# NORDUnet Q2 2009 update

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### Intro

There has been very quite around the NTT forum for a while and there have been criticism about NORDUnet not informing about plans and network upgrades etc., and rightfully so,,

This mails is to give an update on the plans for the NTT forum, and to provide an update on the NORDUnet plans, goals and current network status for 2009 so far.

### NTT Forum

NTT is the generic forum for technical collaboration between NORDUnet and the national research & education networks for the Nordic countries. The main forum for the NTT is the NTT mailing list and the annual NTT meeting. The NTT forum is open for technical staff at NORDUnet, NREN's, and related institutions.

The goal of NTT is to ensure exchange of experience, discussion of new initiatives and technologies, investigation of possible joint projects, coordination of network operations and services, participation in international projects, and more, in order to secure the best possible operational quality and state of the art network and lecture enabling services to the Nordic research and educational community.

To ensure that the collaboration includes the many facets of R&E networking and at the same time is focused, much of the work in the NTT going forward will take place in a number of permanent forums and in temporary working groups. There is currently 3 permanents forums:

- CTO Meetings. A forum mainly for technical managers, to discuss technical strategy, new initiatives, key challenges, coordinate participation in EU and international projects and possible new development initiatives.
- Operational Meetings. A forum mainly for operations engineers and NOC staff, to share experience, knowledge and best practices, for operational systems, tools, and procedures.
- Technology Meetings. A forum mainly for engineers and application and technology experts, to investigate new technology options and services, facilitate experience sharing and discussion of relevant projects.

These forums may identify particular projects, technologies, or challenges that merit more detailed investigation. In this case, a one-year working group may be formed. The working groups will be formed on an ad-hoc basis from the participants in the NTT team, and will report back to the CTO meetings.

Further details can be found at: https://portal.nordu.net/display/NORDUwiki/NTT+-+the+NORDUnet+Technical+Team

Questions, comments, or ideas regarding the "new NTT", can be provided to: Lars Fisher or Jørgen Qvist

### NORDUnet Update

There is a lot of activity ongoing to upgrade the NORDUnet IP backbone network, nodes and the backup connectivity to the NRENs.
Another focus area is to expand the peering footprint to improve performance and reduce IP Transit cost.

Below you will find a walk through on the plans and current status.

### IP Core and NREN connections upgrade

IP core upgrade to 40G. This means a first phase of upgrading the 4 Core T640 routers to T1600, to make them ready for 40, and 100G. Currently the routers at UNI-C and Ørestad has been upgraded.
The second phase is to upgrade the links to 40G, this will take place after the summer holidays as transport 40G transponders will be delivered.

NREN BU connections upgraded to 10G. This is currently in progress and connections to Forskningsnettet and UNINETT has already been upgraded. The upgrade to FUNETT is being planned, same goes for an additional 10G connection to SUNET.
Rhnet is a chapter in itself. The connections to Iceland has been over- overloaded for a while, and upgrade plans are in progress to have 10G connectivity to Iceland. Currently negotiations with vendors are ongoing, and the plan and hope is to have at least one link upgraded to 10G this year. Details about the plans can be found in the tender material for those interested. https://portal.nordu.net/display/NORDUtender/IceLink+Tender

### Peering

One of the major goals for this year is to increase the peering % to 50 (this is on top of what is being peered off locally by each NREN).
This is to be able to keep our IP Transit traffic at the current level(cost) and absorb the increase in internet traffic as peering.

This is to be achieved by increasing the peering footprint. This will give more peering opportunities and bring us within the peering policy of e.g. some tier 3 operators. So far we have added 3 peering points this year.

- LINX, NIX and DIX

The plan is to have a peering presence at NYIIX in Q3 2009 and later possibly one or more Equinix (IBX) sites, as well as the Finnish FICIX.

### Optical Network

The upgrade of the Optical Network has been completed, and is now supporting alien wavelengths etc.
The Optical core will be upgraded with 40G transponders as part of the IP Core upgrade project.
Several 10G dedicated wavelengths has been put in service as part of the deployment of the DEISA and LHC OPN networks.

Further info and visualization of the above can be found in the NORDUnet Q2 2009 update.ppt