

LISA 14 conference  
Sheraton Seattle Hotel

LISA attendees

2014

# 1 Introduction

This report is written by eight students from the Master's program *Network and system administration*, which is a collaboration program between the *University of Oslo* and the *Oslo and Akershus University College of Applied Sciences*. The report will contain information about the conference, *LISA14*, the volunteer work and some additional information. This year, *LISA14* is held at the *Sheraton Seattle Hotel* at the west coast of the US in Seattle.

*LISA* (Large Installation System Administration Conference) is a conference for Systems administration, focusing on the large spectrum of fields which a system administrator has to deal with. The conference is organized by the *USENIX Association*, in cooperation with the *League of Professional System Administrators* (*LOPSA*), with this years conference being the 28th conference since its inception, and is back in Seattle (WA) for the second time where the first one being in back in 1999.

## 1.1 Attendance

This years conference had attendees from a significant part of the system administration industry. This includes representatives from companies like Google, Facebook, Redhat, Openstack, and Amazon with multiple individuals from each of them.

### 1.1.1 Students who attended

- Emil Golinelli
- Lars Haugan
- Morten Iversen
- Ratish Mohan
- Alexander Paulsen
- Gyorgi Stoykov
- Tim Sæterøy
- Noha Xue

## 2 Volunteer work at LISA 14

When hosting a large conference like LISA, with an estimated number of about 1000 attendees, there are a lot of administrative and organizational tasks that needs to be handled. The volunteers were given a number of responsibilities and tasks to ensure that the conference was completed without any major issues.

### 2.1 Preparing promotional bags

Prior to the start of the conference, the volunteers was set to the tasks of stuffing promotional bags with the conference program along with pamphlets and brochures from USENIX sponsors. A total number of approximately 1200 bags was stuffed.

During the stuffing, some materials was omitted and therefore required restuffing of all the 1200 bags. This occured multiple times, but it was done promptly each time.



Figure 1: The volunteers stuffing the bags. Emil is missing in this picture (He snapped the picture).

### 2.2 Badge pick up booth

One of the most significant task that was performed at LISA was to handle the badge pick-up booth. The main responsibility for this task was to politely greet the attendees, hand them their badge and explain how the badges and the contained

tickets and vouchers were used. Prior to this, an introduction and training was given by the USENIX staff member, Julie Miller with the assistance of Howard Lem, a long time veteran of LISA volunteering.

Toni Veglia, also a USENIX staff member, was originally the one who was supposed to train and manage the volunteers, but unfortunately she came down with a bad cold and was therefore forced to recuperate in her hotel room.

The fact that this booth was one of the first encounters with the conference for the attendees made it imperative to greet the attendees, answer their questions and accommodate their issues as good as possible to ensure the best possible experience for the attendees.

At peak times, this task proved to be the most stressful task to handle due to many attendees arriving in bursts. Combine this with the fact that some names are difficult to locate and a pretty hectic situation is inevitable. After some experience, this tasks turned out to be both manageable and fun.



Figure 2: The badge and t-shirt pickup booths. From left: Ratish Mohan, Emil Golinelli, Noha Xue, Howard Lem, Julie Miller

### 2.3 T-shirt handout booth

The t-shirt handout booth was located right next to the badge pick-up booth and was staffed by 1 or 2 volunteers depending on the work load. This booth handled the logistics of handing out t-shirts in addition to keeping the count of the number

of handouts performed. Also true for this booth, being polite and accommodating was important.

## 2.4 Hall and room monitoring

The task of monitoring the hall for the exhibition and the rooms for the various conferences, was one of the tasks given to the volunteers. The responsibility of a monitor was to ensure that the badge-holders had valid badges for the given area and to count the number of individuals in the audience for statistics.

## 2.5 Tutorial monitor

The responsibilities of a tutorial monitor included general assistance of the USENIX staff initially and managing the signs denoting the location of each tutorial, talk or workshop. Multiple times of the day the signs had to be switched around with updated information.

This task originally included handing out surveys at the end of each workshop and talks for feedback. But this year USENIX had opted to use an electronic form distributed on e-mail.

# 3 The Conference

The conference started on Saturday the 8th of November, with training sessions and workshops the first three days, and then three days with talks, paper sessions and mini-tutorials.

## 3.1 Categories

The conference was divided into 5 categories:



**Culture**



**DevOps**



**Monitoring  
& Metrics**



**Security**



**System  
Engineering**

Some sessions would arguably be overlapping throughout multiple categories.

### 3.1.1 Culture

This category encompasses the social and community-part of the industry. This includes talks on how to succeed as a system administrator to how to navigate the business world. The talk, *LISA Build: Mind. Blown*, would be such an example. It described the work of the LISA Build team, which experiments with hardware and software to set up a functioning network with a time span of 7 days, and attempt to recruit more participants for the next year Build team.

### 3.1.2 DevOps

This category includes talks which has its roots in the concept of *DevOps*, Development and Operations. It can be described as a software development method where the developers of a certain piece of software also is operating it. Talks in this category covers management and automation of software deployments at a large scale.

### 3.1.3 Monitoring & Metrics

*Monitoring & Metrics* is the category that includes talks about collection of statistics, analysis and, interpretation of metrics. It also covers monitoring, along with talks on how to keep uptime. *Kyrre Begnum* from Oslo and Akershus University College of Applied Sciences in Norway had a training-session on *Statistics for Ops: Making Sense Out of Data*, which belongs to this category.

### 3.1.4 Security

As the name of the category implies, it covers security. Talks and tutorials on best-practices, technologies, and concepts for securing networks and systems. A couple of examples from this category would be: *Defending Against the Dark Arts* and *DON'T PANIC: Managing Incident Response*.

### 3.1.5 System Engineering

A lot of talks belongs to this section. It covers new concepts, ways to model a system and network, and new technologies. Examples from this category:

- Introduction to Ceph
- Linux Performance Tuning

- SDN Essentials
- Why Test Driven Development Works for SysAdmins

### 3.2 Training sessions



Figure 3: Branson Matheson giving his talk on the Dark Arts

The training sessions functioned as tutorials for various topics within the given categories described above. These sessions were instructed by well known experts in their respective fields, with each field corresponding to a category. The goal of these training sessions were for the attendees to learn enough about a topic to be able to go back home/work and implement the new found knowledge in a private or work environment.

One example of a training session would be the *Defence Against the Dark Arts* tutorial, which was given by the Director of IT for Blackphone, Branson Matheson. The tutorial focused on the following topics:

- Understanding an attack from beginning to end
- Security Podiatry Social Engineering detection and prevention
- Detecting undesirable network and server behavior
- Detecting penetration attempts and successes, and stopping them

- Raising awareness

The talk itself was littered with humour as well interesting information about various techniques, elaborating on *Penetration testing* (pentesting) and social engineering to evaluate the security. The talk also included information about multiple security related software that one could use to build a working security toolkit.

The goal for this session, was to make the attendants talk to their peers and higher ups and make them more aware of their environment and what they talk about and to who they talk with.

### 3.3 Workshops

None of the volunteers attended any workshops at LISA14, but the workshops was described as a practical, more hands down, and interactive session compared to conventional talks.

### 3.4 Conference talks

The conference talks were : Invited Talks, Mini-Tutorials, Panels, Refereed Papers and Vendor Talks.

Conference talks were shorter sessions, with more specific topics than the whole or half day training sessions. When attending these sessions one could expect more talk about the specifics of the topic and less in-depth background of the topics. As a result, some talks like, "IP Traffic Visualizers from Utah State University", there were more of a hands down demonstration of the software setup in the LISA lab for visual network traffic monitoring instead of purely describing the technology.

Source code and more information about the aforementioned software can be found at the [Github account](#) for IT security work done at the Utah State University.

### 3.5 Exhibition

During the conference, two days of LISA consisted of LISA Expo. The LISA Expo was an exhibition where different IT companies set up stands promoting their products and services. Some stands were more notable than others, in particular the Google stand with their quest for the pins. This quest involved collecting pins in a online quiz with questions relevant for a system administrator. By answering correct on 4 questions one could collect in total 5 pins and enter the competition for various Google prizes like the Nexus 7 or a Chromebook. Other stands also did

various competitions which ended up with one lucky volunteer going home with a GoPro camera.

On the stands there were plenty of free promotional items, including a lot of t-shirts, pens and other promotional goods. The Cambridge University booth had a questionnaire which had a remote model helicopter as the gift for completing it.

Among the vendors participating, there were non-profit organizations, like the Free Software Foundation, the FreeBSD Foundation and the Electronic Frontier Foundation. These companies were not necessarily promoting their products, but rather their ideological cause for system administrators and others working with or using IT in their daily lives.

### **3.6 LISA Build**

For the first time ever, this years LISA included a Build team which were responsible for providing a high quality wireless network infrastructure for the conference participants. This included the setup of the firewall, switches and access points. This were done by a voluntarily group of build members, and other people joining along the way. Lars were the first day helping with the initial server configuration of the firewall, as he had experience with CentOS and the configuration therein.

## **4 After hours**

### **4.1 Birds of a feather**

The tradition of having birds of a feather (BoF) sessions at LISA is alive and well. BoFs are informal meeting arenas without planned agendas where like-minded can gather for either technical or social sessions.

Regular topics include students or young system administrators meeting for social bonding, organizations who have their (yearly) meetups such as LOPSA or vendors reaching out to customers with drinks and food.

One BoF was specifically made for us students, namely students/Young Professionals Meetup. Here the students from Norway met other students and workers from other countries and companies, like Google. A couple of industry veterans also showed up, and contributed with their knowledge and experience to the discussions.

In addition to purely technical or social BoFs there were the more unusual lock picking BoF. Training locks and picks were supplied and the more adventurous

ones got the chance to challenge themselves with proper locks with accompanying prizes if successfully picked open.

## 4.2 The Reception



Figure 4: The reception at the EMP museum

The conference reception was held Thursday evening at the EMP (Experience Music Project) museum in Seattle. Everyone who paid for the privilege were invited. The museum had a lot of interesting exhibitions, including a sound lab with live instruments for the visitors to play at their own leisure. A couple of the volunteers along with some employees from Google played under the nickname "Beatless", and had their first and final gig.

In addition to the default exhibitions at the EMP museum, the museum had an ongoing indie gaming showcase with several computers and consoles which visitors could play at.

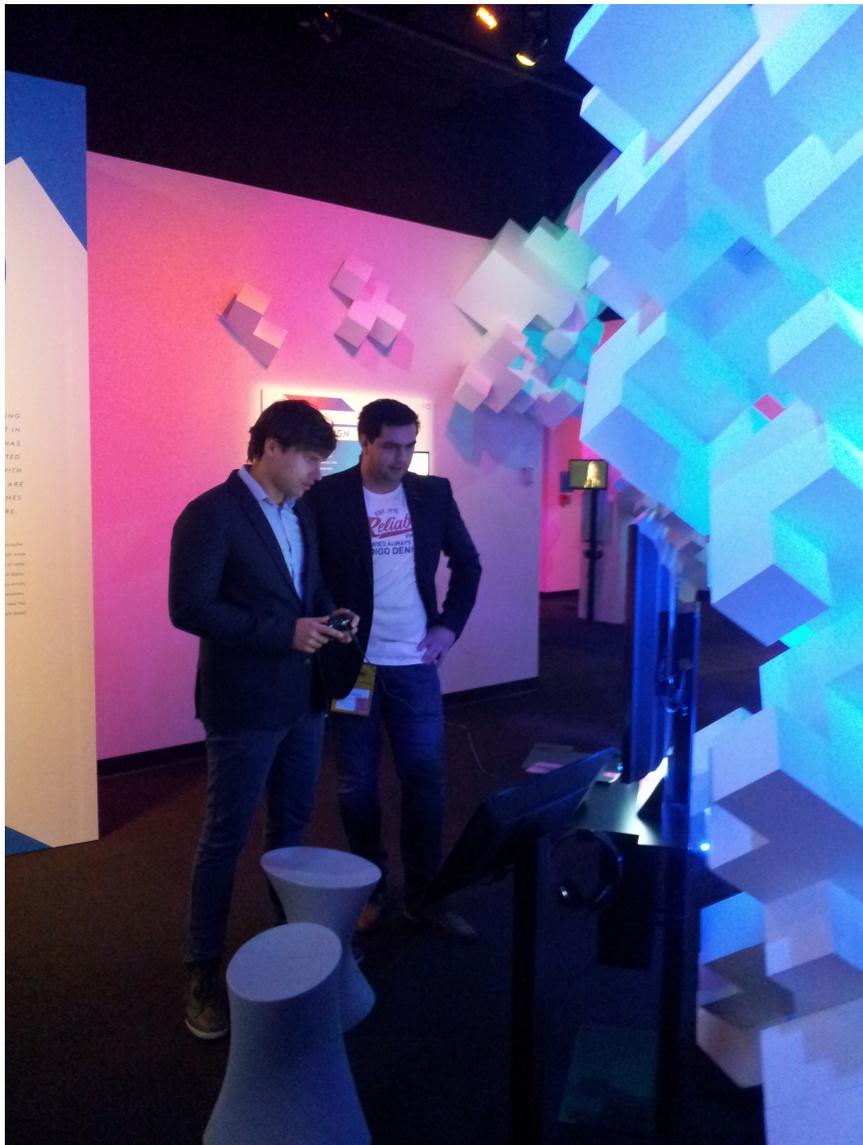


Figure 5: Alexander and Lars playing indie games at the EMP museum

## 5 Epilogue

For most of us the conference was first experience, with the added experience of traveling to the US for several us.

The LISA is one of the biggest conferences in the network and system administration field, and it was both a new and positive experience for us. We appreciate the opportunity given and are happy for the chance to attend and meet

with people who are part of the leading IT industry companies.

We would like to thank the two organizations and individuals for allowing us to take part of LISA 2014:

- USENIX for hotel, gold passport and access to staff food, drinks and events.
  - Hilary Hartman.
  - Casey Henderson.
  - Julie Miller
  - Camille Mulligan.
  - Derron Thweatt.
  - Toni Vergali.
- Howard Lem for guidance as a volunteer.
- NUUG for covering airplane tickets and transportation fees.
- Kyrre Begnum and Hårek Haugerud for giving us the opportunity to attend the conference.



Figure 6: View of Seattle from the Sky View Observatory at the Columbia Center; the highest public observatory on the west coast