

# Nikhef

Nikhef in Amsterdam is one of the world's leading laboratories for experimental particle physics, and as a technical-scientific institute it obviously has anything but a standard IT environment. When the time came to replace Nikhef's analogue phone system, the decision was made in favour of the pure IP-solution by innovaphone which could be perfectly integrated into the existing infrastructure.

## A non-standard IT environment

Terms such as antimatter, the most powerful particle accelerator on Earth or the Higgs boson are used on a daily basis at the National Institute for Subatomic Physics, in short called Nikhef. Nikhef is a partnership between the Foundation for Fundamental Research on Matter (FOM) and four universities: Radboud University of Nijmegen, University of Amsterdam, University of Utrecht and VU Amsterdam. The institute has about 250 employees and is located at the Science Park Amsterdam. At Nikhef, engineers and scientists work together to study the smallest building blocks of matter. The institute is, for instance, closely involved in the ATLAS experiment, one of the Large Hadron Collider (LHC) detectors at CERN in Geneva. The ATLAS detector is about as big as the Royal Palace on Dam Square in Amsterdam and came about through a collaboration of 3000 scientists around the world. It is capable of observing collisions produced by the LHC with high precision and at high speed. Nikhef employees have designed, built and tested different parts for the detector. The institute also contributed greatly to processing the enormous flow of data.

## Better integration

Exchanging information between the various research institutes is essential. In the late 80's, two CERN employees initiated

the World Wide Web project to facilitate this exchange. In 1992, this led to the first three (!) websites in the world: those of CERN, SLAC and Nikhef. It therefore goes without saying that high demands are made on the institute's IT environment. "We have a non-standard IT department with a lot of technical knowledge," Wim Heubers, Head of Nikhef's IT department explains. When the analogue telephone system reached end-of-life, the new solution to replace it had to be a perfect fit for this area. The choice was obvious. "We have chosen VoIP because a VoIP system is cheaper to maintain, has more functionality and allows better integration in the IT environment." Upon advice of the supplier WH2A, the decision was taken to install the IP solution by innovaphone." One of the strengths of the innovaphone system is the fact that it is a pure IP-based solution," Heubers continues. Unlike hybrid or software systems, the innovaphone solution is indeed a pure IP solution. The core of this solution is the unified hardware and software platform on which the entire product range is based. The independent hardware renders a server obsolete. The software is based on a specially developed operating system that is extremely lean and fast, without unnecessary features.

The innovaphone solution at Nikhef is built around two IP6000 gateways, with a total of 200 registered telephones, type IP110 and IP230. Both innovaphone devices can easily make use of all PBX features, from call transfer, call waiting and searching in the call list or phonebook to conferences with multiple partners. The mobility within the company is assured with the deployment of 80 wireless devices. These are connected to the IP system through IP DECT gateways, that also serve as the base for terminals, enabling employees with wireless devices to use all the functions of the PBX. In addition, a couple of IP28 analogue adapters are used to integrate analogue devices, such as fax modems and intercoms into the IP system. The receptionists work with the innovaphone PBX Operator, a computer-based operator desk for the innovaphone PBX. This Windows

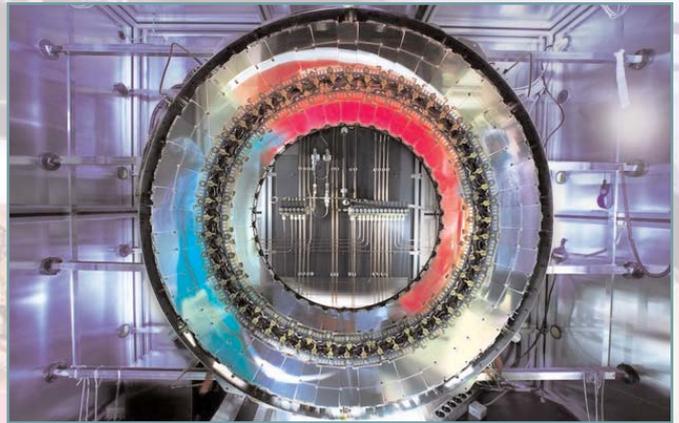


innovaphone

PURE IP-COMMUNICATIONS



innovaphone AG  
Böblinger Straße 76 | 71065 Sindelfingen  
Tel. + 49 7031 73009 0 | Fax + 49 7031-73009 99  
www.innovaphone.com | e-mail: info@innovaphone.com  
Copyright © 2000-2012 innovaphone AG 2012  
Errors and omissions excepted.



application, for which no server is required, has an intuitive control panel, and can easily and comfortably be operated via mouse click or keyboard. The main fields show a clear overview of all incoming, outgoing and parked calls, as well as the presence status of all participants. Furthermore, the innovaphone Operator at Nikhef is linked to the user administration (LDAP), enabling easy searches.

#### Smooth transition

With the transition to VoIP, the administration of the telephone system was also transferred from Nikhef's Facilities department to the IT department. Deployment took place in cooperation with WH2A, and went smoothly - a silent transition, as Heubers calls it. "We have received very little feedback, which we consider to be positive." The innovaphone products are well accepted in daily use, especially the innovaphone PBX Operator. "The receptionists have quickly become accustomed to the easy user interface."

**innovaphone**

PURE IP-COMMUNICATIONS



innovaphone AG  
Böblinger Straße 76 | 71065 Sindelfingen  
Tel. + 49 7031 73009 0 | Fax + 49 7031-73009 99  
www.innovaphone.com | e-mail: info@innovaphone.com  
Copyright © 2000-2012 innovaphone AG 2012  
Errors and omissions excepted.