



POSSIBILITIES OF USING RIPE ATLAS FOR IMPROVEMENT OF THE ELECTRONIC HEALTH SYSTEM IN REPUBLIC OF MACEDONIA

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AGENDA

- Introduction
- Motivation
- The Macedonian health system
 - Ministry of Health
 - *Health institutions*
 - *Faculty of Computer Sciences and Education*
- Conclusion
- Future development

Introduction

- FINKI(FCSE) campus represents a “cloud campus”
- large number of computer labs, geographically spread in few different locations
- FINKI Computer Center (FCC) has to provide lot of services with limited resources
- FINKI(FCSE) works with several ministries in their IT projects.
- FINKI(FCSE) is the largest IT institution for IT experts

Motivation (1)

- FCC team started to help the ministry of health in improving the availability of the national health system mojtermin.mk
- The generally bad connection between networks creates a problematic area for service availability.
- FCSE already has a multi-homed infrastructure and the expertise for helping the ministry.

Motivation (2)

- The national system mojtermin.mk is a agile developed system.
- Number of users: 100 health institutions and clinics, 300 pharmacies, 500 doctor offices.
- The dashboard: <http://livedashboard.zdravstvo.gov.mk>
- Main problem – lost internet connection to the national system which usually is a problem with the local ISP

The Macedonian health system

- Ministry
- Doctor offices – primary health users
- Hospitals – secondary health users
- Clinics – tertiary health users
- 50 probes in secondary and tertiary users – covers 75% of usage of the national system
- Doctor offices and pharmacies have a paper based alternate solution so internet connectivity is not a issue

Phase 1

- Arrange for every medical institution to have a probe connected to the internet connection.
- Availability of the probe by the regular RIPE Atlas system and API will show the quality of the link
- In case of network issues – additional test like trace-route can provide valuable data
- Test latency once per hours from every probe to track statistics
- Current API of RIPE Atlas has all the requires functions
- Main problem: How to get 50 probes which can be connected to a single RIPE atlas account for easy management since budget does not allow procurement or donation to the RIPE Atlas project

Phase 2

- After successful PHASE 1 – ask for funding for more probes
- Use the planned Macedonian Internet Exchange project – MATRIX start to fund a Ripe Anchor probe close to the FCSE network
- Develop more Visual Tools and integrate with Zabbix

Conclusion

- The WIN-WIN situation both for the RIPE Atlas system and the Macedonian Internet networks
- Motivate ISP s to improve their networks
- Help governmental institutions
- Transfer of known how and provide status later to the RIPE Atlas team

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