

# CS 6480: Class discussion summary

## HA 3.b

José Monterroso

School of Computing, University of Utah

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### Discussion summary

- *Summary:* We spent quite a bit of time discussing the abstract and the the introduction. It was brought to our attention that these two sections are considered to be great sections to mimic if we decided to do a systems paper of our own. What's great about these sections is that they present the problem up front and lay the groundwork/background for the more technical sections later on. We then moved on to talk about east and west traffic. This was one of the questions I had. East west traffic is a way of interpreting how microservices interact with other microservices. And this lead to our main discussion on eZTrust. In traditional firewall approach we write up rules for ip address and ports, but for microservices this doesn't apply. So what eZTrust does is use eBPF's eTagger and eVerifier to add context tags to each packet and upon arrival it verifies the packet by checking its tag.
- *Strengths and weaknesses:* Towards the end of the class we spent sometime discussing some pros and cons regarding the paper. I'd say that overall there was mixed feelings about this paper. Of the parts we discussed it was brought up that the abstract and introduction were good. Another strength that was discussed were the graphs, algorithms, figures, and tables. Figure 1 and 2 really brought out the design ideas, and put the logic into concrete visualizations. One final strength that was brought up was the organization of the paper. In previous papers that we have discussed they were lacking concrete sections. But this paper does a great job of introduction the problem and solution, explaining eZTrust's design and evaluating its performance compared to other related works. Now the weaknesses mentioned during our discussion related to the contents of the paper. They present a new system for security, but rather than focusing on the security aspects and analysing new potential flaws, they focus on evaluating their performance. It's really weird to design a security system and not focus on its security abilities.
- *Connection with other work:* During this discussing at least, there wasn't any mentions or talks of other papers. But from my knowledge this paper talks about microservices, lightweight containers, and containerization. All of these topics relate to our HA2 paper "Containerization and the PaaS Cloud. "
- *Future work:* We brought up the ideas of eBPF and how on a packet per packet basis it can use the eTagger, and eVerifier I think there is a lot of potential for this type of system. This can be used to trace packets, or get data regarding on how microservices use packets.