Review report of a final thesis

Student:	Pragya Sharma
Reviewer:	Ing. Alexandru Moucha, Ph.D.
Thesis title:	Alternative Network Layers in OpenStack
Branch of the study:	Computer Systems and Networks

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Evaluation criterion:	The evaluation scale: 1 to 5.
1. Difficulty and other comments on the assignment	*1 = extremely challenging assignment,* ***2 = rather difficult assignment,*** *3 = assignment of average difficulty,* *4 = easier, but still sufficient assignment,* *5 = insufficient assignment*
Criteria description: *Characterize this final thesis in detail and its relationships to previous or current projects. Comment what is difficult about this thesis (in case of a more difficult thesis, you may overlook some shortcomings that you would not in case of an easy assignment, and on the contrary, with an easy assignment those shortcomings should be evaluated more strictly.)*	
Comments: Although the testing in itself was a straight-forward task, understanding all the components of a SDN, their place, the setup, their internal I consider to be a relatively difficult task, due to its shear size.	

Evaluation criterion:	The evaluation scale: 1 to 4.
2. Fulfilment of the assignment	***1 = assignment fulfilled,*** *2 = assignment fulfilled with minor objections,* *3 = assignment fulfilled with major objections,* *4 = assignment not fulfilled*
Criteria description: Assess whether the thesis meets the assignment statement. In Comments indicate parts of the assignment that have not been fulfilled, completely or partially, or extensions of the thesis beyond the original assignment. If the assignment was not completely fulfilled, try to assess the importance, impact, and possibly also the reason of the insufficiencies.	
Comments: The requirements were successfully fulfilled.	

Evaluation criterion:	The evaluation scale: 1 to 4.
3. Size of the main written part	***1 = meets the criteria,*** *2 = meets the criteria with minor objections,* *3 = meets the criteria with major objections,* *4 = does not meet the criteria*
Criteria description: Evaluate the adequacy of the extent of the final thesis, considering its content and the size of the written part, i.e. that all parts of the thesis are rich on information and the text does not contain unnecessary parts.	
Comments: The size of the written work is in accordance to the expectancy for a master thesis.	

Evaluation criterion:	The evaluation scale: 0 to 100 points (grade A to F).
4. Factual and logical level of the thesis	85 (B)
Criteria description: Assess whether the thesis is correct as to the facts or if there are factual errors and inaccuracies. Evaluate further the logical structure of the thesis, links among the chapters, and the comprehensibility of the text for a reader.	
Comments: The work was performed and documented in a (mostly) clear way and it is easy to read and understand. "Mostly" is due to some formal deficiencies which will be detailed in 5.	

Evaluation criterion:	The evaluation scale: 0 to 100 points (grade A to F).
5. Formal level of the thesis	70 (C)
Criteria description: Assess the correctness of formalisms used in the thesis, the typographical and linguistic aspect s, see Dean's Directive No. 26/2017, Article 3.	

Comments:

The Czech abstract is miserable. Google translate does a bad job when translating to Czech but the abstract in the work is worse than a Google translation. The supervisor is native Czech and he could have helped the student with the translation, if he would have been asked to help.

Figures (especially 1.1 and 1.2) are blurred and low-resolution, at almost the limit of readability. I saw only the electronic document - maybe in the printed one the figures are of better quality.

In Table 1.2 some services are with capital letter and some with small letter. Is there a difference between them?

Chapter 2.4 could lead to a long debate regarding the definitions, nevertheless I consider it correct as all the required definitions are there and the work is realised according to them.

Page 53 and more - I have no idea what that code does as I am not familiar with the language. Code should be presented in Appendix ONLY, unless the work is on coding and optimisation.

Figure 3.11 - it is not crystal clear from the text if the topology runs on only one physical machine. I found out it does, as I expected.

Evaluation criterion:	*The evaluation scale: 0 to 100 points (grade A to F).*
6. Bibliography	*100 (A)*

Criteria description:
Evaluate the student's activity in acquisition and use of studying materials in his thesis. Characterize the choice of the sources. Discuss whether the student used all relevant sources, or whether he tried to solve problems that were already solved. Verify that all elements taken from other sources are properly differentiated from his own results and contributions. Comment if there was a possible violation of the citation ethics and if the bibliographical references are complete and in compliance with citation standards.

Comments:
Excellent work of reading, understanding and summarising techical documentation.

Evaluation criterion:	*The evaluation scale: 0 to 100 points (grade A to F).*
7. Evaluation of results, publication outputs and awards	*70 (C)*

Criteria description:
Comment on the achieved level of major results of the thesis and indicate whether the main results of the thesis extend published state-of-the-art results and/or bring completely new findings. Assess the quality and functionality of hardware or software solutions. Alternatively, evaluate whether the software or source code that was not created by the student himself was used in accordance with the license terms and copyright. Comment on possible publication output or awards related to the thesis.

Comments:
I do not think the results are publishable in this form, as there are still some things which are not clear - from my perspective.

Evaluation criterion:	*No evaluation scale.*
8. Applicability of the results	

Criteria description:
Indicate the potential of using the results of the thesis in practice.

Comments:
The work is surely useful if the student will continue on the path of SDNs and for the supervisor.

Evaluation criterion:	*No evaluation scale.*
9. Questions for the defence	

Criteria description:
Formulate any question(s) that the student should answer to the committee during the defence (use a bullet list).

Questions:
There is a huge difference of throughput between TCP and UDP for each experiment. Could you specify where does it come from, at least intuitively? I do not see this because the experiments are with VLANs and GRE tunnels which are on Layer 2 and thus should not induce so big differences.

Evaluation criterion:	*The evaluation scale: 0 to 100 points (grade A to F).*
10. The overall evaluation	*85 (B)*

Criteria description:
Summarize the parts of the thesis that had major impact on your evaluation. The overall evaluation **does not** have to be the arithmetic mean or any other formula with the values from the previous evaluation criteria 1 to 9.

Comments:
The work is nevertheless very good in my opinion.

Signature of the reviewer: