MASTER THESIS – LOAD BASED INSTALLATION OF POLICY BASED ROUTES

Background
The requirements on IP transport are high in the telecom backhaul. In order to provide resilience in the network it is common to use several routing paths for one radio site. Today the traffic distribution over the different routing paths is configured statically via static routes or policy based routes. For the scenario where one of the routing paths has better characteristics it is desirable to use the other routing path only when the load of the first path is too high. To support this it should be possible to automatically move traffic to the slower path in an overload scenario using automatically installed policy based routes.

Thesis Description
The goal with the master thesis is to implement a prototype that based on the traffic utilization on a traffic queue installs policy based routes in order move over part of the traffic to a different path.

The following steps are envisioned as part of the thesis work:

- Create a prototype that automatically installs policy based routes based on queue utilization.
- Investigate different strategies for installing the routes based on different traffic scenarios.
- Test the prototype under different load scenarios.

The thesis will be concluded with a result presentation for the Ericsson research team.

Qualifications
This project aims at students in computer science, computer engineering or similar. Background in IP network is preferred.

Extent
1-2 students, 30hp each

Location
Linköping, Östergötland, SE

Preferred Starting Date
Spring 2016

Keywords
C, Quality of Service, Optimization, IP networking, Routing

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