

CS 6480: Lab Assignment 1

Mininet - Software Defined Networking

Your Name

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1 Introduction

Where you will motivate what problem you addressed and why that is important. **Here the problem being addressed is not to teach you about Mininet and/or SDN, but the security problem addressed by the Random Host Mutation approach [1].** Since we can not claim the idea, however, you'd have to cite that work in the introduction and say something to effect that you reproduced a part of the paper for this assignment.

2 Design

Here you would briefly describe details of your approach *at the architectural level*. How did you do the DNS mapping? Did you use an external controller? How did you implement the DNS functionality?

This would be a good section in which to provide a figure to explain what you have done.

3 Implementation

Here you would briefly describe the actual implementation. Here you would say which controller platform you used, what language the implementation was in etc.

4 Results

Here you will present some results to show that your implementation was functional. Figures (e.g., time series, distribution plots etc) and tables are in general good ways to present your results. Be sure to have accompanying text that describe each result that you present. Actual results will of course depend on the content of your report.

5 Discussion

Here you would discuss the pros and cons of your approach. Specifically, you might want to point out limitations of the architectural approach in general (i.e., essentially what was proposed in [1]), as well as limitations of your own implementation. This would also be a good place to suggest "future work". I.e., how some of these limitations might be addressed etc.

References

- [1] JAFARIAN, J. H., AL-SHAER, E., AND DUAN, Q. Openflow random host mutation: transparent moving target defense using software defined networking. In *Proceedings of the first workshop on Hot topics in software defined networks* (New York, NY, USA, 2012), HotSDN '12, ACM, pp. 127–132.