

**Presentation at Université catholique de Louvain**

# The NorNet Research Testbed

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# Goals of the NorNet Project

- Building up a **realistic** multi-homing testbed
- Wired and wireless
  - Wired → “NorNet Core”
  - Wireless → “NorNet Edge”
- **Perform research with the testbed!**



How to get a *realistic* testbed?

# Idea: Distribution of NorNet over whole Norway


- **Challenging topology:**
  - Large distances
  - A few “big” cities, many large rural areas
  - Svalbard:
    - Interesting location
    - Many polar research institutions
- **NorNet Core:**
  - Currently 10+1 sites
- **NorNet Edge:**
  - Currently ca. 400 nodes





# NorNet Core Site Deployment

A NorNet Core site:

- 1x switch
- 4x server
  - 1x tunnelbox
  - 3x research systems
- At least two ISP connections
  - Uninett 
  - Other providers



**UNIS**

Longyearbyen 78.2°N,15.6°E



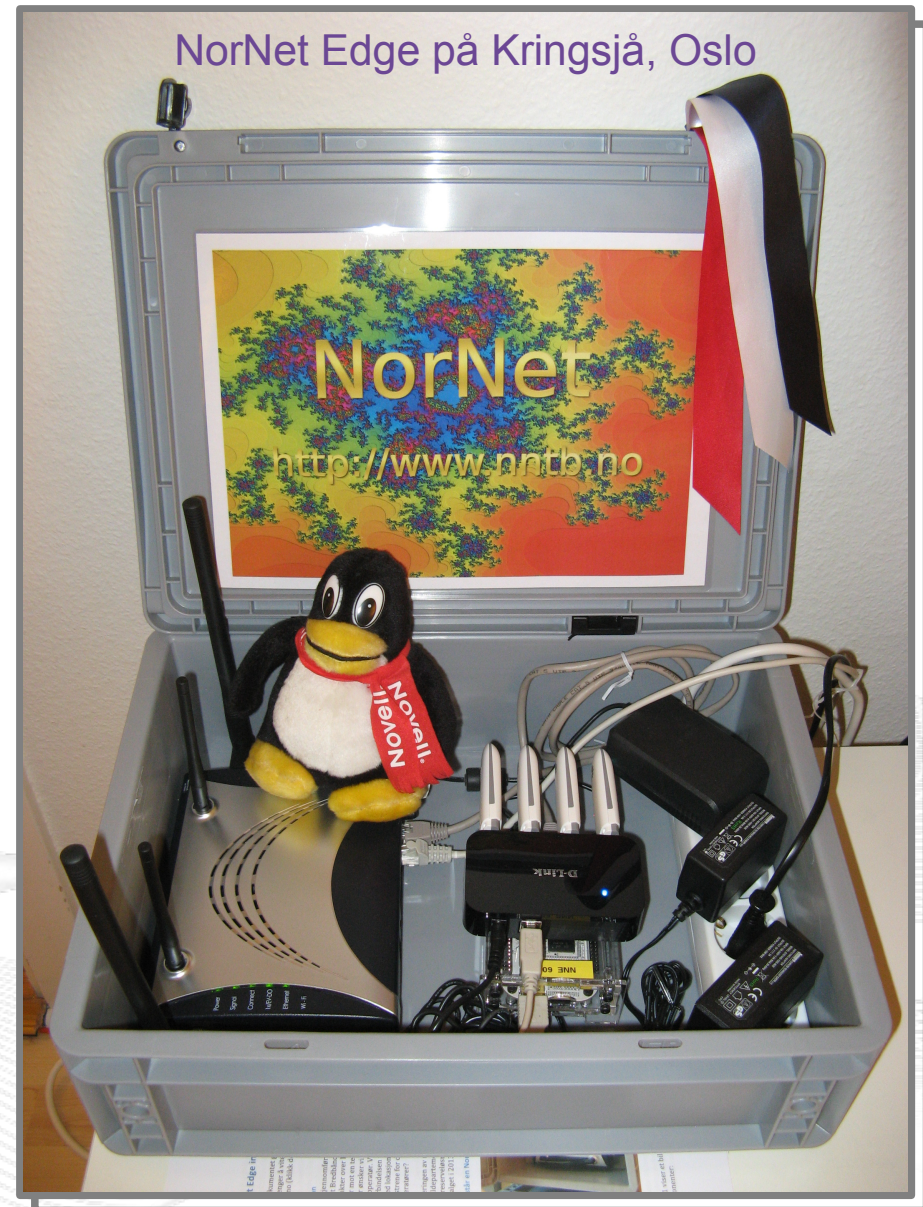
NorNet Core på Svalbard



# The NorNet Edge Box: Ready for Deployment

## Box contents:

- Beagle Bone or Ufoboard embedded Linux system
- 4x USB UMTS (at USB hub):
  - Telenor, NetCom,
  - Network Norway, Tele2
- 1x ICE CDMA mobile broadband
- 1x Ethernet
- Power supplies
- Handbook



# Users

***“The road to hell is paved with unused testbeds.”***

**[James P. G. Sterbenz]**

- Of course, NorNet does **not** intend to be another unused testbed!
- NorNet will be open for all interested users!
  - Similar to PlanetLab ...
  - ... but with higher node availability and tighter monitoring
  - ... and, of course, **multi-homing**
- **Particularly, it can also be used by the MPTCP community!**

**More details to be announced soon!**



# The 1st NorNet Users Workshop (NNUW-1)

The 1st International NorNet Users Workshop

# NNUW-1

Fornebu, Akershus/Norway

September 18-19, 2013

See <http://www.nntb.no/>



Any Questions?

N  R N E T

**Visit <http://www.nntb.no> for further information!**