Sonus Networks Case Study

International Communications Carrier Finds Shortcut to Savings with Sonus Least Cost Routing Solution

The Customer

This is the story of an international communications carrier that makes its money on the *down low*—that is, by keeping its costs *down* and its prices *low*. Their customers include other carriers, enterprises and everyday consumers who (like most of us) are looking to save money on international and domestic calls without sacrificing quality or reliability. It's a hard sell in a tough market most of the time, but this carrier has managed to turn their business into a profitable, global company with a distinctive brand by leveraging Voice over IP (VoIP) and other technologies to deliver high-quality, low-cost communications to its customers. Today, they offer a range of B2B and consumer services including international calling plans, landline services, wireless plans, calling cards and softphone services to customers in the US, Australia, Canada and around the world.

The Challenge

Carriers often function as middle men in the communications industry, using their network to connect calls between various service providers for a nominal fee that can be as low as a fraction of a penny per minute. In addition, carriers also rely on many partner networks to complete calls around the world, for which they in turn pay a per-minute charge. In order to maintain their profit margins, carriers frequently rely on a strategy known as least cost routing (LCR) to ensure that they choose the lowest-cost partners for each call. A carrier may have several local partner networks in every major country, for example, each of whom may offer a different per-minute price based on the time of day, location, quality of service and amount of business that the two companies do together.

On the surface, LCR would seem a simple matter of choosing the one partner network with the best combination of price and quality for every call to that country. But the combination of price and quality can be (and often is) different not only for each country but also for each call. Other variables that can affect price include time of day, type of call, duration, network traffic and the fluid nature of their partners' pricing plans, which can change weekly (and sometimes daily). Add it all up, and finding the lowest price can mean analyzing millions of database fields. Oh, and did we mention that this analysis all needs to be done in a matter of microseconds?

The Customer
An international communications carrier with a demanding clientele of service providers, enterprises and subscribers who want the best quality at the best price.

The Challenge
A Least Cost Routing (LCR) solution that was costing them too much money to scale up and too much time to load new pricing information.

The Solution
An integrated LCR solution from Sonus Networks that delivers faster load times, offers more features and can handle more traffic without adding more hardware.
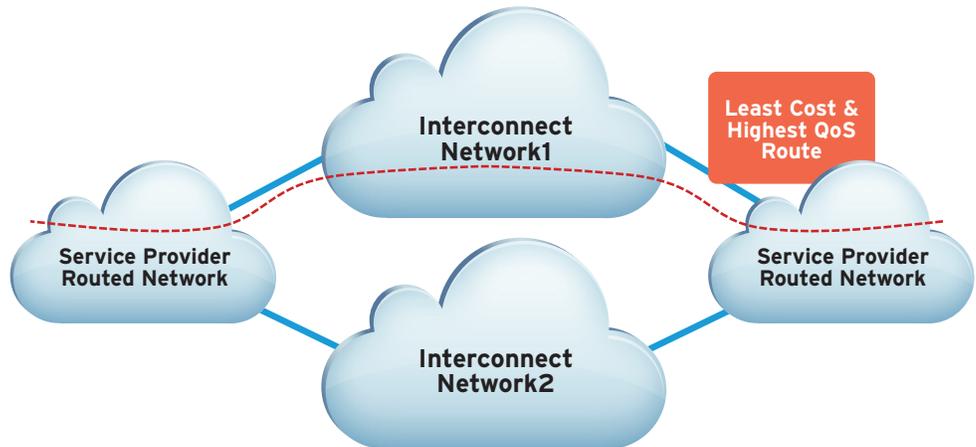
The Result
The carrier expects to save 15% in the first year alone through OPEX reduction, while improving performance, reducing hardware costs and taking advantage of new rate changes in near real time for the first time in its history.

The number of vendors that offer carrier-grade LCR solutions are few. Sonus Networks is one of them. This carrier, however, was using an LCR solution from another vendor. Initially, the solution may have cost them less money, but that was increasingly not the case as the carrier's business grew. The existing LCR solution simply didn't scale, reaching maximum capacity around 250 calls per second. It also required a separate LCR engine for each routing server or session border controller in the network, which placed the carrier in the uncomfortable position of having a non-carrier-grade LCR solution in the middle of every call flow. Before long, the carrier found themselves "boxed in" by an LCR solution that was not only costing them too much money in new hardware, but also costing them opportunities to capitalize on new rate savings because of the time it took to update and manage so many different LCR boxes.

The Answer

The international communications carrier decided it was time to look at an integrated LCR solution that could deliver better scalability and reliability. That search led them to Sonus Networks and the Least Cost Routing solution available on the Sonus PSX Centralized Policy and Routing Server platform. The Sonus LCR solution differs from many of the LCR solutions available in the market because it's built directly into the routing server as an application rather than as a standalone hardware device. As a result of its unique design, the Sonus LCR solution can leverage the centralized management and seamless scalability of the PSX platform without sacrificing performance or features. In fact, the Sonus LCR solution provides significantly more features than the carrier's previous LCR solution, including:

Sonus

- Faster loading of domestic and international rate sheets;
- Automatic and instant network-wide policy updates that flow from a single change to the master database, including currency conversions, blacklists and dial code rate changes;
- A wide variety of routing calculations based on lowest cost, volume commitments, quality of service (QoS), answer seizure ratio (ASR), silver/gold/platinum customer levels, profit margins and much more.

An ROI Opener

The Sonus LCR solution not only lowers the costs of more calls more quickly, but it will help the carrier reduce their operational costs by more than 15% in the first 12 months.

Least Cost & Highest QoS Route

Interconnect Network1

Interconnect Network2

Service Provider Routed Network

Service Provider Routed Network

Ultimately, the Sonus LCR feature that most interested the carrier was its unique ability to save time and money. Because of the PSX platform's centralized architecture, when a rate or route change is made to the master PSX server, it is also automatically and instantaneously applied to up to hundreds of "replica" PSX servers in the network. This not only saves hours of manual updates each time that rate and route information changes, but also ensures that information is correct and consistent throughout the network. In addition, the Sonus LCR solution is designed to automatically upload a wide variety of rate sheet formats, enabling the carrier to assess and take advantage of new rates minutes after they change rather than hours. And while the idea of shaving a few microseconds from a phone call may not seem very significant, the fact that the Sonus LCR solution resides on the PSX server eliminates millions of machine-to-machine hops, which ultimately improves network performance and allows the carrier to better monetize its network by handling more calls per day.

The Result

For this international carrier, choosing the Sonus LCR solution not only enables them to lower the costs of more calls more quickly, but will help reduce their operational costs by more than 15% in the first 12 months. Because the carrier already had Sonus PSX servers in its network, the migration to the new Sonus LCR solution was a quick and seamless process that allowed the carrier to make the transition without disrupting customer service. More importantly, the carrier won't have to pay the price for its success by constantly adding and managing new LCR boxes. Clearly, for a company on the grow, they made the right call with Sonus.

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