Integrated Testing Solutions

GENERAL FEATURES	EMV ANALYZER	OTHERS
Last version of EMV Standard	✓	✓
Testing and Analyzing EMV Card	High Level	Medium Level
Certified EMV L2 Kernel Flows	✓	-
Supported brands (MasterCard, VISA, AMEX, JCB, Diners, Interac)	✓	✓
Contact EMV Specifications (Mchip 2.1, MChip 4.0, VSDC 1.4.0)	✓	✓
Contactless EMV Specifications (PayPass MChip 1.3, MagStripe 3.1, PayWave Qvscd, MSD)	✓	Some
Latest Technologies (VMPPA, MMP)	✓	-
EMV TERMINAL SIMULATION		
CA Public Simulation	✓	-
Step by step EMV Steps Conduction	✓	-
Revocation and Exception List Management	✓	✓
Parameter Configuration	✓	✓
EMV ISSUER SIMULATION		
Issuer script preparation	✓	✓
Issuer key management	✓	-
Connecting to real acquiring and issuing networks through ISO 8583	✓	-
ARQC and ARPC generation	✓	✓
ARPC Response code preparation	✓	-
EMV TRANSACTION FUNCTIONS		
Access to value and detailed screens of EMV card, terminal, issuer, and transaction parameters in bit level, showing detailed page of related EMV specifications	High Level	Medium Level
Analyzing screens of card, terminal, and transaction parameters to understand the reason of card and terminal decisions	High Level	Medium Level
Transaction Brief by showing the main transaction steps and results in each step	✓	-
QUALITY CONTROLS		
Quality check of transaction flow	✓	-
Format control of ISO 7816 commands and data elements	✓	-
ADDITIONAL FUNCTIONS		
Fraud simulation (Modifying card and terminal parameters during transaction)	✓	-
Excel and Pdf reports of transaction flows	✓	✓
Comparison of 2 different cards	✓	-
Manually designed card commands through ISO 7816 command builder (Access to proprietary card data elements)	✓	-
Conversion between bitwise and byte corresponding of data elements	✓	-
Fallback and magnetic stripe simulation	✓	-
EMV Crypto Module	✓	✓
TLV Parsing Module	✓	✓

About SmartSoft Information Technologies

SmartSoft offers software solutions and services for the Payment Industry, focusing on card based payment processing and chip based financial card issuance. Offering a wide range of products, like smartcard personalization, card management, and mobile payment

solutions, SmartSoft helps its clients to improve their card business and get involved in new business fields. By successfully implementing a wide array of worldwide innovative projects, SmartSoft is now a pioneer in the field and enjoys its rapidly increasing market share in both horizontal and vertical markets.



Kartek Kart ve Bilişim

Teknolojileri Tic. Ltd. Şti.

İTÜ Ayazağa Kampüsü Teknokent

ARI 2 A Blok K: 2 34469

Maslak - İstanbul / TÜRKİYE

P : +90 212 328 33 31 (pbx)

F : +90 212 285 40 93

E : info@smartsoftww.com

www.smartsoftww.com

SmartGroup-US LLC: 244 5TH AVE

#2551 NEWYORK, NY 10001-7604

P : +1 (646) 571 22 85

SmartGroup Balkans DOO:

27-th of March Street

No: 501 Skopje/MACEDONIA



www.kosgeb.gov.tr