



SETTING THE BENCHMARK

Availability Award winner NYCE processes 1.5 billion transactions a year on NonStop systems

NYCE HAS A LOT TO BE PROUD OF. Not only is it one of the largest regional electronic funds transfer (EFT) networks in the United States, but it also sets the benchmark for system availability in the EFT industry. In fact, the International HP NonStop Users Group (ITUG) voted NYCE the hands-down winner of its prestigious Availability Award at the 2003 ITUG Summit. (See “ITUG Availability Award” sidebar.)

“We give a lot of data center tours to our clients,” said Brian Mecca, director of data center operations at NYCE Corporation. “At the first place we stop, right when you come into the office, our ITUG award is hanging on the wall. That’s where we tell people about our overall system availability—from the HP desktops, HP Atalla network

security processors, HP ProLiant servers, and other vendor equipment, all the way up to our HP NonStop systems. It’s a highlight of our tour.”

NYCE achieves superior availability and management of its computing environment through rigorous problem and change management, quality assurance, and benchmark testing. “We apply this philosophy all the way down the line,” added Mecca. “We even do change control for PC upgrades in our command center; we use the same processes for simple, routine, mundane tasks as if we were replacing a CPU on the NonStop system.”

NYCE processes over 1.5 billion transactions a year, occasionally hitting peaks of more than 135 transactions per second. These are full monetary

transactions, consisting of many parts. A transaction begins from an ATM or retailer POS terminal where the consumer uses an NYCE card to request cash, the current balance, a funds transfer, or the purchase of goods or services; it is then routed to the appropriate financial institution to verify funding; finally, it is sent back through to the terminal initiation point. All these steps comprise a single transaction, even though the request traverses the switch multiple times.

According to Mecca, NYCE’s primary business goal is outstanding customer service. “We want to make sure that we’re always there for our customers,” he said. “When people go to an ATM, supermarket, or any type of retail store where they can use their NYCE debit cards,

they expect the cards to work. Customer service is paramount, and that's why system availability is so critical to us."

NETWORK AND EFT PLATFORMS

NYCE relies on two separate NonStop systems to handle its mission-critical online transaction processing (OLTP) applications. "We have our NYCE Network platform, which runs on an independent NonStop system node," explained Mecca. "This is our primary switch-to-switch system. Financial institutions, retailers, and independent ATM deployers that own and drive their own ATM/POS devices connect to it; in turn, it connects to other authorization endpoints. Third-party processors that drive terminals and manage card authorization systems for their clients also connect to our NYCE Network Switch."

Mecca continued, "Our other NonStop server is a data processing services platform known as the EFT platform. This system is used to provide data processing services to clients, including card authorization, card issuance management systems, offline debit, ATM terminal driving, and monitoring."

The NYCE Network node is an eight-processor NonStop S74000 server with 2 gigabytes of memory per CPU and 24 mirrored 8-gigabyte disk drives. The EFT processing platform consists of a six-processor NonStop S74000 server, also with

24 RAID-1 mirrored drives. High Availability Backup for the NYCE Network platform—a real-time vaulting system based on DRNet, which provides a near real-time copy of each and every transaction off-site and allows for a quick and complete recovery—is handled by a major disaster recovery provider. The EFT terminal driving system is backed up to magnetic tape, which is stored off-site for recovery at the same disaster recovery provider.

BEST SERVICE FOR BEST VALUE

If fail-safe system availability is NYCE's primary business challenge, a close second is the company's commitment to providing service for value. "People want good service, but they also want a competitive price," said Mecca. "We need to operate cost-effectively, and the NonStop systems help us do this. NonStop servers deliver excellent return on investment, because you don't have to invest heavily in third-party software to make the system run efficiently. What's more, we can manage our NonStop systems with a relatively small support staff. Overall, I consider the total cost of ownership for NonStop systems to be much lower than any other system would be, from a software, hardware, and maintenance standpoint."

NYCE leases its NonStop servers through HP Financial Services, an arrangement that Mecca has found quite satisfactory. "First of all, it's

ITUG AVAILABILITY AWARD

Winning the ITUG Availability Award brings immediate and tangible rewards, including a handsome trophy for display in the corporate lobby and a year's worth of bragging rights about a well-managed IT shop. More importantly, it demonstrates a sustained commitment to the use of best practices in minimizing system outages. The award is presented each year at the International HP NonStop Users Group (ITUG) Summit.

The ITUG Availability Award program offers other important benefits as well: ITUG members gain relevant and practical information when award winners elaborate on their methodology at the following year's Summit. And the NonStop Enterprise Division (NED) availability team gets a better view of life in the real world, through visibility into entrants' complete outage picture, rather than the subset of outages typically reported to HP support centers.

Consistent, accurate measurement provides a solid basis for improvement, and the ITUG Availability Award scrutinizes a broad range of measurements: outage minutes sustained, configuration and operational complexity, rate of configuration change, and quality of outage data. A detailed assessment of entrants' best practices also figures into the award criteria. NYCE Corporation and other winners of this prestigious award have good reason to be proud of their accomplishment.

Brian Mecca, NYCE, with ITUG Availability Award



"NYCE's vision is to be the best real-time payments company, and HP NonStop technology is a key ally in this effort."

Brian Mecca, director of data center operations, NYCE

one-stop shopping,” he explained. “HP Financial Services works very well with the rest of the HP sales organization, which gives us flexibility in financing the system creatively. Also, if we want to upgrade the system during the term of the lease, it’s much easier to work things out when the leasing company is owned by the same company that supplies the equipment.

“For example,” continued Mecca, “when we migrated from the NonStop K-series to S-series platform, we had around 25 different leases with

sales group also attends to address any issues, and provides periodic product development updates.”

NYCE systems run software from a number of key vendors. The company’s primary application for terminal driving and switching of monetary transactions is eFunds CONNEX, although it also runs ACI BASE24. PROGNOSIS is used for system monitoring, and ICE runs the IBM SNA protocol. With its Concourse-ESP settlement software, Baldwin Hackett & Meeks is a new solutions provider for Everlink (a joint venture in

the extra processes across the CPUs without any downtime, through online database changes.”

Down the road, Mecca sees potential for HP’s Zero Latency Enterprise (ZLE) architecture within NYCE’s data center. “To me, ZLE is a concept,” he stated. “The concept that HP is putting forward is: ‘Bring us a problem, and we’ll solve it.’ If you have 10 disparate databases in 10 different locations, and 100 different end users, HP can create a ZLE architecture to tie them all together in real time. When somebody updates one database, the other nine are automatically populated, and the updated information is immediately accessible across the enterprise.”

When it comes to capturing the overriding benefit of NonStop systems for NYCE, Brian Mecca waxes eloquent. “In the ever-changing and expanding world of electronic funds transfer, NYCE’s ability to be an Adaptive Enterprise is supported by our business relationship with HP and its scalable, indestructible NonStop computing technology,” he concluded. “NYCE’s vision is to be the best real-time payments company, and HP NonStop technology is a key ally in this effort.” ♦

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Brian Mecca, director of data center operations, NYCE

different lease-term expirations. We sat down with HP Financial Services and made all the leases co-terminus on one date, for a very reasonable rate. Basically, everything was rolled into a single lease, making it a pleasant buying experience.” As a captive leasing organization, HP Financial Services has an extensive understanding of HP’s equipment roadmap and market value; therefore, it can take a high residual position and provide customers with very favorable rates.

HP’s customer support and sales organizations comprise another important part of the solution. “The customer engineering folks are great,” Mecca commented. “They perform preventive maintenance once a month to make sure everything is going okay. If we have an issue and want them to come on-site, they’re always there for us. That includes NYCE’s monthly meetings to review the hardware reports and status for the past month. The HP

Canada between NYCE and Celero). Concourse-ESP takes a real-time feed and continuously processes the transactions into an SQL database, making it possible to view settlement positions throughout the day, as well as creating traditional end-of-day reports.

PLUG AND PLAY

Linear scalability is another critical NonStop system feature for NYCE. “In a single-node environment, the systems can scale up to 16 processors,” said Mecca. “With the NonStop S-series technology—and the fact that the CPUs are basically plug and play—you can go from a NonStop S74000 server to a NonStop S86000 server without replacing the infrastructure and enclosures. If we were to double or triple our volume tomorrow, for example, NYCE could just wheel in more CPUs and configure them online. The eFunds application would be able to balance

FOR NYCE, NONSTOP SYSTEMS:

Handle more than 1.5 billion transactions per year (peak of 135 transactions per second) with continuous availability

Deliver cost-effective operation and excellent return on investment due to low TCO

Manage transaction volume spikes with no downtime, thanks to online database management capabilities