

NORDUnet Strategy Input

NDGF Strategy Workshop March 2008

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The NORDUnet strategy is developed through:

- Board workshops held in 2007
- BOF sessions planned at the 2008 NORDUnet Conference
- Continuously evolving in response to the changes in the user requirements.



Key strategy drivers

- Globalization and International Competition

To push the scientific borders further Global Collaboration it is required to pool global resources and knowledge fx. CERN, eVLBI GLEON etc. This raises the competition between international scientists and institutions.

- Cross Border Collaboration

To be a recognized as a participant in Global Research Projects it requires that national and regional institutions collaborate and pool resources. The Nordic NREN experience is that a coordinating and facilitating interregional coordination body add significant value to the national efforts as a common level play ground.

- Network Paradigm shift

In addition to the general usage of the network usage of the network the requirements for specialized high capacity E2E connections are rapidly increasing. This requires a new approach to inter network and inter organizational provisioning and coordination.

- Interdependencies of various disciplines

In addition to the paradigm shift in networking the interdependencies between multiple disciplines like Networking, Storage, GRID, AAI etc. raises the international and inter regional coordination challenges to a new complexity level.

One should consider common Nordic collaboration organization "NORDUInfra" for all eInfrastructure elements: network, storage, computers, AAA and grid. At least Nordic Countries have a clear national goal for this in the future.



NORDUnet Strategy Questions:

- Transition from "networks only" to eInfrastructures?

NORDUnet has coordinated Nordic NREN cooperation for the last 25 years with great success. There seems to be a corresponding interest in coordination of national HPC, grid, storage and authentication activities.

- Facilitate a more active role for eInfrastructure operations coordination on campus, national and Nordic levels?

- The operations of eInfrastructures is a key discipline in itself. It is extremely complex, and there is a need for close collaboration and coordination on a campus, national and Nordic level. As the national projects focus more and more on peer2peer applications this will create a increased need for such collaborations. Tools, 24x7 support, procedures, billing models etc. should be developed and coordinated.

- Support eInfrastructure research collaboration?

eInfrastructure research is going on in all the Nordic countries and within EU in different settings. During the last couple of years NORDUnet has tried to coordinate NREN research efforts towards the Geant2. Should NORDUnet take upon the "TERENA model" for facilitating and supporting various participation in Nordic and international research and development projects on eInfrastructures? This could take the form of working groups support, pilot projects support, transfer to operations projects support, international representation, etc.



“NORDIC Infrastructure for Research and Education”

Mission:

- ✓ Serve the Nordic NRENS

The NORDUnet method of facilitating and coordinating Nordic & Global activities has proven very successful placing the Nordic NRENS I Line with major international players that would otherwise be unreachable at a cost efficiency level unobtainable on individual basis.

- Coordinate NORDIC NREN Development

- GEANT Projects
- Nordic Projects

- eInfrastructure Services

- Nordunet3
- NDGF

- International Dimension

Facilitating and Coordinating Local-Global-Local contacts and project opportunities.



- **NORDUnet Services:**
 - **NorthernLight**
 - Pan Nordic Redundant Dark Fibre Optical Infrastructure
 - **NORDUnet NOX** (NorthernLight Optical X-Change)
 - Distributed Open Optical Exchange
 - **NORDUnet IP**
 - Pan Nordic Redundant IPv4 & IPv6 Infrastructure
 - **NORDUnet NUNOC**
 - 24x7 eInfrastructure operation centre.
 - **NORDUnet PORTAL** (portal.nordu.net)
 - WIKI and WWW Community services for Research & Educational projects
 - **NORDUnet Meeting**
 - Meeting & AV Conferencing host facilities in Copenhagen & Stockholm
 - **NORDUnet Training**
 - Workshops and Training on Network & Computer Technology
- **NORDUnet Project**
 - **NORDUnet3** (www.nordunet3.org)
 - **NDGF – Nordic Data Grid Facility** (www.ndgf.org)



- The NDGF Hosting request to the NORDUnet Board in 1H2006 couples directly into the NORDUnet strategy and is viewed as a initial step in creating a common inter Nordic facilitation and coordination organization supplementing the National eInfrastructure projects.
- It is important to emphasize that such activities shall supplement and extend the national initiatives making 1+1+1+1+1 more than 5
- The hosting of NDGF by NORDUnet has demonstrated a significant synergy potential. Adding areas like Storage, AAI etc. to this will add to this synergy and thus maximizing the Nordic resources.
- There is a need for:
 - Long term planning to ensure stable resources and continuous operation.
 - Identifying a governance model that addresses the added complexity without a negative impact on the day to day operation.



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