\Orchestrating a brighter world

NEC

SPIE Nederland

Customer

- SPIE Nederland

Industry

- UCaaS Voice Communications services

Challenge

- 24/7 UCaaS service to customers, with excellent voice quality and fast and efficient tracing and addressing of any network problems

Solution

- NEC UNIVERGE 3C and SIP@Net communications servers
- NEC UNIVERGE BX Session Border Controllers (SBCs)
- NEC OVOC (One Voice Operations Center)
- Connectivity and integration with various SIP trunk providers

Result

- High-quality, reliable UCaaS services
- Secure connectivity with any provider
- Central monitoring of the network
- Quick and efficient tracing of imperfections
- Demonstrable quality offered by the own network in the event of disputes with third parties
- Ability to quickly restore a backup

www.spie-nl.com

"Thanks to NEC's solutions, we are able to offer reliable and secure UCaaS solutions to our customers in the Medium and Large Enterprise segment. With the monitoring capabilities, any problems are quickly identified and resolved before they affect our customers. We are very satisfied with the functionality and quality of the NEC products."

Alex Annink, Unit Manager at SPIE ICT Solutions

Introduction

SPIE Nederland provides businesses with complete communications solutions, including cloud and hosted services. The Hosted Voice service offered by SPIE offers a fully managed Communication-as-a-Service via the Internet (VoIP) for fixed as well as mobile calls. The service offers efficiency, flexibility and a lot of functionality. An end user no longer needs to invest in his own telephone exchange and chooses the exact desired amount of fixed and mobile devices.

Through an extensive application suite, functionality can be added such as a Customer Contact Center, Unified Communications, Operator and Video Conferencing.

The SPIE data centre in Groningen supports both SPIE Nederland's own network and the UC-as-a-Service (UCaaS) offered to external customers.

Challenge

The UC as a Service (UCaaS) voice communication services that SPIE provides to its customers in the Netherlands - such as various municipalities, housing corporations and care institutions, as well as industrial customers - must be extremely reliable and guarantee uninterrupted service.

For an organization for juvenile psychiatric care with over 1000 employees for example, telephone availability of emergency numbers must be guaranteed 24 hours a day. Good speech quality is also very important. To this end, all data packets must pass through the network from end user to end user without any loss or delay.

With a network supporting thousands of SIP clients and several hundreds of simultaneous calls, the main challenge for SPIE was ensuring uninterrupted 24/7 UCaaS service to customers, with excellent voice quality, while being able to efficiently trace and address any network issues at lightning speed.

Solution

At the heart of the network reside NEC's UNIVERGE 3C and SIP@Net communications platforms. Session Border Controllers (SBC) are essential for good connectivity to and integration with various SIP trunk providers and to protect against any abuse from outside. To this end, SPIE has included two redundant NEC BX4000 SBCs in the data centre.

Another essential part of the network is OVOC (One Voice Operations Center), an intuitive, web-based network management application OVOC simplifies everyday management tasks and helps solve network problems, from implementation to upgrades and from detection to correction - including the SBCs and trunk lines provided by external service providers.

With OVOC, the "quality of experience" - how users experience the voice quality of conversations - can be monitored and any shortcomings analyzed.

With OVOC, the network quality can be checked and an indication given of the expected voice quality of calls. The "quality of experience" is monitored and any shortcomings in the network analyzed. An important point is that the content of the conversations is not registered, so privacy is not at stake here - in contrast to other methods of performing voice quality scans.

Result

Combining UNIVERGE 3C, BX and OVOC, provides SPIE Nederland with a modern and flexible communications platform with which the internal and external hosted UCaaS services can be supported in a high-quality and reliable manner.

Thanks to the BX Session Border Controllers, most trunk providers desired by the customer are easily connected. The SBCs are redundant, so that in the event of a failure in one, the other takes over seamlessly.

With OVOC, the network can be monitored from a central point, giving insight into the quality of connections, and revealing whether there is loss of data somewhere, whether there is a delay on lines, etc.

If a problem arises, OVOC can indicate exactly where it is (internal, external, which trunk), so that imperfections can be traced and resolved quickly and efficiently. This makes it easy to demonstrate the quality of one's own network to third parties, such as SIP trunk providers. This prevents disputes and with the data supplied, the provider can also solve the issue much faster. Also given the new privacy law, the General Data Protection Regulation (GDPR) OVOC is an ideal solution. Previously, detecting and analyzing loss of speech quality required an entire conversation to be listened to with a so-called wireshark - which does not benefit privacy. With OVOC this is not necessary and the time and place of the problem is immediately pinpointed.

A backup can also be restored from OVOC in a minimum of time, should an outage give cause to do so. Of course, such a fallback scenario is also of great importance during migrations, upgrades or extensions. If something does not go as expected, the old situation can also then be quickly activated.

Roll-out of new releases for the BX SBCs in a network can also be carried out with OVOC. SPIE is considering applying this functionality in the near future.

About

SPIE ICT Solutions is a Business Unit of SPIE Nederland. SPIE Nederland is a subsidiary of the SPIE Group, an independent European leader in multi-technical services in the fields of energy and communications. SPIE Nederland supports its customers in the design, implementation, operation and maintenance of network systems and energy, infrastructure, industrial and building installations. SPIE Nederland is one of the top 3 technical service providers in the Netherlands.

With more than 46,400 employees and a strong local presence, the SPIE Group generated sales of € 6.9 billion and EBITA of € 400 million in 2019.