

# Review report of a final thesis

Czech Technical University in Prague

Faculty of Information Technology

**Student:** Bc. Martin Klepáč  
**Reviewer:** Ing. Antonín Procházka  
**Thesis title:** Enhancing Availability of Services in Multi-Tenant Environment Using Software-Defined Networking  
**Branch of the study:** Computer Systems and Networks (Master, in Czech and in English)

**Date:** 3. 6. 2015

<i>Evaluation criterion:</i>	<i>The evaluation scale: 1 to 5.</i>
<b>1. Difficulty and other comments on the assignment</b>	<b>1 = extremely challenging assignment, 2 = rather difficult assignment, 3 = assignment of average difficulty, 4 = easier, but still sufficient assignment, 5 = insufficient assignment</b>
<i>Criteria description:</i> 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.)	
<i>Comments:</i> I rate the task as more difficult, because it requires research and understanding of a relatively new topic, which is not that well supported.	
<i>Evaluation criterion:</i>	<i>The evaluation scale: 1 to 4.</i>
<b>2. Fulfilment of the assignment</b>	<b>1 = assignment fulfilled, 2 = assignment fulfilled with minor objections, 3 = assignment fulfilled with major objections, 4 = assignment not fulfilled</b>
<i>Criteria description:</i> 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.	
<i>Comments:</i> The thesis fully satisfies the given task.	
<i>Evaluation criterion:</i>	<i>The evaluation scale: 1 to 4.</i>
<b>3. Size of the main written part</b>	<b>1 = meets the criteria, 2 = meets the criteria with minor objections, 3 = meets the criteria with major objections, 4 = does not meet the criteria</b>
<i>Criteria description:</i> 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.	
<i>Comments:</i> All the parts of the text contain relevant information.	
<i>Evaluation criterion:</i>	<i>The evaluation scale: 0 to 100 points (grade A to F).</i>
<b>4. Factual and logical level of the thesis</b>	<b>85 (B)</b>
<i>Criteria description:</i> 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.	
<i>Comments:</i> The text of the thesis is well structured. In some cases there are certain terms or topics mentioned before definition or other explanation, which may have negative impact on readability, but the author has used links in such situations and it is questionable which way would have more negative impact.	
<i>Evaluation criterion:</i>	<i>The evaluation scale: 0 to 100 points (grade A to F).</i>
<b>5. Formal level of the thesis</b>	<b>100 (A)</b>
<i>Criteria description:</i> Assess the correctness of formalisms used in the thesis, the typographical and linguistic aspects, see Dean's Directive No. 12/2014, Article 3.	
<i>Comments:</i> The text of the thesis conforms the dean's guideline #12/2014, article 3.	
<i>Evaluation criterion:</i>	<i>The evaluation scale: 0 to 100 points (grade A to F).</i>
<b>6. Bibliography</b>	<b>100 (A)</b>
<i>Criteria description:</i> 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:**

The resources used are well selected and used.

*Evaluation criterion:*

*The evaluation scale: 0 to 100 points (grade A to F).*

**7. Evaluation of results, publication outputs and awards**

100 (A)

*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:**

The thesis shows the advantages and disadvantages of using Software Defined Networks (SDN) during live virtual machine migration. However, it was not tested on a physical switches, because of a lack of vendors support of SDN protocols.

*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 topic can evolve in future and it has a potential of further contribution to the selected topic.

*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:**

How did you test the topology change during the live migration without SDN? In case of the SDN, it is done automatically. But how have you done it without SDN to keep ability of time comparison?

*Evaluation criterion:*

*The evaluation scale: 0 to 100 points (grade A to F).*

**10. The overall evaluation**

90 (A)

*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 theoretical part of the topic is well covered and the results can be practically used. Further work on this topic can contribute to development of the area of Software Defined Networks.

Signature of the reviewer: