KaNest[®] Transactional Testing

a Sopra Steria company Passion for payments















The KaNest[®] 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[®] addresses all test purposes:

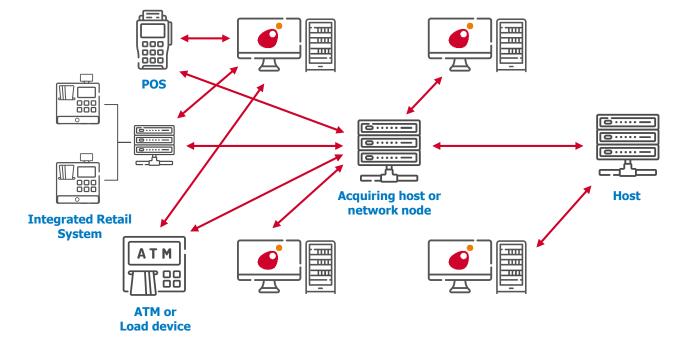
- ∟ unit tests
- functional validation
- regression testing
- stress and load testing
- test automation
- production system monitoring

 ${\sf KaNest}^{\circledast}$ 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, ISO 20022, XML, JSON...)
- Multiple simulation channels
- ∟ Full cryptography
- \hdots Messages initiated from real cards
- Remote control
- Interface with HP ALM software,
- □ Interface with Test Designer[™] from Smartesting
- Networked license management
- Running KaNest[®] simulators in a SaaS mode from Galitt Cloud Testing



QUALIFIED NETWORK TEST SUITES

- Responders for integration tests (Level 3) (American Express, Discover[®] Global Network , Mastercard, Visa...) qualified by the payment systems
- Discover[®] Global Network and DCI Xpress for Issuers and Acquirers qualified by Discover[®] Global Network
- ____ CBAE, CBcom, CB2A, nexo...
- ____ Nexo qualified
- GlobalPlatform TEE qualified by
 GlobalPlatform
- GlobalPlatform 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

KaNest[®] 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[®] 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[®] 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[™] application to launch test scripts and collect selected results from the simulator. A fully automated test platform can thus be created.

LOAD & STRESS TESTING



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

KaNest[®] UTILITIES

Centralized management of licenses

KaNest[®]-DSS gives the capability to centrally manage licenses, KaNest[®] databases as well as users:

- License sharing
- ____ Management of user rights
- KaNest[®] database sharing and management
- _ Broadcasting of KaNest[®] software updates

Test automation

KaNest[®]-Supervisor is dedicated to centrally drive and supervise all interactions with the System Under Test.

KaNest[®]-Supervisor enables to fully automate a test campaign without manual management.

INTEGRATION WITH EXTERNAL TOOLS

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

Micro Focus ALM, Xray et Squash TM

This module enables to drive KaNest[®] from HP ALM software. KaNest[®] workspaces for acceptance processes can also be updated with data from HP ALM software.

Test Designer™ (Smartesting)

KaNest[®] Test Scripts can be generated from Test Designer[™] in accordance with the requirements built from the modeling of the system to be tested.



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TECHNICAL SPECIFICATIONS

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
- _____SSL
- ____ RFC 1086
- ____ M/Q Series single or multi process modes

Formats

- _ ISO 8583 and ISO 20022 bitmaps
- _____TLV (Tag Length Value) Fields
- Fixed and delimited fields
- _ XML
- ____ JASON

Repositories (Protocols)

- Networks: ISO 8583, ISO 20022, 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, C0X, DIAS...
- POS: CB2A, C-TAP, SPDH, Hypercom, APACS, PRICE, proprietary...
- ____ XML: EPAS, IFX, nexo
- ____ Mobile: GlobalPlatform TEE APIs
- _ Private implementations

Hardware Configuration

- _ Dual-core processor
- _ Monitor SXGA (1280x1024)
- 4 GB RAM
- _ 4 GB free hard disk space for installation
- 10 GB free hard disk space for the generated Result Files (the required space depends on the configured simulation options)
- USB port to connect the dongle,
- USB port to connect various peripherals (card readers, probes, ...)
- Services required to use TCP/IP

Operating System Configuration

- ____ Windows™ 10
- _ Windows[™] Server 2016
- _ Windows[™] Server 2019

GALITT ADVANTAGE



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

- KaNest[®] is used by designers, payment systems and card schemes to validate POS, hosts, interfaces to networks
- KaNest[®] may simulate **any kind of protocol** to **test a wide set of transactional systems**. Protocols can be directly created and modified by users
- KaNest[®] 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[®] simulator can be set up to perfect the **monitoring of production hosts**



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