The NorNet Testbed: A Platform for Evaluating Multi-Path Transport in the Real-World Internet

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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
A 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
- IPv4 and IPv6 (if available)
The NorNet Edge Box: Ready for Deployment

Box contents:

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

See http://demo.robustenett.no!
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?

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