

# Novo Nordisk

## IP telephony with an eye to flexibility and European standardisation



“WITH THE EXTENSION AND ADAPTATION OF OUR NETWORK WE ARE STRIVING PRIMARILY FOR STANDARDISATION AND FLEXIBILITY. OUR SUPPORT HAS TO BE ABLE TO ANTICIPATE THE DYNAMICS OF THE COMPANY.”

Dirk Foubert, *ICT Manager Europe at Novo Nordisk*

The Danish company **Novo NORDISK** is a world leader in the field of insulin and diabetes treatment. The company also brings other pharmaceutical products to market and is besides the most important producer of industrial enzymes. Worldwide Novo Nordisk has over 16,000 staff members, spread over 68 countries. The products are commercialised in 179 countries, with Europe being the biggest sales market. Novo Nordisk has branches in 23 European countries and it is especially its activities here that are maintaining the sales and growth of the company. Novo Nordisk is also looking beyond Europe's borders. The number of diabetes patients is after all increasing dramatically all over the world and there are few companies providing the specialised products that are needed.

### Link between European branches through VPN

The European headquarters of Novo Nordisk are situated in Brussels. The 36 staff members working there are mainly involved in the strategic sector. It is here, for example, that the launch of new products is prepared. With regards to ICT, all the European branches of Novo Nordisk are being prepared for the future. As ICT Manager Europe, Dirk Foubert is coordinating the local IT managers in the task of streamlining the network

### EXECUTIVE SUMMARY

#### Background

The Danish company Novo Nordisk is a world leader in the field of insulin and diabetes treatment. Worldwide the company has over 16,000 employees spread over 68 countries. In Europe Novo Nordisk is active in 23 countries. The European headquarters of Novo Nordisk are situated in Brussels and operate mainly at the strategic level. As ICT Manager Europe, Dirk Foubert is guiding the European IT managers in the task of streamlining the network infrastructure, its management and the numerous applications that run on it.

#### Challenge

Novo Nordisk needed to add a number of functions to its telephone system and it looked as if they would be difficult to obtain. So the company started to look for an alternative, while keeping in mind its goal of standardisation at a European level. The new telephone system also had to anticipate the internal needs for mobility and flexibility.

#### Solution

A Cisco CallManager 3.1 telephone server was installed in the Brussels office. This serves 30 Cisco 7960 and 10 7940 IP telephone sets. Moreover, a separate server for unified messaging (integrated fax, voice mail and e-mail traffic), which runs the application Cisco Unity 2.46, was put in place.

#### Results

Novo Nordisk now has an open, scalable telephone system with numerous functions. As soon as the VPN is ready, it will be easy to extend the system to other European offices. Moreover, it is managed centrally and by IT staff. The end users have a versatile telephone and can call up their personal settings through the network on any IP telephone.



infrastructure, its management and the numerous applications that run on it. With the extension and adaptation of the network, Dirk Foubert and his colleagues are in particular striving for standardisation and flexibility. The ICT support has to be able to anticipate the dynamics of the company.

Novo Nordisk is currently working on a Virtual Private Network (VPN) between the European branches. A VPN is a protected part of the public communications or Internet infrastructure. By means of encryption and other security mechanisms, it is protected against unauthorised access or interception of data. To build up a powerful VPN that can also deal with voice and video, Novo Nordisk is negotiating about service level agreements (SLAs) with its service providers. Moreover, the network components that will form part of the VPN are also being improved. The last step is adapting the applications so that they can be used as efficiently as possible.

Anticipating the standardisation projects, Cisco and integrator Dimension Data implemented an IP telephone system in the European headquarters in 2001. The data and telephone traffic no longer run through two separate networks but through a common IP backbone. To test the possibilities of voice-over-IP and IP videoconferencing (IPVC), Novo Nordisk also set up a pilot network between the Brussels office and the branch in France.

### **Reliable, progressive, omnipresent**

Novo Nordisk had been unhappy with its conventional telephone exchange for some time. “We wanted additional functions and these turned out to be exceptionally difficult to obtain. Since we were working on our European standardisation anyway, we started to test IP telephony. Telephoning over the computer network not only offers new possibilities; it also simplifies matters a lot. Connectivity, interoperability, compatibility and content are the four pillars on which we build our IT strategy. Thus we are in favour of a converged network that can handle data, voice and video. So the move towards IP telephony was logical.”

The European perspective also played a role in the decision to use Cisco. “Besides the reliability of the products, it is important – with regard to standardisation – that we can approach a supplier that is represented worldwide. Moreover, Cisco offers an advanced technology that can deal with new developments and products. In this way you develop a forward-oriented network,” explains Dirk Foubert.

### **Investing with an eye to the future**

A CallManager 3.1, Cisco’s IP PBX exchange, was installed in the Brussels office. This exchange can, in principle, deal with up to

2,500 telephone sets at as many sites and so is well equipped for expansion. For the moment, the CallManager is supporting 30 Cisco 7960 and 10 Cisco 7940 IP telephone sets. Besides this, a separate server for unified messaging was installed. With Cisco Unity 2.46 unified messaging employees can manage e-mail, voice mail and faxes through a single inbox from any appliance (IP telephone, mobile phone, PC) or location. “We didn’t just get a new in-house telephone system, but also hardware whose applications have a lot of added value. Moreover, it will be simple to scale up the system to the other European offices as soon as the VPN is ready.”

According to Dirk Foubert, the IP telephone sets offer interesting possibilities: “Not only can you easily personalise the sets – they also offer a package of extra features, for example for setting up a telephone conference or a type of voice chatbox. Conventional telephony offers some of these things as well, but you have to pay for them separately. Here the functions are simply present in the telephone.”

You can also save a lot on the telephone bill, especially when a company connects several offices through a VPN. As the internal calls no longer run through the standard telephone network they are free. If the offices are based in different countries, then staff members can call into the foreign public network through the VPN, so making an international call at the local tariff abroad.

### **System under own management**

IP telephony not only offers a cost-saving, scalable and open system with numerous applications. The management of the installation also happens internally. Dirk Foubert: “Our technical business analyst has the maintenance, support and management in his own hands. We no longer depend on a telephony supplier for adaptations or extensions. If we roll out this telephony system to other offices, it will become easy to implement applications at a European level. This can indeed happen centrally, so that everyone who is connected through the VPN immediately has access to the same services.

Bart Eyer, Technical Business Analyst at Novo Nordisk confirms that the management of the system offers no problems. On the contrary: “Everything is web-based – so you can adjust everything through the network from anywhere. In principle, I don’t even have to be in the office to provide a new user with a telephone connection for example. In the past you had to rely on a telephony supplier for such things.”

Dirk Foubert adds: “When we roll out the system on a large scale, we will also be eliminating some risk factors. If the technology is



the same everywhere, then you no longer depend on a single person. If an IT manager is unavailable when a problem or question arises, then you can just as easily call on another one. After all, everyone works with the same system and can if necessary perform tasks from a distance through the Internet. So we would like to implement such a 'distributed administration'. Setting up a new small office ready for use in Switzerland, for example, then becomes very simple. You put in place a router, a switch, a few IP telephones and you arrange for a VPN connection. The rest of the management happens through the Internet."

The management from a distance also fits in with Novo Nordisk's ambition to group servers and applications that run on it at so-called 'collocated sites' as much as is possible. Dirk Foubert: "The computer equipment is brought together at a location close to the backbone. There, applications and services can be centrally implemented for different offices. In this way the numerous moves and reorganisations within the company have much less of an impact on our ICT set-up."

#### Telephone software and training

Moving, reorganising, mobility and flexibility are indeed very important for all staff members of Novo Nordisk. Dirk Foubert: "We are a very dynamic company and strive to allow our people to work comfortably everywhere. When I am visiting one of our foreign branches, I want the same interface there as in our Brussels office. Then I don't have to find out how the telephone works before I can really get to work. Thanks to the IP telephony system this is becoming possible. Also, forwarding a call is easy. You simply type in your user name and password into the appliance and all calls to your number end up there, even when you are abroad. You also have available all the functions and numbers that you normally use." Bart Eyer adds: "We experienced this

convenience during our latest move. In the past everything had to be patched. Now the telephone sets go into the box and are simply plugged into the network again at the new location."

Novo Nordisk is also thoroughly testing Cisco's Softphone, an application that places telephone functions on your computer screen. Dirk Foubert: "In this way, laptop users always have their telephone sets with them. They can access the VPN anywhere, they can receive calls made to their personal number as well as use their usual databases and functions. The Softphone software offers many more possibilities. You can share a lot of information by using the 'collaboration' button. If you are preparing a presentation with a colleague over the phone, for example, then you can also show him or her documents and files."

The transition to a new system took around six months. "If you start with a completely new installation, then setting up IP telephony is very simple. For the transition from conventional telephony to IP telephony, my advice is to move forward gradually and to plan carefully. Don't burn your boats straightaway as regards your previous supplier. You need him for the transition. It is also best to choose an integration partner who has had sufficient experience. A longer transition period has the advantage that the end users have more time to get used to the new system. A good users' training programme is also advisable; after all the appliances offer so many more possibilities than a conventional telephone," concludes Dirk Foubert.



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