



Netherlands Institute for Neuroscience (NIN) offers students stable and flexible workstations with Horizon (with View)

CHALLENGE

The Netherlands Institute for Neuroscience wanted to set up a special work area for the variable student population. In addition to stability and access to the right features, the workplace also had to be easy to manage centrally. The institution also wanted to be able to optimise further its fallback ability in case of disaster, for an improved ability to secure research continuity.

SOLUTION

Desktop virtualization based on Horizon (with View) and disaster recovery based on Site Recovery Manager (SRM).

RESULTS

Desktop virtualization based on Horizon (with View) offers students who are working temporarily at the institution a stable and flexible workstation. They have access to complete functionality for data analysis, research and producing reports. At the same time the environment can easily be managed centrally using an image, so that installation and updates are rolled out centrally. Automatic replication of servers using Site Recovery Manager (SRM) also offers the institution easy and reliable contingency fallback. In the case of disaster, research can quickly be resumed from different locations.

The Netherlands Institute for Neuroscience, part of the Royal Netherlands Academy of Arts and Sciences, performs fundamental neuroscientific research, concentrating on the brain and the visual system. The institute enjoys a leading international reputation. A committee of international experts recently expressed its appreciation for the quality of the research programme and the efficient organisation. This also applies to the way in which the institution has been able to hold onto young and talented researchers over the years. Students also contribute to this. A special workroom has been set up in order to optimize support of this group. The flexible workstations are based on VMware Horizon (with View).

The IT landscape which supports the institute's research groups comprises a varied mix of systems. Alongside normal workstations, there are also more powerful ones for specific research projects, analysis and statistics. "In 2000 we were among the very first users of VMware Workstation," notes Adriaan Klop, IT Manager at the Netherlands Institute for Neuroscience. "Then in 2007 we took the logical step towards server virtualization. It made sense to virtualize all the servers with VMware. This offers us the flexibility for new initiatives and research, to get a specific environment up and running very quickly. We can set up, test and make a new environment available rapidly. At the other end of the scale, dismantling an environment is also not a problem, and we can then deploy that capacity again afresh."

Complete functionality

Alongside regular staff and research groups, a large number of students also work at the Netherlands Institute for Neuroscience. There they are continuing part of their study programme. Klop: "In the past they would be given a desk and PC in the rooms of the researchers for whom they worked. However the rapid growth of the institute in recent years created a shortage of space. This was the reason the library was set up as a working area for students. We wanted to offer this changing group of users a stable and flexible workplace. This meant fast access to complete functionality for data analysis, research and producing reports. Alongside ease of use, the environment also had to be flexible enough to support

students to the fullest at any moment of the day. Many students only work for the Institute for Neuroscience for three months, after which a new batch moves in." Because the institute's IT landscape was already fairly varied, Klop wanted the new area to be managed centrally with ease. "We work with a compact IT department, and extra complexity and management activities would not be desirable."

Working remotely

After a market orientation it appeared that desktop virtualization based on Horizon (with View) fulfilled all the requirements the Institute for Neuroscience imposed on the new student workstations. "We now offer

VMWARE CASE STUDY

“We now offer students 40 complete workstations they may freely use. Managing them has been set up centrally based on one image. So we can implement changes and updates quickly, and remotely”

Adriaan Klop, IT Manager at the Netherlands Institute for Neuroscience

VMWARE IN PRACTICE

- VMware vSphere with vCenter Site Recovery Manager (SRM)
- VMware Horizon (with View)
- VMware vMotion
- VMware DRS

ROLL-OUT ENVIRONMENT

- 4x IBM X3550 Server
- NetApp FAS2240-2
- Dell (Wyse) thin clients

VIRTUALISED APPLICATIONS INCLUDE

- MS Office applications
- IBM SPSS
- Adobe Creative Suite 6

students 40 complete workstations they may freely use. Managing them has been set up centrally based on one image. So we can implement changes and updates quickly, and remotely. The desktops are also ‘non-persistent’. When a user logs out, he or she saves the data in the right place in our network, and the desktop is removed. Whoever then logs in on the same machine next, gets a clean desktop. This is how we prevent pollution and potential problems.” With its complete log-in environment Horizon (with View) is set up efficiently and is integrated with the existing environment. “An additional advantage of having chosen Horizon (with View) is that we can now also offer our own researchers the ability to access their data and applications remotely. Previously there was no provision for this, but the options can be offered in a secure and practical manner with Horizon. Users launch a View client on a dongle. This gives them access to their personal desktop with their own tools and apps.”

Disaster recovery

Choosing virtualization also offers the Institute for Neuroscience benefits in terms of continuity. “Automatic backups are made of all virtual machines within the environment, using agents. However in case of disaster it’s fairly time-consuming to set up new servers with the correct backups. The combination of replication via VMware vSphere and Site Recovery Manager (SRM) appears to be a practical solution to achieve fallback disaster recovery ability. All servers are replicated automatically to an external datacentre. Should there be problems, not only can we get up and running again quickly using SRM, but this can also be achieved from different locations. Thus we can divert easily and quickly, so that all research can continue with minimum disruption.” Klop believes a stable and flexible IT environment is a basic requirement for effective neurological research. “So we are constantly on the lookout for ways to support the research and our staff efficiently in this respect. Naturally at the same time we want to keep the environment manageable, with easy management. The technology of VMware lets us achieve this with a compact IT department.”

