

# NORDUnet

Nordic Infrastructure for Research & Education

Press release

## **NORDUnet's high-speed, eco-sustainable research network offers 40 Gbit/s speeds playing a central role for Nordic universities**

*The network upgrade provides 4-time higher speed and prepares for 100 Gbit/s transformation*

**Copenhagen, Denmark – September 16<sup>th</sup> 2009** - Alcatel-Lucent and IPNETT has completed the 40 Gbit/s upgrade of the first link of NORDUnet's optical and IP transport network, which provides the Nordic infrastructure for research and education. Preparing the move to 100 Gbit/s, this network upgrade will further support new application enablement for universities and scientists in the Nordics and strengthen international collaborative environment. The new 40 Gbit/s per channel technology utilises the existing network capabilities that allow for up to 96 parallel channels on a single fiber pair.

NORDUnet is a joint collaboration among the five Nordic National Research and Education Networks in Denmark (Forskningsnettet), Finland (Funet), Iceland (RHnet), Norway (Uninett) and Sweden (SUNET). This ambitious cooperation has enabled universities and scientists in the Nordics to participate on equal terms in major international research projects with their pairs in Europe, the United States and Japan. For instance, scientists at the Niels Bohr Institute in Copenhagen, Denmark, are now ready to receive huge amounts of data from Switzerland's CERN experiments.

[“Since the first phase of the NorthernLight optical network in 2007](#), scientists in the Nordics enhanced their possibilities to participate in and lead major European research projects. The upgrade of the NORDUnet backbone places the Nordic university and research environment in the world league,” said René Buch, CEO at NORDUnet.

Scientists are often working cross border making high speed connectivity essential for participation in international projects. NORDUnet is a state-of-the-art core network that sets new standards for capacity, efficiency and automation enabling the scientists to focus on more research and less on its operation. This allows scientists and students to participate in courses and research activities in universities across the region by accessing data at home.

“The NORDUnet upgrade enables scientists to exchange data and connect research equipment across the world without making expenses for data transportation a burden for research projects. Scientists will typically have a dedicated connection at their disposal for a period for free because sparse finances should not be an obstacle for high speed data transportation,” said Hans Wallberg, CEO at SUNET, the Swedish research network organization.

The NORDUnet high-speed network is connected to the rest of the world making it attractive to position the Nordic as a sustainable place for data storage for the world's largest suppliers of data services.

“Iceland, Norway, Sweden and Finland produce huge amounts of sustainable power from hydroelectric plants and thermal energy and will be able to meet the increasing need for CO<sub>2</sub> neutral power for

servers. Alcatel-Lucent's eco-sustainable optical equipment will help NORDUnet pave the way for sustainably transporting the huge amounts of data to and from the Nordic," stated René Buch.

"Operators are increasingly competing to face the growing demand for broadband services at affordable costs. But saving money is not enough today and we are called to design and develop sustainable network architectures," said Alfonso Hernandez, President of Alcatel-Lucent's activities in EMEA.

"With this move to 40 Gbits/s and then to 100Gbit/s, as well as the zero touch photonics proposition offered by our multi-reach DWDM solution, we support NORDUnet in enhancing its network's green profile by saving space and consequently power, while improving network efficiency," he added.

"It is a great achievement that university faculties spread across the Nordic countries are now tied together by this network. The universities have point-to-point communication through dedicated networks and avoid investments in switches and routers. The Nordic countries will have a full ROI in the research network within a few years," said Janne Kanner, Director, Funet Network Services, the Finish research network organisation.

"NORDUnet will provide its customers with high quality resilient solutions at speeds unimagined only a few years back. We are delighted to have taken part in this project," said Fredric Wallsten, Sales Director, IPNETT Carrier Networks, that has implemented the IP technology based on Juniper Networks equipment for NORDUnet.

### **About NORDUnet**

NORDUnet is an international cooperation between the Nordic national networks for research and education. The network interconnects the various Nordic academic research networks, as well as connecting these to the rest of the world. The members of NORDUnet are SUNET of Sweden, UNINETT of Norway, FUNET of Finland, Forskningsnettet of Denmark and RHnet of Island. NORDUnet is the result of a co-Nordic programme financed by the Nordic Council of Ministers.

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