



Report of the master thesis opponent

Master thesis title: Academic Base station

Name and surname of the student: Bc. Aziz Zagroz

Name and surname of the master thesis opponent (incl. academic degrees and company):

Ing. Antonín Mazálek, Ph.D., Katedra komunikačních a informačních systémů, Univerzita obrany, Kounicova 65, 662 10 Brno

1) Complexity of the task:

very high average
 high below-average

2) Applied methods and procedures:

excellent satisfactory
 very good sufficient
 good fail

3) Use of terminology:

excellent satisfactory
 very good sufficient
 good fail

4) Delivered outputs accuracy:

excellent satisfactory
 very good sufficient
 good fail

5) Professional level:

excellent satisfactory
 very good sufficient
 good fail

6) Language and text level:

excellent satisfactory
 very good sufficient
 good fail

7) Graphical form:

excellent satisfactory
 very good sufficient
 good fail

8) Student has met the assignment:

completely
 partly
 not at all

9) Obtained results, own contribution, practical usability of the delivered work*:

See below

10) Remarks*:

See below

11) Questions related to the work (to be answered during the final presentation)*:

See below

Permit the final presentation: recommended not-recommended

Overall evaluation of the master thesis:

A excellent C good E sufficient
 B very good D satisfactory F fail

Date: 26.5.2014

Signature:

Please tick the evaluation of your choice

* Should you need more space, please use the rear side of this form

Ad 9)

The Author, in cooperation with the Satakunta University of Applied Sciences from Finland (SAMK), put a base station of the GSM system into operation in a laboratory of the Czech Technical University in Prague (ČVUT). Using the tunnelling of Abis interface, he connected the base station to a mobile switching centre of the Finnish university. He performed a basic test of the connection. The thesis also includes the report of established connections through the GTP protocol.

The results of the thesis are applicable upon lessons and testing of various versions of behaviour of the GSM real network

Ad 10)

Some parts are hard to understand due to complicated sentences, see for example the first paragraph of the conclusion, or the first paragraph on page 14, etc.

From the formal point of view, the thesis has poorly numbered chapters, figure 4.2 is illegible.

I find the fourth chapter as crucial. The author describes a range of tools for administration and supervision of the network and also states a report of communication from the Wireshark environment. However, individual parts of the chapter are not properly linked and so they are not logically followed. I find the description of what the author used the tools for and a comment of results and knowledge acquired as insufficient.

In the conclusion, I miss assessment of his thesis, its contribution and the results acquired.

Ad 11)

Questions:

- 1) In the fourth chapter, you mention the tools of NetHawk Protocol Analyzer, Mobility Management or Nokia NetMonitor. For what purposes have you used these tools during your work?
- 2) In the Figure 4.4, there is captured communication through the GTP protocol. Please, describe where you found it. What is the connection between the depicted IP addresses and the addressed range showed in the Figure 3.1?