

# KaNest<sup>®</sup> Transactional Testing

The KaNest<sup>®</sup> simulator offers capabilities to perform and automate all tests of a transactional system to validate the conformance with specifications, an application protocol, standards of performance, business requirements or regulations.

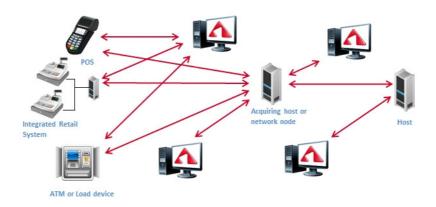
KaNest<sup>®</sup> addresses all test purposes:

- unit tests;
- functional validation;
- regression testing;
- stress and load testing;
- test automation;
- production system monitoring

KaNest<sup>®</sup> is your best partner to test, evaluate and certify Terminals, Hosts, Switches or Networks, as well as Mobiles.

# **KEY FEATURES**

- Test automation
- Replay of message flow
- Any transactional protocol (TLV, ISO 8583, XML...)
- Multiple simulation channels
- Full cryptography
- Messages initiated from real cards
- Remote control
- Interface with HP ALM software
- Interface with Test Designer<sup>™</sup> from Smartesting
- Running KaNest<sup>®</sup> simulators in a SaaS mode from Galitt Cloud Testing



# **GALITT ADVANTAGE**

KaNest® is recognized as the state-of-the-art simulator for functional testing:

- KaNest<sup>®</sup> is used by designers, payment systems and card schemes to validate POS, hosts, interfaces to networks.
- KaNest<sup>®</sup> may simulate any kind of protocol to test a wide set of transactional systems, including stock exchanges and betting systems. Protocols can be directly created and modified by users.
- KaNest<sup>®</sup> may perform load and stress testing from a single PC, such as the simulation of 6,000 ATMs or the production of a flow of 900 payment transactions per second.
- The same KaNest<sup>®</sup> simulator can be set up to perfect the monitoring of production hosts.

# **KaNest**®









### TEST SUITES

 Responder Hosts for Acquirers E2E testing (Level 3) (American Express, Discover® Global Network, Mastercard, Visa...)

qualified by American Express, Discover<sup>®</sup> Global Network, confirmed by Visa

 Discover<sup>®</sup> Global Network for Issuers and Acquirers

qualified by Discover® Global Network

- CBAE, CBcom, CB2A, nexo...
- nexo qualified
- GlobalPlatform TEE
- qualified by GlobalPlatformGlobalPlatform TEE Security
- **qualified by GlobalPlatform** for laboratories dedicated to TEE security evaluation
- GlobalPlatform TEE SE API
- GlobalPlatform OMAPI (Open Mobile API) qualified by GlobalPlatform
- GlobalPlatform SEAC Device qualified by GlobalPlatform

# Some KaNest<sup>®</sup> FEATURES

## Data Driven Testing Mode (DDT)

With DDT mode, tests are implemented in simulators simply and quickly. Tests are defined in an Excel sheet and published in KaNest<sup>®</sup> by simple import. They are easily modifiable by the user according to the needs.

## Test as a Service (TaaS)

Galitt Cloud Testing is a platform of KaNest<sup>®</sup> simulators hosted by Galitt, offering Software as a Service (SaaS). Galitt Cloud Testing leverages the power of simulators and DDT mode to define and run Test Suites from a simple web browser.

### **Repository edition**

The KN-E module generates or updates a Repository to implement protocol specifications and create new control and simulation capabilities.

## **Remote control**

The KN-D module provides an API allowing any Windows<sup>™</sup> application to launch test scripts and collect selected results from the simulator. A fully automated test platform can thus be created.





Member of the

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## LOAD & STRESS TESTING

### **TURBO Mode**

This mode consists in using a specific KaNest<sup>®</sup> communication driver for a given protocol. This driver generates a huge throughput of messages per second based on real data.

### KaNest<sup>®</sup>-Director

It can drive many KaNest<sup>®</sup> independently to generate heavy loads on the System Under Test (SUT) and check its behaviour. The load can be adjusted to reproduce the real world.

### KaNest<sup>®</sup> UTILITIES

# Centralized management of licenses

KaNest<sup>®</sup>-DSS gives the capability to centrally manage licenses, KaNest<sup>®</sup> databases as well as users:

- license sharing;
- management of user rights;
- KaNest<sup>®</sup> database sharing and management;
- broadcasting of KaNest<sup>®</sup> software updates.

### **Test automation**

KaNest<sup>®</sup>-Supervisor is dedicated to centrally drive and supervise all interactions with the System Under Test.

KaNest<sup>®</sup>-Supervisor enables to fully automate a test campaign without manual management.

## INTEGRATION WITH EXTERNAL

Optionally combined with KaNest<sup>®</sup>-Supervisor, the integration of KaNest<sup>®</sup> with other tools from the market leads an unequalled testing automation.

### **HP ALM**

This module enables to drive KaNest<sup>®</sup> from HP ALM software. KaNest<sup>®</sup> work-spaces for acceptance processes can also be updated with data from HP ALM software.

## Test Designer<sup>™</sup> (Smartesting)

KaNest<sup>®</sup> Test Scripts can be generated from Test Designer<sup>™</sup> in accordance with the requirements built from the modeling of the system to be tested.



### **Tested Functions**

#### Protocol application layers for:

- POS, Integrated retail systems
- ATMs
- Acquiring and Issuer hosts
- Switches and Network nodes
- Transaction processors
- WEB services hosts

### Communications

- Web-Services
- TCP/IP
- PSTN (modems)
- Null Modem (RS232 cable)
- SSL
- RFC 1086
- M/Q Series single or multi process modes

#### Formats

- ISO 8583 bitmaps
- TLV (Tag Length Value) Fields
- Fixed and delimited fields
- XML

### **Repositories (Protocols)**

- Networks: ISO 8583, CBAE, Base I & SMS, MAS & MDS, AEGNS, DCI, DISCOVER, Trionis, Berlin Group, BASE24, CUP/UPI, LINK, BIM, SID...
- ATM: NDC+, D912, Logigab, Diego, GAB-D, COX, DIAS...
- POS: CB2A, C-TAP, SPDH, Hypercom, APACS, PRICE, proprietary...
- XML: EPAS. IFX. nexo
- Mobile: GlobalPlatform TEE APIs
- Private implementations

### Hardware Configuration

- Monitor SXGA (1280x1024)
- 4 GB RAM (recommended)
- At least available 4 GB on the diver
- A USB port to connect the license key (dongle)

#### **Operating System Configuration**

Windows<sup>™</sup> 7 32 bits SP1 Windows<sup>™</sup> 7 64 bits SP1 Windows<sup>™</sup> Server 2008 R2 Windows<sup>™</sup> 8 Windows<sup>™</sup> Server 2012 Windows<sup>™</sup> 10 64bits