



# Supervisor's statement of a final thesis

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**Student:** Stanislava Blaňková  
**Thesis title:** Analysis of the most currently-used enterprise network attacks and their detection and mitigation  
**Branch / specialization:** Computer Security and Information technology  
**Created on:** 8 June 2021

## Evaluation criteria

### 1. Fulfillment of the assignment

- ▶ [1] assignment fulfilled
- [2] assignment fulfilled with minor objections
- [3] assignment fulfilled with major objections
- [4] assignment not fulfilled

The work is fulfilled, although not all the parts at the same level of quality.

### 2. Main written part 80<sub>/100</sub> (B)

It is obvious that the student hit a major obstacle in obtaining the data referring to the attacks from different Czech entities. This required a lot of time and invested energy. This resulted in the fact that, at the end, the author ran out of time. The report is easy to read and understand.

### 3. Non-written part, attachments 79<sub>/100</sub> (C)

The different pieces of code could have been better organised and chosen. For example, the ASA code is correct but it is only a minor fraction of what an ASA device is capable of, in the area of filtration / prevention for attacks. For example, the startup configuration file of my home ASA running on a FirePOWER1010 device is 84 kB in size.

### 4. Evaluation of results, publication outputs and awards 79<sub>/100</sub> (C)

The results are some very interesting (as it is the analysis of the incidents in the Czech Republic) and some are lacking depth. In this category it is the mitigation part of the work. The mitigation could have been agnostically explained (as a principle) and then explained how it is done with Cisco technologies (and/or devices). Moreover, the highest-end devices and technologies which allow a scalable security policy to be deployed in a

consistent way (I refer to Cisco FirePOWER Management Center and Cisco FirePOWER Threat Defence) are treated superficially, more attention being given to technologies which are by today standard obsolete (ASA 5505 for example).

## 5. Activity of the student

- ▶ [1] excellent activity
- [2] very good activity
- [3] average activity
- [4] weaker, but still sufficient activity
- [5] insufficient activity

This I have to praise. The student did an EXCELLENT work. She had to contact a lot of people from different entities and she managed it all by herself.

## 6. Self-reliance of the student

- ▶ [1] excellent self-reliance
- [2] very good self-reliance
- [3] average self-reliance
- [4] weaker, but still sufficient self-reliance
- [5] insufficient self-reliance

Excellent level of independence and choice. What I criticised here was just lack of depth because of the time expiration at the end of the semester.

## The overall evaluation

79 /100 (C)

A good, almost very good work. Time could have been better managed as a resource. This would have given better results, for sure.

## **Instructions**

### **Fulfillment of the assignment**

Assess whether the submitted FT defines the objectives sufficiently and in line with the assignment; whether the objectives are formulated correctly and fulfilled sufficiently. In the comment, specify the points of the assignment that have not been met, assess the severity, impact, and, if appropriate, also the cause of the deficiencies. If the assignment differs substantially from the standards for the FT or if the student has developed the FT beyond the assignment, describe the way it got reflected on the quality of the assignment's fulfilment and the way it affected your final evaluation.

### **Main written part**

Evaluate whether the extent of the FT is adequate to its content and scope: are all the parts of the FT contentful and necessary? Next, consider whether the submitted FT is actually correct – are there factual errors or inaccuracies?

Evaluate the logical structure of the FT, the thematic flow between chapters and whether the text is comprehensible to the reader. Assess whether the formal notations in the FT are used correctly. Assess the typographic and language aspects of the FT, follow the Dean's Directive No. 26/2017, Art. 3.

Evaluate whether the relevant sources are properly used, quoted and cited. Verify that all quotes are properly distinguished from the results achieved in the FT, thus, that the citation ethics has not been violated and that the citations are complete and in accordance with citation practices and standards. Finally, evaluate whether the software and other copyrighted works have been used in accordance with their license terms.

### **Non-written part, attachments**

Depending on the nature of the FT, comment on the non-written part of the thesis. For example: SW work – the overall quality of the program. Is the technology used (from the development to deployment) suitable and adequate? HW – functional sample. Evaluate the technology and tools used. Research and experimental work – repeatability of the experiment.

### **Evaluation of results, publication outputs and awards**

Depending on the nature of the thesis, estimate whether the thesis results could be deployed in practice; alternatively, evaluate whether the results of the FT extend the already published/known results or whether they bring in completely new findings.

### **Activity of the student**

From your experience with the course of the work on the thesis and its outcome, review the student's activity while working on the thesis, his/her punctuality when meeting the deadlines and whether he/she consulted you as he/she went along and also, whether he/she was well prepared for these consultations.

### **Self-reliance of the student**

From your experience with the course of the work on the thesis and its outcome, assess the student's ability to develop independent creative work.

### **The overall evaluation**

Summarize which of the aspects of the FT affected your grading process the most. The overall grade does not need to be an arithmetic mean (or other value) calculated from the evaluation in the previous criteria. Generally, a well-fulfilled assignment is assessed by grade A.