**Thesis B.Sc.**

Thesis M.Sc.

IDP, HiWi, Guided Research

Browser-based Internet connection testing

Motivation

We operate a browser-based service to analyze the properties of Internet connection at **nattest.net.in.tum.de**. The service specializes on the analysis of in-path Network Address Translation and tests for the NAT port mapping behavior, NAT mapping timeout, hole-punching, and SCTP compatibility, amongst other things.

http://nattest.net.in.tum.de
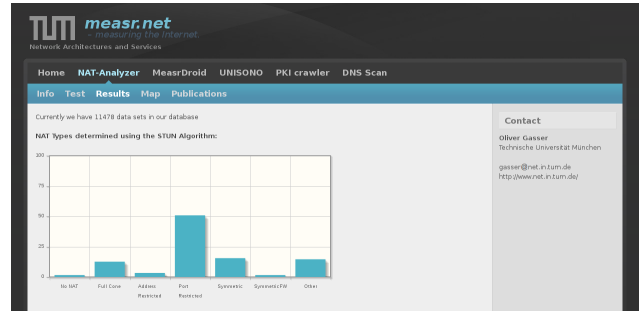
The service was created in 2011 and is based on Java-Applets, a technology which is barely supported by modern browsers, and virtually non-existent support among mobile browsers. Our goal is to reimplement the service as far as possible using modern browser technologies (i.e. JavaScript) on the client-side. Additionally it is possible to develop new tests that are not present in the existing implementation.

Your Task

- Understand the tests implemented by our current, Java-based implementation
- Decide for each test whether it can be implemented for modern browsers
- Implement and evaluate feasible tests

Prerequisites

- Interest in crowd-sourced measurements and ISP networks
- JavaScript, Python (server-side), networking basics
- Problem-solving thinking and ability to work on your own

Contact

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