

Bringing the world to the sensory impaired



Powerful residential and institutional networks from Nexans help youngsters with vision, hearing or speech disabilities excel at daily activities
Netherlands-based Kentalis merges residential and educational networks at its 180 locations into a single digital WAN. Twisted-pair lines in homes or workspaces supported by fibre-based backbones provide powerful networks that help youngsters with sensory or communication impairments connect with the world.

Nexans helps unify multiple networks to bring learning and care in the simplest way to the sensory impaired.



Royal Dutch Kentalis is a nationwide healthcare organisation providing diagnostic, care and scholastic services to young people with hearing or communication difficulties. It's the result of a 1994 merger between three different institutions: Viataal (formerly IvD), Koninklijke Effatha Guyot Groep, and Sint Marie. The post-merger organization includes 180 different locations throughout the country totaling 250 buildings. With 17 schools and many residential sites spread over hundreds of kilometers, it is clear that Local Area Networks (LANs) are an important communication tool, allowing efficient and fast links with the server farm at the company's location in Sint-Michielsgestel in the south of the Netherlands.

UNIFYING A PATCHWORK NETWORK

Following the merger, it was realized each entity's LAN was composed of different cabling types and concepts from diverse vendors. It therefore became critical to unify and streamline the combined network whilst ensuring bandwidth and connectivity to the organization's 4,500 employees and 6,000 pupils. Kentalis Team Manager of ICT, Nord van den Aakster, has modernized the patchwork network: "In telephony, we removed all QUAD cables at our locations and integrated voice services on our LANmark category 6A cables. We want all our communications supported by a single, unified structured cabling network and look to Nexans to support us in this."

"In its current 45,000 m2 new building site, we integrated a LANmark-OF OM3 fibre network with a LANmark-6A copper solution connecting each residential room to the site's network. In all, 7,000 LANmark-6A double outlets and fibre connections are ensuring occupants' access to national television, radio and broadband services," says Henk Smits, General Manager at HTC International. He

has been working with Nexans for some 20 odd years, and has witnessed many cabling advances over time. "Today, the quality of the Nexans cabling solution is such that it exceeds by far the bandwidth capacity of the active network components, which means the need for fibre in the home is steadily pushed back. 10 Gigabits per second to the workspace via Cat.6A copper twisted pair cables and 40G on the fibre backbone is possible today."

Still, for future real estate projects in Amsterdam and Zoetermeer, Kentalis is considering a mix of LANmark-6A cable for residential connectivity and LANmark-7A for educational purposes. Says Nord van den Aakster:

"With PoE, we can run cable to less accessible locations where no standard electric outlet exists to power devices."

Nord van den Aakster
Kentalis Team Manager, ICT

"Kentalis develops specialized knowledge and makes it available to its staff and other professionals through training, publications, lectures, conferences and a website. We also work closely with national and international partners in developing technological applications for education, therapy, care and support services. Our students use multimedia-driven educational training solutions mostly through laptops and desktops where the visual element is extremely important. And with more than a hundred sites over the country, videoconferencing is rapidly gaining importance. In our tenders, we always define our requirements in terms of Nexans performance."

Challenges

- Merger of three separate organisations results in patchwork network
- Need to provide voice, video and broadband on single WAN/LAN platform
- Residential as well as educational environments

Solutions

- LANmark-6A shielded cabling system with RJ45 connectivity
- LANmark-7A shielded cables
- LANmark-OF OM3 optical fibre cabling with SC connectivity

Benefits

- Offers cost-effective, copper-based support of latest digital devices
- Fast connections between campus buildings with fiber optics systems
- Exceeds bandwidth needs for foreseeable future
- Unified platform efficiently links 180 locations nationwide

PoE SAVES ENERGY AND INSTALLATION COSTS

All new applications have to be Power over Ethernet (PoE) enabled. "We want the right network software to manage the on/off control of these devices, such as remote cameras, fixed telephones, or wifi access points", says Nord van den Aakster. "Reducing energy consumption is

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Nord van den Aakster
Kentalis Team Manager, ICT

key, but PoE also brings considerable benefits in ease of installation and costs. We can now run a S/FTP cable to less accessible locations where no standard electric outlet exists and still power devices. It also allows us to manage UPS backup battery devices centrally."

Kentalis is rapidly upgrading its extensive real estate. The right cabling solution is cost-effective and future-oriented. "As a healthcare organization, we have to be aware of cost-cutting requirements. The right choice of cable network is crucial. We see a surge of wireless applications, but we are also sure that cable networks will continue to define the flexibility of our residential and educational activities. Our locations will all rely on a fiber-based LAN in a ring structure between buildings and high performance, LANmark-6A or LANmark-7A S/FTP solutions in homes or to the workspace. This will prepare us for an all-digital future."

Did you know...

- The name "Kentalis" is a contraction of the Dutch words for "knowledge" and "language"
- The Kentalis International Foundation shares knowledge with professionals in developing countries so they can provide access to language, communication and information
- www.kentalis.com for more information about Kentalis



With energy as the basis of its development, Nexans, worldwide leading expert in the cable industry, offers an extensive range of cables and cabling systems. The Group is a global player in the infrastructure, industry, building and Local Area Network markets. Nexans addresses a series of market segments: from energy, transport and telecom networks to shipbuilding, oil and gas, nuclear power, automotives, electronics, aeronautics, material handling and automation.

Nexans is a responsible industrial company that regards sustainable development as integral to its global and operational strategy. Continuous innovation in products, solutions and services, employee development and engagement, and the introduction of safe industrial processes with limited environmental impact are among the key initiatives that place Nexans at the core of a sustainable future.

With an industrial presence in 40 countries and commercial activities worldwide, Nexans employs 23,700 people and had sales in 2010 of more than 6 billion euros. Nexans is listed on NYSE Euronext Paris, compartment A. For more information, please consult www.nexans.com or <http://www.nexans.mobi>

In the field of LAN Cabling Systems, Nexans Cabling Solutions offer a complete range of products and value added services providing improved reliability and reduced cost of ownership for Network Managers, together with faster installation times for installers.

In addition to LANmark brand cabling systems, Nexans also specialises in LANsense Intelligent Infrastructure Management (IIM) products including Environmental Monitoring and Access Control (EMAC) devices. Nexans offers an unrivalled choice of LAN infrastructure solutions to a global customer based through an extensive network of regional offices and Key Account Management team.



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