

# TF06: Transport Protocols

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# Description/Background

- Why?
  - Infrastructure: fibre technology, cellular explosion.
  - Content/services: more and larger objects, chained services.
  - Users: Increasing expectations on performance.
- What?
  - Study performance of various protocols (TCP versions).
  - Identify strong and weak points in the “new” world.
  - Identify common problems to indicate further research.
- Who
  - Ericsson (SE) (1+2)
  - Kristianstad University (SE) (1+2)
  - University of the Basque Country (ES) (5)
  - Karlstad University (SE) (3)

# Activities



- Phases:
  - TCP versions over variable radio channels; start-up and steady-state.
  - Verification of results from simulations.
  - Identification of common/remaining issues.
- Cycles:
  - Formulation of problems.
  - Definition of scenarios and metrics.
  - Conducting experiments.
  - Analysing experiments.
  - Making systematic conclusions.

# Activities



- Physical meetings at MC meetings.
- Large number of phone meetings.
- Two STSMs and one self-funded visit.

# Activities and Results

- Development of simulation (ns3) based platform.
  - Real world (TCP) and simulated (radio).
- Supplemented by
  - hardware emulator and
  - MONROE platform.

# Results



- New network of collaboration.
- One master thesis.
- One (ongoing) doctoral thesis.
- Nine scientific publications; a few more in the pipe.
- One industrial test bed.
- (Two patent applications.)
- Grants?