

# FASTress®

## Accurately Measure your True Transaction Capacity Using Dynamically Configurable Testing

Determining your system capacity is critical when you are updating your transaction system, adding new ATM or POS devices, merging an acquired network, adding new transactions or changing your switch. The last thing you want is to have your users experience delays or denied transactions because your system is overloaded. Measure overall system capacity and identify bottlenecks, so you don't experience them in production, with FASTress.

Thoroughly test device handling, network throughput and communications bandwidth by processing enormous volumes of simultaneous transactions from multiple sources. FASTress emulates each device in your network including ATM and POS devices, switch issuers and acquirers. With FASTress you can "know before you grow"—ensuring your systems are ready for growth and expansion.

### With FASTress Your Organization Can:

Benchmark, Performance, and Capacity (Load) Testing

Thoroughly Stress-Test Multiple Devices, Switches and More

Exercise Dynamic, Real-Time Testing Control

Guarantee Reliable Results

Accurately Document System Capacity

Produce Files for Use in Testing Batch Processing (for some FASTress test schemes)

### What our Customers are saying ...

"The combination of Paragon's FASTress simulator and their expertise helped our team to complete the stress test engagement on time based on our defined schedule and gave us the information we needed to determine our future CPU needs."

**Mr Afiful Fu'ad Haryono** - Vice President IT Operation Group, Bank Mandiri



## Control the Rate of Transactions During the Test

With its scalable design, FASTress provides very high transaction volume— and offers dynamic test configuration as the test runs.

- Select the devices and switches to test with FASTress and connect them with a single click.
- Vary transaction volume during testing — send multiple transactions per second like a switch or POS concentrator, or send transactions synchronously like an ATM.
- Dynamically increase or decrease transactions per second (TPS) or change the number of active connections (that is, the number or types of devices) during testing to determine the effect on system performance.

## Thoroughly Stress Test Multiple Devices, Switches and more from your PC

Conduct comprehensive load or stress testing from your desktop without scheduling test time with your switches or without a room full of real ATMs. Accurately simulate a single high volume device or switch, or up to hundreds of transaction originators including POS devices, various ATM types and multiple switch issuers or acquirers—in various combinations. Test various end-points (for example, on-us cards at an ATM to test your host's processing, not-on-us cards at an ATM to test routing and external authorization end-points) using multiple agents and individual card files per agent. FASTress dynamically encrypts PIN data during testing, facilitating stress testing of Hardware Security Modules (HSMs).

## Customize Testing

- Configure the desired time-out intervals for each agent
- Simulate testing during specific time periods to identify bottlenecks
- Import your trace files to build your own set of tests
- Test using existing transactions and cardholder information, or select a range of PANs and have FASTress create random account numbers to use for testing.

## Accurately Document System Capacity

FASTress provides a real time graphical view of requests per second (RPS) for the consolidated system and for each test scheme. After testing, FASTress delivers reports of test results and captures raw test data for further analysis.

- Reports RPS, Number of Requests, Average Response Time and Number of Responses Received to assist in determining if increased transaction rate has negative effect on system performance.
- Matches responses with requests
- Supports initial sign-on and key exchanges for networks
- Flags any “denied” ISO 8583 transaction and dynamically tracks requests and denials for an agent during test execution

## FASTress:

Simultaneously emulates multiple ATM types, POS devices and switches

- Diebold, NCR, Triton or Wincor ATMs
- POS Devices
- Visa, STAR, MasterCard (and more!) issuers and acquirers

Measures your system's ability to drive more terminals and process more transactions per second

Accurately tests system capacity, response time and communications bandwidth

Simulates transactions from hundreds of devices—even from multiple switch networks

Provides real-time view of test results, as well as post-testing documentation

Allows you to change the number of active connections and transaction volume during testing

Allows you to test with your card list or with random card numbers generated by FASTress

Provides optional PIN checking

Functions independently of your test system, so it does not “steal cycles” from the system under test

Processes transactions using TCP/IP

Designed for installation on English-language versions of operating systems only

