

Networked System Design and Implementation (NSDI'11)

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1 Introduction

I am student of Master in Network and System Administration at Oslo University Collage, Oslo University. I got a chance to attend the conference Networked System Design and Implementation (NSDI'11) arranged by USENIX. The conference was arranged in Boston, Massachusetts state USA and started from 30th March to 1st April 2011 at Sheraton Boston Hotel. Conference home page <http://www.usenix.org/events/nsdi11/index.html> is contained all the management and arrangement issues in detail can be viewed. I planned my tour from 29th March by taking the flight of British Airways from Oslo to London and then American Airline from London to Boston. After a long journey of 17 hours I reached Boston at 6 pm.

The conference was arranged at Sheraton Boston Hotel, Republic Ballroom. Just after my arrival to hotel I visited the conference hall for registration and obtained my named Budge and accessories such as conference schedule and details of the program along with all the papers that are going to presented in the conference.



Figure 1: View of Sheraton Hotel, venue of conference.

During my stay in Boston I visited the famous places of the city that in-

clude the Harvard University, Massachusetts Institute of Technology, Boston Public Library, and markets as well.

2 USENIX

USENIX, the advance computing systems association having the goal to boost the technologies and innovations. USENIX every year gives the opportunities to engineers, system administrators, and scientists of the computing field to present their excellence and merging technologies. In this context USENIX every year arranges the NSDI conferences that are specifically presented the number of articles by world class University students and research centers.



Figure 2: NSDI'11 site

NSDI'11 was a renowned event and thus sponsored by top IT and research institutes such as Infosys, EMC2, Google, National Science Foundation, vmware, Bronze Sponsors, Akamai, CISCO, HP, Intel, Microsoft Research Labs, acmqueue, ADMIN network and security, Conference Guru, DATA CENTER, Free Software Magazine, girls tech, infoSecNews.org, IT

knowledge xchange, Linux Gazette, Linux Journal, etc.

3 Conference's Structure and topic covers

NSDI'11 was planned for three days started from 30th March to 1st of April 2011, and in each day it commences from 9 am to 5 pm daily and also offers refreshment. Papers that are presented in the conference are structured according to their topics that include the followings:

- Performance and Speed of Network
- Data Intensive Computing
- Security and Privacy
- Energy and Storage
- Debugging and Correctness
- Mobile Wireless
- Datacenters Learning to Share

Poster session was also arranged at the end of each day. Different posters are presented with different ideas describe problems with their solutions. Few posters are presented as sample:-

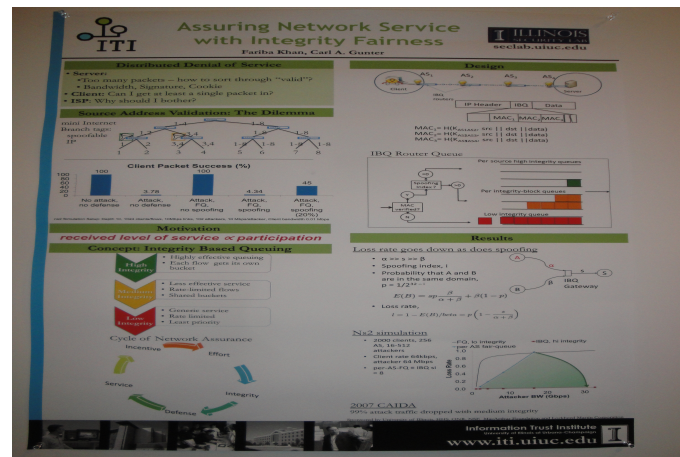


Figure 3: Assuring Network Service with Integrity Fairness

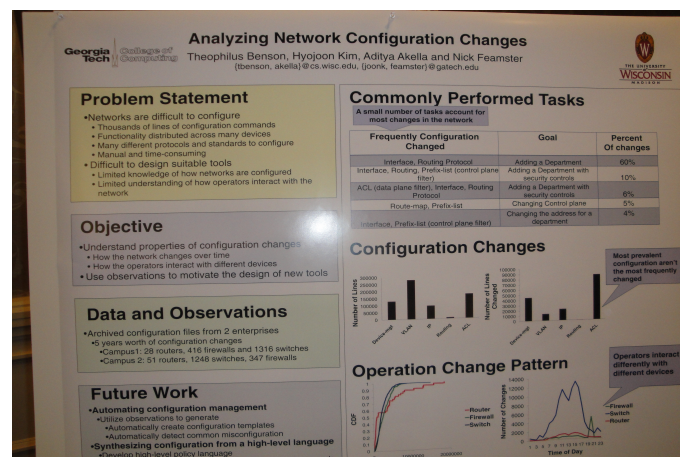


Figure 4: Analyzing Network Configuration Changes

4 Topic of my interest

Multiple papers were presented each above mentioned topics describes latest researches and innovations regarding network technologies. My focus was mobile technologies and wireless network, and following is the abstract of the paper in which I was interested.

4.1 Improving Wireless Network Performance Using Sensor Hints

The rapid growth of mobile wireless devices such as Smartphone's, personal digital assistance, and tablets that are used in a wide range of locations and movement conditions, it has become important for wireless protocols to adapt to different settings over short periods of time. The paper discusses about the performance of wireless network performance both of static and while on the go. In static settings with stable channel conditions perform well while mobile settings with changed channel conditions perform poorly by the network protocols. Condition adaption under which communication is occurring, the authors propose the use of external sensor hints to augment network protocols. Variety of sensors include GPS, accelerometers, magnetic compasses, and gyroscopes embedded in Smartphone's and tablet devices, provides the clues about the device's mobility state and its operating environment. Wireless protocol architecture is presented in this paper that integrates sensor hints in adaptation algorithms.

5 Interview

Two interview was made with the attendees for the conference. Few detail and discussion are as under:

5.1 Interview One

Klaus Steding-Jessen one of the conference attendee from Brazil, he already done his Ph.D. and attending this conference since last four years. Klaus was inspired from NSDI conferences and also presented papers in previous years. I have useful discussion with him on latest technologies and current issues in network. While my inquiry from Klaus about the topic that are most important about today's network issue, he suggest me to work on IPv6. According to Klaus, IPv6 is the problem that soon the world will face when they shifting from IPv4 to IPv6. According to him working on IPv6 can open

new dimensions that leads toward new research.

5.2 Interview Two

I meet with Jason Li, who is also one of the attendee of this conference. Jason is also Ph.D. and working as Director, Networks and Security in Intelligent Automation Inc. in Rockvill, Maryland, USA. Jason is also attending NSDI regularly and keen to know about latest research in network field. He suggest to work with network security, according to him secure network is the most important concern and crucial issues and most be given due diligence. Jason Li was also willing to offer me summer job in his company but due to work permit problem I could not made it.

6 Conclusion

The conference was structured very well and arrangements regarding accommodation and managements during the session was top-drawer. Selection of the topics were widen vide and discussed all the current issues regarding network and its designing. I was wondered that the important topic like IPV6 was not given much importance and little attention was paid on this crucial issue. Overall that was good experience and provided good deal of motivation towards network related current issues and researches and get me into depth of networks and design. I will suggest universities to send more students so that they may get idea to latest research in this field and observe current hot topics. At the end I would like to thanks to NUUG Foundation that make it possible for me to avail such a opportunity. I would also like to thanks to my course coordinator who always encourage and motivate me to attend and get benefit from this golden opportunity.