

Lusis Payments participated in a recent proof of concept, which demonstrated that its TANGO platform is capable of processing 2,500 transactions per second (TPS) for 48 hours straight without failure.

The client that participated in the proof of concept currently operates more than 20 million terminals, deployed in over 125 countries, which include some of the world's largest financial institutions. For the proof of concept, Lusis Payments simulated the client's system to test TANGO.

HP ran the proof-of-concept tests at its Palo Alto, California, facilities on HP hardware and worked with the client to reproduce its environment for a true simulation. As a Lusis Payments partner, HP was proud to demonstrate how well an elite product like TANGO can maximize the high performance of HP Nonstop servers. The project determined that TANGO is fault-tolerant and achieves outstanding volumes and throughput.

## About the Client

The client for the proof of concept is a leading provider of payment solutions. Its employees support retailers, banks and service providers worldwide to optimize and secure their electronic payments solutions, develop their offer of services and increase their point of sales revenue.

With over 20 million terminals deployed in more than 125 countries, the client offers a one-stop shop of secure transaction solutions, consisting of the following:

- Payment terminals and terminal estate management
- Payment applications (local, international, debit, credit)
- Connectivity
- Routing
- Value-added services (money transfers, mobile phone top-ups, loyalty card and credit card management, payment of fines, bills etc) supporting all sales channel used by retailers: payment at points of sale, over the Internet or by mobile telephone

The client's transaction services business has grown substantially to up to 35 percent of the overall revenue and the organization expects further growth in coming years. Its processing systems and applications processed more than 3 billion payment transactions in 2012, with a combined peak of >2,000

TPS. As a result of several acquisitions in the past years, the client now owns seven processing solutions, partially dedicated to a payment channel, that are mostly isolated, use different hardware, operating systems and databases, and are served by dedicated teams for development, test and operational tasks.

## Highlights of TANGO Proof of Concept

- Proved fault-tolerant and responsive
- Achieved maximum volumes and throughput of 50 million transactions per day
- Processed 2,500 TPS for 48 hours straight
- Surpassed normal daily tasks and nightly settlements

## Why TANGO?

The client identified a need for a next-generation payment transaction processing solution that could serve as a centralized payment gateway (switch) providing services to existing channel access solutions, thus reducing costs by harmonizing development, test, deployment and operations activities, reducing time-to-market and increasing the overall quality to the end-customer.

One candidate for a payment gateway to fulfil this need is the Lusis Payments TANGO platform. In principle, TANGO can be seen as a middleware where payment components are connected by a common data bus. The solution's message-based design allows for high scalability and flexible modular composition of components controlled by configuration files instead of programmed code, which makes it easy to tailor the OLTP platform to the hardware and the client's needs.

To validate Lusis' product, the client decided to execute a proof-of-concept project where TANGO was put into a realistic, high-TPS environment running on an HP NonStop Blade system with NonStop SQL as the central database. In this environment the behaviour of the solution and crucial parameters were examined.

## Hardware Configuration

The hardware configuration used at the time of the benchmark was chosen to match the clients production system and consisted of the NBC54000 platform running 8 blades with Intel's Itanium QuadCore processors. Each blade had 64 GB of RAM and disk CLIM with 50 mirrored SAS disks that were 300 GB each. In addition 4 Atalla HSMs were connected for PAN encryption. While the results of this benchmark are staggering for the industry, Lusis expects even greater results when testing on newer systems like HP's NBC56000.

## Proof-of-Concept Results

This proof of concept proved that TANGO was fault tolerant and achieved maximum volumes and throughput of a total daily volume of 50 million transactions per day. TANGO was tested for 48 hours straight simulated at full capacity. The system processed 2,500 TPS without fail. TANGO also proved responsive and surpassed normal daily tasks and nightly settlements.

## About TANGO

TANGO is today's modern payments system, using state-of-the-art technology to address business needs both now and in the foreseeable future. The core principles of TANGO's architecture provide the maximum flexibility regarding choice of platform, database and operating environment to suit hardware and software preferences. TANGO offers an integrated infrastructure that is highly scalable and efficient due to the genuine approach to service-oriented architecture (SOA), which significantly reduces development time and cost.

TANGO provides a modern, open SOA for acquiring, routing, switching, authenticating and authorizing transactions across multiple channels — including ATM, point of sale, Internet and mobile banking — in a multi-institution environment across different geographies.

TANGO's unique design removes complexities and reduces migration time frames. Off-the-shelf functionality and rapid development capability means that standard card types, international card schemes and devices, national switches, and hosts can be deployed easily, within the standard product.

## About Lusis Payments

Lusis Payments is a software and services provider to the global retail payments industry. The Company's proven, state-of-the-art technology operates on numerous hardware and operating environments, including HP NonStop™. This, combined with the know-how to mitigate risk and deliver high levels of assured customer service, delivers a unique proposition for organizations faced with the challenge of changing, refreshing or updating their retail payments systems.

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