

INTERAC PREPARES ITS NETWORK FOR THE FUTURE WITH JUNIPER NETWORKS SSG SERIES SECURE SERVICES GATEWAYS

Summary

Industry: Financial Services

Challenges: *Interac* was notified by its network service provider of the need to migrate its existing national Frame Relay-based offering to a modern IP-based broadband service for its Inter-Member Network. The challenge for *Interac* was to ensure that the current established performance standards were maintained or improved.

Selection Criteria: *Interac* and its member companies had to be certain the proposed MPLS solution would be able to match the security, reliability, and near-constant availability of its current system.

Network Solution: Juniper Networks SSG550M Secure Services Gateway

Results: The Juniper Networks SSG550M Secure Services Gateway, in conjunction with the MPLS networks, compared favorably with the existing Frame Relay system in reliability—while laying the foundation with a system that can enhance the functionality, flexibility, and security of network services.

Headquartered in Toronto, Canada, the Interac Association operates Canada's national debit network that allows Canadians to access their money through automated banking machines (ABMs) and point-of-sale terminals across Canada. The not-for-profit organization operates this network on behalf of its member companies—which include banks, trust companies, credit unions, caisses populaires, merchants, and technology- and payment-related companies.

Interac provides two main financial services: Shared Cash Dispensing (SCD), which enables Canadians to withdraw cash from an ever-expanding network of ABMs; and Interac Direct Payment (IDP), a nationwide debit service that allows Canadians to use their bank cards to pay for purchases at participating merchants. The Interac Association provides the infrastructure and support to maintain and operate both services.

When a cardholder initiates either an SCD or an IDP transaction, the information associated with that transaction is relayed to the cardholder's financial institution using the Interac Inter-Member Network (IMN). Interac Association integrates the various technology platforms at its member institutions with the IMN to ensure that each of the nearly 4 billion annual IDP transactions and 300 million annual SCD transactions are processed smoothly. In the 25 years since its founding, the Interac brand has become synonymous with trusted, secure, and reliable electronic payments.

Challenges

The health of Canada's economy depends in large part on Canadian consumers being able to access their money easily, reliably, and at a moment's notice. In this respect, the IMN is fundamentally a utility. Canadians expect the network to be operational nationwide every minute of every day.

To operate the IMN, 14 major financial institutions/service bureaus established redundant, direct connections to each other over Frame Relay connecting 23 sites. The rest of the association members connect to the IMN indirectly through one of these direct connectors. This distributed network architecture ensures that there is no single point of failure in the network, making it virtually impossible for the entire system to shut down at any given time.

Interac relies on multiple major service providers to build and maintain the IMN. For the past several years, the network service providers have delivered a highly reliable network for the IMN using Frame Relay running TCP/IP. When *Interac's* network service providers presented plans to upgrade to IP/MPLS, the move provided the association with the opportunity to position itself to provide additional products and services on a common network and to take advantage of the additional features provided.



The challenge? Ironically, the existing Frame Relay network provided an extremely stable and reliable network. The challenge was to ensure that the current established performance standards were maintained or improved. The critical nature of the payment application does not allow much room for risk. There are strict change management guidelines to be adhered to with the financial institutions and major service bureaus.

“Our solution had to be bulletproof.”

Chris Graham,
Director of IMN Operations, Interac Association

Selection Criteria

With a mandate of providing a highly available payment utility, Interac Association and its service providers held a series of review meetings with each of its members—which included operation, security, and networking personnel—to evaluate and gain their support for the ultimate deployment of a secure solution integrating MPLS routing, firewall, and VPN technology. The service providers were responsible for determining the technical solution—including the design, procurement, and build and installation at member sites.

“Our solution had to be bulletproof,” said Chris Graham, director of IMN Operations for Interac Association.

Solution

The first step for Interac Association and its service providers, therefore, was to develop a fundamental network design that paired an MPLS customer edge (CE) router with a network security device to secure each connection. Each data center in the distributed IMN had unique features that precluded the use of a one-size-fits-all implementation plan. Consequently, the migration team developed plans and methods of procedure that could be used to tailor its fundamental design to meet the specifications of each of the individual data centers.

Interac’s connection to the MPLS network was secured by Juniper Networks® SSG550M Secure Services Gateway in part because of its wide range of interfaces and configuration flexibility—qualities that enabled the migration team to effectively engineer the network connections in order to integrate seamlessly into each data center environment.

Another benefit of the Juniper solution was its robustness as a security platform. The SSG550M replicates the IPsec security previously provided on the IMN, while providing additional network resiliency along with greater security capabilities, such as unified threat management (UTM) and firewalling capabilities that member sites could utilize on a case-by-case basis.

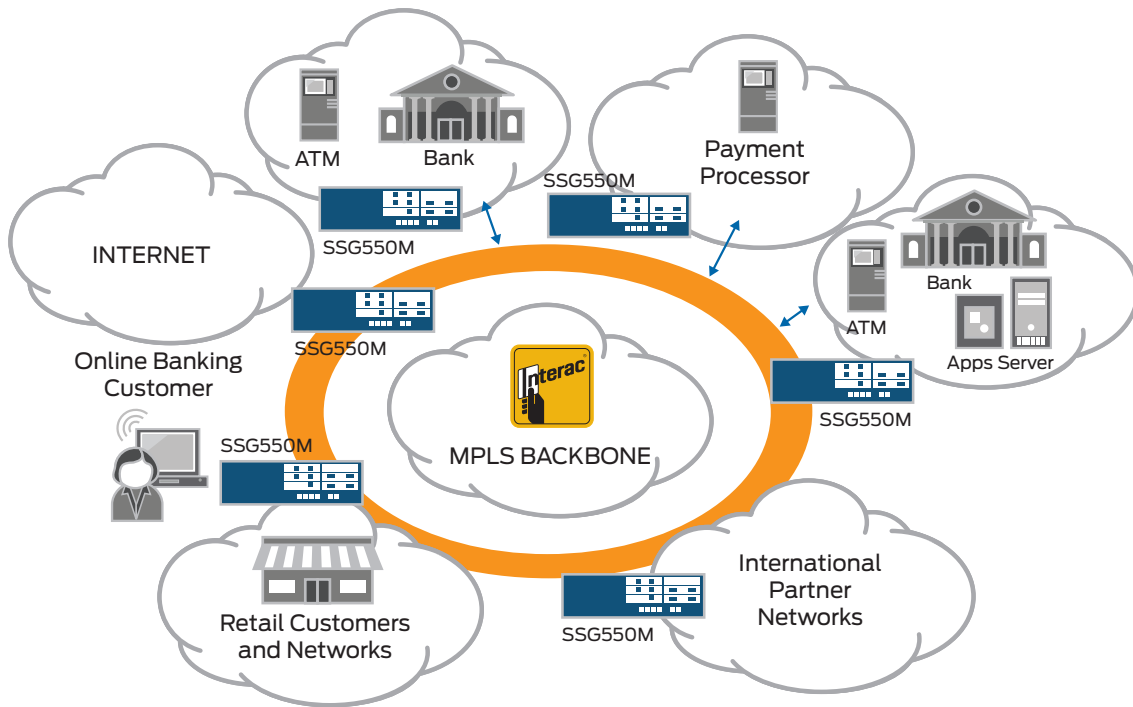


Figure 1: The new Interac network, based on the Juniper Networks SSG550M Secure Services Gateway

Results

Interac Association considers the migration to be a success because it was accomplished transparently to Canadian consumers, with the final site being converted at the beginning of February 2009. Although the migration was only 90 percent complete during the busy holiday season in December 2008, the system responded to the peak traffic without incident. Transactions completed over the new MPLS network were processed as smoothly and securely as those processed over the previous Frame Relay system.

"You want to make your network as reliable, secure, and flexible for your users as possible. Frame Relay has its restrictions and we look forward to taking advantage of the new tools that support trouble shooting, and segregation of services that MPLS will provide," said Graham.

Next Steps and Lessons Learned

The new MPLS infrastructure has positioned *Interac* to rapidly support both growth and future protection requirements. The Juniper solution permits *Interac* to scale up the number of members that maintain direct connections to its network, increase the number of daily transactions, and add new services to support the changing financial needs of the Canadian population. At the same time, the Juniper SSG550M gives *Interac* members the added benefit of being able to easily deploy additional firewall functionality, intrusion prevention, and other threat management techniques as needed to adapt to an ever shifting security landscape.

For More Information

To find out more about Juniper Networks products and solutions, visit www.juniper.net or the following:

www.juniper.net/us/en/products-services/security/ssg-series/
www.juniper.net/us/en/products-services/security/ssg-series/ssg550m/

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