

# CTO Forum - F2F - 3 May 2019

## Logistics

- date: 03.05.2019
- time: 9:00 - 15:00 CEST
- venue: NORDUnet office Kastrup (tentative)
- VC room for remote participation:  
<https://nordunet.zoom.us/j/8804330816> or see below agenda for other options
- Dinner on 02 Maj, 19:30: restaurant TBD.

## Registration

Please [register for the meeting](#) in order that dinner, lunch, etc can be provided.

## Agenda (tentative)

1. Review, presentation of technical strategies for each NREN
2. TNC19 update - presentation at Nordic booth
3. NTW19 update
4. AoB

Presentations:

Presentations can be found in the [CTO Forum folder on Box](#). If you do not have access and believe you should have, contact Lars Fischer or Jørgen Qvist.

## Participants

- CSC / FUNET: Matti, Harri
- UNINETT: Vidar, Olaf
- UNIT: none
- DelC: Martin
- SUNET: Pelle, Leif
- RHnet: none

## Notes

SUNET presentation

- High-level strategy mostly formed 8 years ago. Is reviewed regularly, but has remained mostly stable since
  - guidelines
    - Collaboration
    - economy of scale + cost effective
    - "solutions based on standards or de-facto standards
    - build on existing infrastructure and service;
  - There are considered when thinking about new initiative
  - SUNET believe that strategy is a day-to-day tool
  - Interpretation
    - Swedish research is #1 customer
    - don't do anything unless there's an identified gain
    - listen to customer, but stay a step ahead
    - be at the forefront of technology
    - Network and Identity are our core enabling skills and infrastructure
    - Always be ready to re-evaluate what you do
    - Don't be religious
  - (Vidar: this could be a UNINETT slide; Harri: ditto)
  - (Harri - doing a list like this on "what strategy means for us" would be a good idea for FUNET as well)
  - Overall service view
    - adding a few extra service areas along with network and identity: CnAAS, SOC, Security, Storage & Cloud
    - Research and Collaboration is becoming a important area - new services being built
    - National Robustness (discussion - now much of this before it becomes a distraction)
    - Education services (i.e., LMS - most campuses use the SUNET offering)
    - Media?
  - Challenges
    - Staying agile
    - Keeping focus, avoid growing too much
    - breaking business models of commercial players
    - Remain relevant to research

UNINETT presentation

- New organisation
- Vision: enable world leading research in Norway (used to be "provide world leading network infrastructure")
- Four pillars

- Foundation: trusted advisor on Infrastructure, middleware for the sector
  - networks access
  - Service Platform
  - Security Platform
- Security has become much more important in recent years, and much more concrete - actual services being done
  - Same for FUNET. Just received a 3 M€ grant for developing sw for security services
- Technology strategy
  - 4 innovation areas: mobility, data sharing, network quality, network architecture
  - in addition: idea lab: storage, client ops, cloudification, ....
- Milestones for the next 6 months
  - offer eduroam to highschoools
  - establish CNaas architecture agency for physical construction (who build campuses etc). Forming such a partnership at strategic level is very interesting. Should be possible in other countries.
  - Collaborate with national
  - launch zoom as a service
  - Port phone # from Telenor to Telia
  - UNINETT believes there's a fundamental change for universities happening; The relation of education to time and location with dramatically change. Everything has to adapt to that, starting with buildings,
- Milestones for Security
  - New "DNS Firewall" service
  - Governance structure for security programme
  - Foundations for a operative security analysis programme
  - Investigate new log analysis service (possibly based on HUMIO)
- Milestones for Service Platform
  - Procurement for common IAM platform
  - New FEIDE login GUI
  - Targets for new FEIDE infrastructure
  - Establish cloudification team
  - HW platform for Mediasite service
- Discussion of strategic implications
  - Key drivers: cost pressure, gaining more customers
  - challenges:
    - 5G + mobility. Our mobile track record is not good, but data-only MVNO, e-SIMS, etc maybe change things
    - More focus on latency & performance
    - High availability networks
    - Network Quality for future immersive solutions
- Short-term activities
  - survey needs in sector
  - cooperation with other public fibre owners
  - utilise nordic synergies
  - Connect data centres
  - explore and develop cross border and cross-ocean cable opportunities
  - support government sectors with network know-how - infrastructure, measurement, consulting
  - Improve legacy tools

#### DeiC

- New board, all C-level university people
- Major process of reorganisation and evaluation of future direction
- Major evaluation of current and future services
- Push to do a lot of things locally at campuses
- Strategic direction for DeiC currently in limbo
- Comparison to situation in Norway a year or two ago, suggestion of sharing experience.

#### FUNET

- Quick review of CSC strategy
- FUNET as an element of CSC strategy, essential to reaching CSC goals
- Close corporation with customers / users, ensure that users have the means to be excel
- FUNET technical strategy prepared for the build of the FUNET 2020 network
- Disaggregation at optical layer
- Procurement of cross-border links on-going
  - Turku - Stockholm
  - Vasaa - Umeå
  - Klipsijærvi - Skibotn
  - Helsinki - Tallinn (in place)
  - Kemi - Kalix (in place)
  - Discussion of AUP; NDN is by BoD policy AUP-free, and so links meant for sharing should be as well
- Automation w Ansible
  - Juniper router core for FUNET2020 in production with Ansible, no CLI
  - Net data centre networks in development, Juniper routers and Huawei switches no Ansible
  - CNaas - service development in progress, Ansible automation of campus router / switches in progress, collaboration with one university for development. Target: no CLI from the campus side.
- Interest in sharing Ansible playbooks.
  - Session at NTW19 is a good idea. Also, future workshops
  - Pelle: the tools being developed for CNaas will in the future also be the tools used to run FUNET in the future

- TNC slides

- CNaas (per / vidar)
- Ansible / automation (Matti)
- Faroese islands (Martin)
- SAT-kom / leosat (martin, Jørgen)
- EuroHPC (Lars, Harri)
- EOSC-Nordic (Lars, NeIC)
- NDN NGN (Qvist)
- FUNET 2020?
- EISCAT?
- ESS?
- CAE-1

**uYou are invited to a Video Conference meeting by Jørgen Qvist, NORDUnet**

***Join meeting using Zoom***

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Or iPhone one-tap (US Toll): +14086380968,8804330816# or +16465588656,8804330816#

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Or a H.323/SIP room system:

H.323: 109.105.112.236

Meeting ID: 880 433 0816

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Note: Mobile Apps is available on Apple app store and Google Play.

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## **Notes**

## **Actions**