Creating Innovative, Less Costly Business Models

Customer Case Study

InTouch develops pioneering high-scale VPN service based on Cisco LISP solution

EXECUTIVE SUMMARY

Customer Name: InTouch NV

Industry: Service provider

Location: Netherlands

Challenge

- Drive average revenue per user and business growth
- Increase customer satisfaction, while reducing costs with a model that fits into the current 'pay as you go' structure
- Simplify infrastructure and provide easier integration of services, bridging technical infrastructure with front end usability

Solution

- New VPN architecture based on Cisco Locator/ID Separation Protocol (LISP) solution

Results

- VPN services can be delivered easier, cheaper, and faster
- Savings of at least 30 percent in capital expense and 50 percent in operating costs
- Customers receive greater return on investment; existing assets can be re-used to form a LISP platform
- Greater flexibility and adaptability to new and current services

Challenge

Based in Amsterdam in the Netherlands, InTouch is a provider of advanced information and communications (ICT) utility computing solutions to businesses throughout Europe. These solutions include voice, data, application and website hosting, and other managed services, which are delivered over the provider's VPN to over 10,000 users in seven different countries. Like most service providers, InTouch is strongly focused on driving growth and customer satisfaction, while reducing time and costs associated with delivering ICT services.

"Owning the last mile, the physical final link to the subscriber is no longer a key differentiator," says Rager Ossel, CEO for InTouch. "Our philosophy is very simple. We wanted to develop an 'over the top' delivery model that is more agile and less expensive to manage, but also allows customers to extract greater value from their existing IT assets and business processes."

To enable this business model, InTouch has built an Enterprise 2.0 platform that enables customers to use new-age tools, such as, blogs, wikis, and social networks, that motivate and encourage participants to contribute content and knowledge.

To complete this forward-looking strategy and make it commercially viable, both for itself and its clients, InTouch had once again to think creatively when it came to selecting a network architecture.

Conventional Internet protocol routing technology relies on routing tables to find IP addresses. This approach creates difficulties when those addresses need to be updated, or when the systems or applications move for any reason. With the rise of cloud services and the IPv6 protocol, end users are increasingly moving applications from one system to another or updating IP addresses. The proliferation of IP addresses makes the problem worse.

Against this backdrop, the provider decided to become an early adopter of Cisco Locator/ID Separation Protocol (LISP), a routing architecture that provides new semantics for IP addressing.

"We spotted a gap in the market," says Gioberto Balinge, project leader for InTouch. "Increasingly traditional service provider networks are becoming more capital intensive, difficult to scale, and time consuming to manage. With Cisco LISP, we were able to change the rules of the game. For the first time, we could offer services that are truly device and location independent."

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CEO
InTouch NV

Solution

Unlike conventional IP routing and addressing architecture that uses an IP address to express the endpoint identifier (EID) and routing locator (RLOC), Cisco® LISP takes a different approach by allowing these two pieces of information to be separated into two different numbering spaces. The RLOC is retained within the Internet default free zone, while the EID is stored within the LISP mapping system, minimizing the need for large routing tables and essentially automating the task of finding an IP address.

Importantly, LISP can be gradually introduced into an existing IP network without affecting the network endpoints or hosts. In most cases, minimal changes are only required to edge devices, with no impact to end systems or the network core.

This step change improvement is made possible by innovative software (compatible with Cisco IOS®, IOS-XE, NX-OS versions) that sits on Cisco Nexus® 7000 Series Switches, Cisco IOS ISR routers, and IOS-XE ASR1000 routers.

De-coupling EID and RLOC functions provides unique advantages for a number of use cases, including:

- Efficient multi-homing, for example for branch networks requiring site connectivity from multiple providers
- Faster IPv6 migration by helping ensure minimal infrastructure disruption and added configurations
- Global mobility and high-scale multitenant segregation
- Helping enable virtual machine mobility through the use of LISP and Cisco Overlay Transport Virtualization (both features are available on the Cisco Nexus 7000)
- Creating mobile nodes that allow user devices to retain their IP addresses and roam between domains (3G, 4G, and Wi-Fi) without having to constantly log on.

For Cisco, the collaboration built nicely on the LISP international beta network that has been running for four years and today connects over 130 sites in 25 countries. For InTouch, it provided the ideal opportunity to feed back real-life customer deployment issues from the front line.

"Having a direct line into Cisco's Business Unit and software development teams really helped to speed our LISP strategy from the lab to live production," says Balinge. "We were able to share knowledge and practical user experience. If something needed fixing, we pretty much did it on the spot."

Results

LISP has been well received within the marketplace. "LISP gives customers greater freedom to switch service provider and increased protection and interoperability of existing IT assets," says Ossel. "And it's around ten times cheaper than using standard Layer 2 interconnections. That huge cost advantage becomes even bigger when LISP is used within a shared multitenant environment."

Rather than replace or upgrade IT infrastructure, in most cases customers can simply reuse what they have to deploy IP projects more aggressively than before, or to manage bandwidth on demand. So, for customers facing IP addressing challenges, for example, from mobility or Bring Your Own Device projects, or future mergers and acquisitions, LISP could provide the perfect solution.

To illustrate the point, Ossel highlights a recent case where a LISP retail customer in the Netherlands de-risked and accelerated its expansion plans and brought 12 new stores online in less than a month. "The customer was able to reuse their existing Cisco hardware and connectivity to create a LISP platform," he says. "They experienced zero downtime during migration and now have a much better view of network assets and the services they pay for."

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In addition, customers benefit from added flexibility and independence of cloud service providers, a big advantage when planning data center projects, or transitioning to a cloud model.

InTouch has eliminated operational complexity. "Our core belief is that all high availability solutions should be Layer 3 based, which of course they are with LISP," says Job Snijders, systems engineer for InTouch. "Before, provisioning a Layer 2 VPN could take several months. Using the Cisco LISP control plane and common routing architecture, it is easier, cheaper, and quicker to deliver a VPN."

The business case for LISP becomes even more compelling when these productivity gains are added to balance sheet benefits. "Depending on customer location and availability of connectivity, we're already seeing reductions of at least 30 percent in capital expense and 50 percent in operating costs," says Ossel. "Maybe in the past, the question was why LISP? Now it's more a case of why not LISP?"

LISP is a Cisco innovation that is being promoted as an open standard. Cisco participates in standards bodies such as the IETF LISP Working Group to develop the LISP architecture.

For More Information

To find out more about Cisco LISP, go to www.cisco.com/go/lisp or lisp.cisco.com

Product List

Cisco LISP capabilities are currently supported on a range of Cisco IOS, NX-OS, and IOS-XR routing platforms through Early Deployment (ED) software releases and mainline releases. These routing platforms include:

- Cisco ISR 800, 1800, 1900, 2800, 2900, 3800, 3900 Series
- Cisco ASR 1000 Series
- Cisco Nexus 7000 Series
- Cisco ASR 9000 (Q4 CY2012)
- Cisco CRS Series (Q4 CY2012)

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