

# Lars Strand

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## CONTACT INFORMATION

Address: Frydenlundbakken 12, 3474 Åros, Norway  
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Email: [lars.strand@gnist.org](mailto:lars.strand@gnist.org)  
Born: 16. December 1978  
WWW: Private: <http://www.larsstrand.no/>  
Marital Status: Married  
Children: Marius (b. 2012)



## EDUCATION

### August 2007 – July 2011

**Ph.D. in Computer and Network Security** Norwegian Computing Center / University of Oslo  
Research fellow for a PhD degree at Norwegian Computing Center (at 75% capacity), within the research area of network security and VoIP, with special focus on the SIP protocol. Thesis title: "*Advancement towards secure authentication in the Session Initiation Protocol*".

### January 2003 – November 2004

**M.Sc. in Computer Security** University of Oslo  
I completed a M.Sc. at the Department of Informatics, University of Oslo, Norway. In my thesis I focused on network security and implemented a distributed firewall in close cooperation with the Norwegian Defence Research Establishment (FFI). Full title: "*Adaptive distributed firewall using intrusion detection*".

### August 2000 – December 2002

**B.Sc. in Programming and Computer Networks** University of Oslo  
I completed a B.Sc. at the University of Oslo with courses in computer networks and programming.

### August 1997 – May 2000

**Minor degree in Philosophy** University of Oslo  
I completed a minor degree in philosophy with two years philosophy and one year political science. In my thesis I compared Buddhist ethics with western consequentialism. Full title (Norwegian): "*Er buddhistisk etikk konsekvensialistisk?*".

## WORK EXPERIENCE

### Remunerated

#### Januar 2012 – present

##### Chief Project Manager ICT

Nofas AS  
Responsible for evaluation of our clients R&D projects and describing the new technology in applications or project plans. My client portfolio consist of innovative R&D companies within the ICT industry. I also have the professional responsibility for our ICT group at Nofas.

#### September 2013 – present

##### Board Member

Nofas AS  
Board member elected by the employees of the company.

#### Januar 2012 – present

##### Owner/Consultant

Strand Konsulenttjenester  
Various freelance/consulting work.

#### September 2008 – December 2011

##### Senior System Consultant

Redpill Linpro AB  
Senior technical free and open source (Linux) consultant and course instructor. Core member of both Network and Security Technical Excellence Area (TEA) groups. Worked at 25 % capacity while taking my PhD.

#### April 2006 – May 2008

##### Board Member

Linpro AS  
Board member elected by the employees of the company.

#### November 2004 – August 2008

##### Systems Consultant

Linpro AS  
Technical free and open source (Linux) consultant and course instructor. I was responsible for keeping several sysadmin courses up to date and created several courses from scratch. I worked with the network and infrastructure (Linux) for customers like "The Government Pension Fund of Norway", "Siemens Business Services" and "Ergo".

**2003 – 2004**

**Research Assistant (summer internship)**

Thales Communications AS

Development of a prototype for authentication of nodes in a ad-hoc network using 802.1X, 802.11i, OSLR and MobillIPv6 in a Linux environment.

**September 2000 – November 2004**

**System Administrator (20 % part time)**

University of Oslo

I worked on the Linux/Unix systems at the University of Oslo on a part time basis. Programming in PHP, MySQL and scripting.

**June 2000 – July 2001**

**Support Engineer (40 % part time)**

Telenor Nextra AS

I worked part time as a support engineer solving customer problems related to Internet connection and popular Internet services.

Voluntary

**2000 – present**

**FTP System Administrator**

University of Oslo

I'm member of the sysadmin team responsible for maintaining Norway largest public ftp server [ftp.uninett.no/ftp.uio.no](http://ftp.uninett.no/ftp.uio.no).

**June 2003 – August 2004**

**Author**

Linux Documentation Project

As part of the Linux Documentation Project, I wrote and maintained the [Mobile IPv6 HOWTO](#), [Optimized Link State Routing Protocol \(OLSR\) IPv6 HOWTO](#) and the [802.1X Port-Based Authentication HOWTO](#).

**April 2002 – Januar 2003**

**Board Member**

Oslo Linux User Group (OLUG)

Founding member, and board member of OLUG.

**1998 – 2004**

**Student Activities**

University of Oslo

I was involved in various student activities/societies on all levels of my higher education. Both professional and social.

TEACHING  
EXPERIENCE

**April 2014**

**Guest Lecturer**

University of Oslo

I gave a guest lecture at the master course "INF5050 – Protocols and routing in the internet" on the topic [VoIP using SIP](#).

**2007 – 2011**

**Course Instructor**

Linpro

I created and teached numerous courses during my years in Linpro/Redpill Linpro.

**Autumn 2003 and 2004**

**Teaching Assistant and examiner**

University of Oslo

I worked as a teaching assistant and examiner at a programming course in Python, Perl and shell scripting.

**March 2003**

**Guest Lecturer**

University of Oslo

I gave a two-hour guest lecture on [free and open source software and its consequences for government administration](#) at a Department of Political Science master course.

**July 2001**

**Lecturer**

Telenor Internett

I created and held a two day course in [Linux and Linux networking](#) for the technical staff at Telenor Internett.

CERTIFICATIONS

MySQL Core Certification, <http://www.mysql.com>

MySQL Professional Certification, <http://www.mysql.com>

Red Hat Certified Technician (RHCT), <http://www.redhat.com>

Red Hat Certified Engineer (RHCE), <http://www.redhat.com>

Linux Professional Institute level 1 (LPIC1), <http://www.lpi.org>

SKILLS	<p>I've been interested in computers as long as I can remember. I vividly remember when I bought my first computer in 1993. I stumbled across Linux in the late 90ies and have used it daily ever since. I will claim my Linux and network skills are thorough. My programming experience are primarily Perl, Python and Bash.</p> <p>Languages: Norwegian, English.</p>
PUBLICATIONS	All conference papers were presented and defended at the respective scientific conference.
2011	<p>Lars Strand and Wolfgang Leister. "<a href="#">Advancement towards secure authentication in the Session Initiation Protocol</a>" <i>International Journal on Advances in Security</i>, ISSN 1942-2636. vol. 4, no. 3&amp;4, 2011.</p> <p>Lars Strand, Wolfgang Leister and Alan Duric. "Migration towards a more secure authentication in the Session Initiation Protocol" Accepted for publication at <i>The 5<sup>th</sup> International Conference on Emerging Security Information, Systems and Technologies</i>, (SECURWARE2011), Aug 2011, Nice, France. <b>Awarded best paper.</b></p> <p>Lars Strand, Josef Noll and Wolfgang Leister. "Generic Security Services API authentication support for the Session Initiation Protocol" <i>The 7<sup>th</sup> Advanced International Conference on Telecommunications (AICT2011)</i>, Mar 2011, St. Maarten, The Netherlands Antilles.</p> <p>Lars Strand and Wolfgang Leister. "Improving SIP authentication" <i>The 10<sup>th</sup> International Conference on Networks (ICN2011)</i>, Jan 2011, St. Maarten, The Netherlands Antilles.</p>
2010	<p>Lars Strand. "VoIP lab as a research tool in the EUX2010SEC project" <i>Norwegian Computing Center Technical Report DART/08/10</i>, April 2010.</p> <p>Lars Strand and Wolfgang Leister. "A Survey of SIP Peering" <i>NATO ASI – Architects of secure Networks (ASIGE10)</i>, May 2010, Genova, Italy. <b>Invited paper.</b></p> <p>Anders Moen Hagalisletto and Lars Strand. "Designing Attacks on SIP Call Setup" <i>International Journal of Applied Cryptography</i>, ISSN 1753-0563, Volume 2, Number 1, July 2010.</p>
2009	<p>Lothar Fritsch, Arne-Kristian Groven, Lars Strand, Wolfgang Leister and Anders Moen Hagalisletto. "A Holistic Approach to Open Source VoIP Security: Results from the EUX2010SEC Project" <i>International Journal on Advances in Security</i>, ISSN 1942-2636, vol. 2, no. 2&amp;3, 2009.</p> <p>Elin Sundby Boysen and Lars Strand. "Security analysis of the SIP Handover Extension" <i>The 2<sup>nd</sup> Norwegian Information Security Conference (NISK2009)</i>, Nov 2009, Trondheim, Norway.</p> <p>Anders Moen Hagalisletto, Lars Strand, Wolfgang Leister and Arne-Kristian Groven. "Analysing Protocol Implementations" <i>The 5<sup>th</sup> Information Security Practice and Experience Conference (ISPEC2009)</i>, Apr 2009, Xi'an, China.</p> <p>Lothar Fritsch, Arne-Kristian Groven and Lars Strand. "<a href="#">A holistic approach to Open-Source VoIP security: Preliminary results from the EUX2010SEC project</a>" <i>The 8<sup>th</sup> International Conference on Networks (ICN2009)</i>, Mar 2009, Cancun, Mexico. <b>Awarded best paper.</b></p>
2008	<p>Anders Moen Hagalisletto and Lars Strand. "Formal modeling of authentication in SIP registration" <i>The 2<sup>nd</sup> International Conference on Emerging Security Information, Systems and Technologies (SECURWARE2008)</i>, Aug 2008, Cap Esterel, France.</p>
TALKS	<p>I have given several talks over the years, with topics ranging from computer and network security, free and open source software, software quality, network protocols and databases. For a selection, please consult: <a href="http://larsstrand.no/index.php?action=writings">http://larsstrand.no/index.php?action=writings</a></p>
PROFESSIONAL ACTIVITIES	<p>Technical Program Committee, <i>The International Conference on Networks (ICN)</i>, 2010, 2011, 2012, 2013.</p> <p>Technical Program Committee, <i>The International Conference on Emerging Security Information, Systems and Technologies (SECURWARE)</i>, 2009, 2010, 2011, 2012, 2013.</p> <p>Session chair, <i>The 8<sup>th</sup> International Conference on Networks (ICN)</i>, 2009, 2011.</p> <p>Session chair, <i>The 2<sup>th</sup> International Conference on Emerging Security Information, Systems and Technologies (SECURWARE)</i>, 2008.</p>

## INTERESTS

When I'm not in front of my computers, I like to exercise cycling and running. I try to attend several cycling and running competitions each year, including "Grenserittet", "Oslos Bratteste", "Landfallhytta opp". My newest challenge this year was competing in "Østfold Triatlon".

Whenever I have the time, I blog about my technical experiences here <http://blog.larsstrand.no/>. I also brew a considerate amount of wine each year.

I'm also interested in philosophy of mind and -religion. But most of all, I enjoy spending time with my wife and son.

## REFERENCES

Available on request.