EXECUTIVE SUMMARY

Customer Name
ING Romania

Industry
Financial Services

Location
Romania

Company Size
700 employees

Challenge

- Provide customers with seamless access to online bank applications
- Accommodate increase in traffic and create capacity for future expansion
- Improve security of banking data held on application and DNS server farms

Solution

- Pair of application control engines providing full redundancy
- Doubled system performance speed from 2 Gbps to 4 Gbps
- Efficient encryption speeds website performance and customer response times

Results

- Installation and migration completed in less than one month
- Improved customer service with fast, reliable access to key applications
- Enhanced banking data security and superior control of operational risks
- Prepared for migration to virtualized Internet banking services

Online Bank Secures Future Leadership

Innovative load-balancing appliance enables Romanian bank to speed up response times and offer new services.

Challenge

ING Romania, a subsidiary of the Netherlands-based ING banking group, has experienced rapid growth since launching its retail banking "Self'Bank" concept in 2004. Romania now has a network of 205 franchised ING branches, built on an innovative self-service banking model. Customers use in-branch terminals, with step-by-step onscreen guidance on paying bills, withdrawing cash, and making deposits or transfers. The bank then launched full Internet banking in 2007, attracting 30,000 customers in the first six months; after two years, that number had grown to 140,000.

It was vital to ensure that the bank's IT system would remain tuned to peak performance levels. Today, ING Romania's continued expansion depends crucially on being able to offer customers a seamless experience from the very first keystroke, whether they are accessing financial services over a Self Bank branch terminal, working online from a PC at home, or connecting on the office.

An essential factor in ensuring rapid, reliable access to banking applications by thousands of customers at once is the type of load-balancing technology deployed on the system. When ING first opened its doors to Romanian customers, it installed Cisco® CSS 11500 Series switches to perform that task, a dedicated offload solution that was more than adequate for the first few years.

As customer demand started to accelerate rapidly, the bank's IT staff began to investigate a different approach. They sought a solution that would not only continue to provide outstanding service to existing customers, but also have the capacity for continued growth and new services.

They needed a next-generation load-balancing technology that was simple and quick to install. The right solution would also offer new features, as well as the capability for future upgrades to web application firewalls (WAFs) and XML gateways, both highly effective ways of strengthening the bank's defenses against online attack.

"Thanks to the Cisco ACE solution we no longer have to arrange maintenance windows, since one machine can take over immediately while the other is being worked on. The result is better continuity of customer service."

– Dan Cocosila, ACE project team leader, ING Romania

Network Solution

The solution chosen by the bank was the Cisco ACE 4710 Application Control Engine, a member of the Cisco family of Data Center 3.0 solutions. It is a standalone application-delivery appliance that optimizes load-balancing and helps ensure business continuity by increasing application availability. It improves productivity by accelerating server and application performance, while helping to lower the operational costs associated with the provisioning and scaling of applications.

ING Romania has two data centers, linked by optical fiber, located some 10 kilometers apart in the Romanian capital, Bucharest. The bank installed a pair of Cisco ACE 4710 devices in its main data center, with load-balancing and failover, situated in a "demilitarized zone" between the Internet and the bank's servers.

The installation achieved an immediate acceleration in system performance from 2 Gbps to 4 Gbps. The solution supports a wide range of critical business processes, including sales, operations, front office, and back office, with built-in reporting capabilities. The appliances are now used on two pairs of servers, respectively supporting the full range of ING's Internet banking operations and the separately configured domain of the bank's marketing website.

The Cisco ACE 4710 solution has fulfilled ING's overriding strategic imperative to ensure that customer applications are available at all times, with ample scalability to manage sudden peaks in traffic. It provides greater stability and full redundancy, along with improved utilization of its application and DNS server farms. A further potential benefit of the Cisco ACE 4710 solution is the option to reduce data center power and cooling needs by moving to a virtualized data center architecture.

Cisco ACE 4710 supports a range of data center operations, including application switching and streamed media. The virtual partitioning technology in the switches segments and isolates applications, enabling them to act as individual modules on a single server. In this way, applications can be distributed across data center hardware, making more efficient use of computational resources.

The solution speeds website traffic and customer response times. The bank's Cisco ACE 4710 switches perform their routing tasks on the basis of a single byte of information in the message, instead of scanning a larger field in the address. Cisco ACE 4710 supports SSL (secure sockets layer) offload, freeing up server capacity and leaving the banks' transpose possessive application servers dedicated entirely to their primary functions.

Results

In 2008, ING's Romanian customer base grew by over 50 percent to 775,000, and first-half profits in 2009 were double those for the same period in 2008. The Cisco solution, installed in mid-2008, has handled this high rate of business growth comfortably. Already ranked regularly at first or second place in the published rankings of Romanian Internet banks, ING now aims to establish a consistent leadership position among the country's ten or so Internet banking service providers.

Dan Cocosila, the IT project team leader responsible for implementing the solution, which is based on a pair of Cisco ACE 4710 Application Control Engines, says the implementation was simple to carry out. It took less than a month, with ongoing support from Cisco Technical Assistance Center (TAC).

The Cisco ACE solution has improved continuity of customer service because there is no longer any need for predetermined maintenance windows. "Thanks to the Cisco ACE solution, we no longer have to arrange maintenance windows, since one machine can take over immediately while the other is being worked on," Cocosila says. "The result is better continuity of customer service."

The Cisco ACE solution has also made it easier and faster to launch new and more convenient services to customers. Although its Internet banking servers had full Secure Sockets Layer (SSL) protection from launch, the bank's marketing website did not. By implementing SSL on the Cisco ACE for the marketing website, ING has simplified the process of customer sign-up. "We've been able to create a new feature allowing customers to complete their personal details online directly from the marketing website," Cocosila says.

Cost control was not a key driver on ING's initial list of business priorities, but the Cisco ACE solution has been shown, in many other implementations, to reduce the ongoing cost of application infrastructure. And with virtualization, it can cut power and cooling costs by more than three-fourths. "Cisco ACE has delivered to us the latest generation of technology, and we're now fully prepared for the future," says Cocosila.

The Cisco ACE solution also offers an easy, license-based upgrade path that will allow the bank's IT staff to expand the system's capability even further whenever this may be required by further development of the business.

Next Steps

Security is a key concern for all banks, and ING Romania intends to make further use of ACE 4710's security features by adding other devices from the same family to provide WAF and XML gateways. ING Romania is also in a position to switch on the ACE 4710's virtualization features whenever needed. It plans to use some new servers for remote testing of a virtualized environment in its retail and wholesale banking and insurance operations.

Cisco ACE application switches are capable of improving application response times by 500 percent and speeding up new application deployments by 75 percent. Both features should help give ING Romania a continuing edge in an increasingly competitive Internet banking market.

Product List

- Cisco ACE 4710 Application Control Engine

For More Information

To learn more about Cisco, go to www.cisco.com/en/US/products/ps8361/index.html

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