Randstad uses Cisco solutions to reduce operating costs for data and voice communications by 59 percent.

Challenge

Randstad Holding is headquartered in Diemen, Netherlands and specializes in solutions in the field of flexible work and human resources services. The services range from regular temporary staffing and permanent placements to in-house, professionals, search and selection, and human resources (HR) solutions.

The Randstad Group is one of the leading HR services providers in the world. The company’s German operations, Randstad Deutschland GmbH, wanted to reduce costs for data networking by moving from a carrier-managed Multiprotocol Label Switching (MPLS) network to self-managed IP WAN/VPN using commercial lines. As part of the project, it would terminate its contracts with telephone service providers and transition its branch offices to IP-based voice communications.

“At this time, telecommunications companies in Germany are charging high prices for business-class managed networks,” says Werner Schultheis, director of IT, Randstad Deutschland GmbH. “At the same time, the quality of commercial networks in Germany is improving. We saw an opportunity to reduce costs by using the public Internet to provide data and voice communications for 430 locations.”

The network had to be secure, and it had to be manageable, or return on investment (ROI) would be reduced. “We wanted a professional solution, easy to manage and based on open standards that we could customize and program,” says Schultheis. “We also needed a solution that was IPv6-ready, because German cable providers can't provide IP addresses in IPv4 anymore.”
“By using Cisco tools to manage and secure our own network over the Internet, we reduced operating costs for data and voice communications by 59 percent compared to using managed services and dedicated phone lines in Germany.”

— Werner Schultheis
Director of IT
Randstad Deutschland GmbH & Co. KG

Solution

Intelligent Networking and Unified Communications Solution

Randstad deployed an end-to-end Cisco® solution to support the new network, which it internally calls SpeedLink. With Cisco, Randstad Deutschland was able to use the Internet instead of expensive business lines, and at the same time realize the cost benefits of provider flexibility.

At Randstad’s data center, four Cisco ASA 5500 Series Adaptive Security Appliances provide secure, high-performance connectivity. Cisco ASR 1000 Series Aggregation Services Routers handle edge routing services, while Cisco Integrated Service Routers 800 and 890 Series route connectivity to the main office in Eschborn. At branches, Cisco Integrated Service Routers 2900 Series distribute bandwidth from redundant cable, DSL, and 4G / LTE uplinks. Management is simplified with Cisco Prime™ infrastructure, which provides lifecycle management, application visibility, security and policy monitoring, and troubleshooting capabilities.

“We chose Cisco for our network because of the breadth of solutions Cisco offers, as well as the manageability benefits,” says Schultheis. “Expertise with Cisco solutions is easy to find, and we knew we’d be able to manage it with a relatively small team.”

Randstad’s SpeedLink network uses Cisco Locator/ID Separation Protocol (LISP) to simplify routing operations. By separating a device’s endpoint identifier (EID) and its routing locator (RLOC) into two different numbering spaces, the LISP routing architecture optimizes IP routing for both IPv4 and IPv6 hosts. “Cisco LISP is an open standard that allows us to use short and simple configurations, reducing operational complexity and cost for our network,” says Schultheis.

The SpeedLink network uses Cisco Group Encrypted Transport VPN (GETVPN) to provide VPN service without tunnels. This approach enables direct communications between branches without requiring transport through a central hub, providing optimum bandwidth efficiency while securing communications. GETVPN also improves management flexibility by eliminating complex peer-to-peer key management with group encryption keys. “Cisco GETVPN gives us a strong encryption standard, and the tunnel-less architecture helps us maintain VPN connections even when there are packet losses on the Internet,” says Schultheis.

Randstad Deutschland also deployed Cisco Unified Communications Manager along with Cisco Unified IP Phones 7962 for enterprise-class IP telephony. Cisco Unified MobilityManager works with Cisco Unified Communications Manager to deliver services such as Cisco Mobile Connect for single-number reachability. “Cisco Mobile Connect is a great failsafe for us if there is an interruption in Internet service at a branch,” says Schultheis. “We can simply route calls to employees’ mobile phones, so customers can still reach us.”

To gather information on network performance at both ends of the network as well as at the IP layer, Randstad uses Cisco IOS IP service-level agreements (SLAs). Cisco SMARTnet® Service gives Randstad 24-hour access to experts in the Cisco Technical Assistance Center (TAC).
Results

With the SpeedLink network, Randstad achieved its cost reduction goals without sacrificing network performance. Six people manage the network, achieving nearly a level of reliability equivalent to the business-class MPLS network that Randstad Deutschland used previously.

“By using Cisco tools to manage and secure our own network over the Internet, we reduced operating costs for data and voice communications by 59 percent compared to using managed services and dedicated phone lines in Germany,” says Schultheis. “We expect to achieve complete return on investment (ROI) in the Cisco solution within 21 months of deployment.”

“Replacing phone lines with IP telephony using Cisco Unified Communications Manager and Cisco Unified IP Phones has expanded calling capacity at the branches and is scalable by increasing the bandwidth,” says Schultheis.

Next Steps

Randstad now has a scalable data and voice communications network in Germany, as well as a reference architecture for potential Internet-based WAN deployments in other locations. “If business-class telecommunications lines become more expensive in other markets Randstad serves around the world, we have a proven alternative,” says Schultheis. “Randstad can easily replicate the SpeedLink solution as necessary to manage costs.”

Randstad Deutschland is considering adding mobile devices to SpeedLink using LISP Mobile Node technology, which would allow each mobile node to behave as a LISP site with all the benefits of the LISP routing architecture. The company may also deploy Cisco IP Communicator, a softphone application, to allow branch employees to use their computer to make premium voice and video calls.

“Maintaining a competitive edge in IT is crucial in the staffing business,” says Schultheis. “Cisco gives us the tools we need to stay ahead.”

For More Information

To find out more about Cisco Intelligent WAN, please visit: www.cisco.com/go/.
To find out more about Cisco LISP, please visit: www.cisco.com/go/lisp.
To find out more about Unified Communications, please visit: www.cisco.com/go/uc.
To find out more about GETVPN, please visit: www.cisco.com/go/getvpn.
To find out more about ISR and ASR branch and edge routers, please visit: www.cisco.com/go/routers.