

Chapter 9

Ericsson: Quality of Service in IP-networks

9.1 The task

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This task concerns *Quality of Service* in IP-networks, or in more detail to be able to describe and predict the delay and losses of data packets in the network. This is required for the network operators to be able to sell a given capacity with a given quality. The purpose of learning systems in this context is to replace difficult, expensive, and interfering measurements with approximations based on other less complicated measurements.

Since the kind of communication network of interest here, *Differentiated Services*, is currently under development and not used in commercial systems today, training data for the learning systems can not be collected from any real network. Instead, test equipment has to be built up in the lab, traffic generated, and measurements performed on this.

In the beginning of the project, routers were acquired and a testbed was built. Synthetic test traffic was generated and used for measurements on the test network. Unfortunately, the envisaged way to collect the measured performance statistics, required for the DALLAS project, failed. In spite of several attempts, and a large amount of man months, it was not possible to generate any useful set of data.

Since data for the learning systems could not be produced, this task of the DALLAS project unfortunately had to be aborted.

