

**Brno University of Technology - Faculty of Information Technology**

Department of Computer Systems

Academic year 2015/2016

**Bachelor Project Specification**

For: **Pilátová Kateřina**  
Branch of study: Information Technology  
Title: **IP Address Activity Monitoring**  
Category: Networking

**Instructions for project work:**

1. Get familiar with principles of network monitoring and with a framework NEMEA, which is being developed by CESNET.
2. Design a system for long-term monitoring of activity of individual IP addresses in a network. Activity here means only whether an address generated a network traffic in given time interval or not. The system should consist of a NEMEA module for data gathering and a simple GUI for visualization.
3. Implement the system designed in item 2.
4. Deploy the system in the CESNET network and test its functionality and usability.

**Basic references:**

- By suggestions of the supervisor.

**Requirements for the first semester:**

Items 1 and 2 of the instructions.

Detailed formal specifications can be found at <http://www.fit.vutbr.cz/info/szz/>

The Bachelor Thesis must define its purpose, describe a current state of the art, introduce the theoretical and technical background relevant to the problems solved, and specify what parts have been used from earlier projects or have been taken over from other sources.

Each student will hand-in printed as well as electronic versions of the technical report, an electronic version of the complete program documentation, program source files, and a functional hardware prototype sample if desired. The information in electronic form will be stored on a standard non-rewritable medium (CD-R, DVD-R, etc.) in formats common at the FIT. In order to allow regular handling, the medium will be securely attached to the printed report.

Supervisor: **Bartoš Václav, Ing.**, DCSY FIT BUT

Beginning of work: November 1, 2015

Date of delivery: May 18, 2016

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