

# Alexandre J. D. Dulaunoy

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Born: May 14, 1977—St-Nicolas, Belgium

Nationality: Belgian

OpenPGP key fingerprint: 3B12 DCC2 82FA 2931 2F5B 709A 09E2 CD49 44E6 CBCD

## Objectives

To be immersed in an open environment that promotes Free Software philosophy, information security and innovation,

To share, extend and use my knowledge in that open environment.

## Areas of specialization

Information and Network Security, Information Society & Information Retrieval

## Professional Experience

- 05 2009 – present      Manager, Global IT Security and Security Architect - SES S.A., Luxembourg
- 05 2004 – 05 2009      IT Security Officer (ITSO) - SES ASTRA S.A., Luxembourg
- 07 2001 – 04 2004      Co-Founder and Chief Technology Officer (CTO) - Conostix S.A., Luxembourg
- 07 2000 – 07 2001      Senior Security Consultant - Ubizen S.A. (now Cybertrust), Luxembourg
- 09 1998 – 06 2000      Network and System Engineer - IBT S.A (now Sylis), Belgium
- 09 1997 – 05 2004      Freelance IT consultant - Various Internet Service Provider, Europe

## Teaching Experience

- 2003 – present      Lecturer in Information Security, University of Metz (MIM, Paul Verlaine), France
- 2006 – present      Lecturer (Chargé de Cours Associé) in Information Security, University of Luxembourg

## Associative and Research Working Experience

- 2003 – present      Co-Founder and Secretary, Computer Security Research

and Response Team Luxembourg (CSRRT-LU) ASBL, Luxembourg

2001 – 2005

Workgroup leader, GT-SECSI, CLUSSIL ASBL

2001 – present

Co-Founder and President, Association Electronique Libre ASBL, Belgium

2000 – present

Associate Member, Free Software Foundation, Inc

2004 – present

Professional Member, Association for Computing Machinery (ACM)

## Computer Science Knowledge & Skills

### Programming Language

Perl ..... CPAN Author, Programming/Debugging Daily on Unix and WIN32  
Python ..... Programming/Debugging Daily on Unix  
C ..... Programming/Debugging Regularly on Unix  
Ruby ..... Programming Frequently on Unix  
Objective C ..... Programming Rarely on Unix  
Lisp ..... Programming Rarely on Unix or more Often in Emacs Lisp dialect  
Assembler (IA-32 or 680x0) ..... Debugging/Programming Regularly for Reverse Engineering

### Information Security

In-depth knowledge (theoretical and practical) of network and system security,  
In-depth understanding of network, system and information security policies (e.g. IETF RFC2196, ISO/IEC 27001 and COBIT 4.0),  
In-depth knowledge in the legal implication of information security (e.g. EUCD/DMCA, Privacy Regulation, CNSSP-12, ITAR)  
In-depth knowledge and practical usage of reverse engineering of GNU/Linux, Unix software and WIN32 software,  
In-depth knowledge (including large-scale deployment) of network packet filtering and deep-packet inspection technologies,  
Extensive knowledge of cryptographic algorithms and cryptosystem/protocols,  
Practical knowledge of various protocols and message formats (e.g. OpenPGP, OpenSST, XML-DSIG/Enc),  
Practical management of OpenPGP infrastructure with pks and sks,  
X.509 certificate management theory and practice.

### Internet and Standard Process

RIR and LIR operation ..... Good Experience (already operated two LIRs)  
IETF ..... Good Experience of the Standardization Process  
EU Research Framework ..... Good Experience (participated in FP5, FP6 and FP7 projects)

### Network Protocols

I'm a regular reader (and sometime author) of Internet-Drafts and RFCs always trying to find the boundaries between the protocol specification and their respective implementation.

IPv4 ..... Extensive Experience (including IP stack analysis)

IPv6 ..... Good Experience (including integrating ISPs in global IPv6)  
 Dynamic Routing Protocols ..... Especially BGP and OSPF  
 TCP ..... Extensive Experience (including TCP stack analysis)  
 Tunneling Protocol ..... Extensive Experience (including OpenVPN, IPSec, GRE)  
 Application Protocol ..... Especially HTTP, TLS/SSL, SMTP  
 HTTP implementation ..... Extensive Experience in Apache HTTPD, HTTP proxying and related technologies

## Operating Systems

Managed, operated, debugged and “hardened” various type of operating systems in hostile environment.

GNU/Linux ..... Extensive Experience including Kernel  
 OpenBSD ..... Extensive Experience including Kernel  
 CISCO IOS ..... Extensive Experience including Advanced Security  
 Nokia IPSO ..... Extensive Experience  
 Embedded Operating System ..... Extensive Experience including Deployment  
 Solaris,AIX and HP/UX ..... Good Experience (especially in security hardening)  
 Microsoft Windows ..... Good Experience (especially in reverse engineering)  
 OpenVMS ..... Some Experience

## Descriptive Language

XHTML, LaTeX, XML and Postscript Language.

## Publications & Contributions

### Papers and Publications

- 2008 G Wagener, A Dulaunoy, “Towards an estimation of the accuracy of TCP reassembly in network forensics”, *Proceedings of F2GC-08*.
- 2007 G Wagener, R State, A Dulaunoy, “Malware behaviour analysis”, *page 279-287 of Journal in Computer Virology*.
- 2007 A Dulaunoy, “Geographic Location in Syslog”, *draft-dulaunoy-syslog-geolocation-00, Internet-Draft*.
- 2004 A Dulaunoy, “Integrating Honeynet Research in Computer Security Incident Response Teams (CSIRTs)”, *Proceedings of CSIRT meeting*.
- 2003 X Zhang, A Dulaunoy, C Meinel, “Enhance OpenSST Protocol’s Security with Smart Card”, *Proceedings of LADIS WWW/INTERNET’03, 2003*.
- 2003 A Dulaunoy, “OpenSST : Open Simple Secure Transaction. Une approche de réduction de la complexité pour les transactions électroniques”, *Proceedings of SAR 2003*.
- 2002 A Dulaunoy, “A XML Schema for the OpenSST message format. ”, *Internet-Draft*.

### Free Software Contribution

- current I have contributed to various free software and computer security project. I also developed various free software like the Minimalist Queue Services or Forban. You can check my webpage or <http://www.gitorious.org/~adulau> if you want to see my current free software projects.

### Awards and Patents

- 2008 (pending) A Dulaunoy, M Noll, SES ASTRA, Enhancing Satellite Bandwidth with User-driven Content Recommendation.
- 2008 (published) A Dulaunoy, M Noll, SES ASTRA S.A., Method For Controlling The Transfer of Data Entities from a Server Unit

on a Communication Channel. (WO/2009/080650) - (EP2073500)

## Education & Qualification

CCSE - Check Point certificate of achievement (CCSE) Firewall-1.

CISCO-CCNA and CISCO-ACRC, CISCO-CMDTS.

BSC in Computing (1 year only) at INPRES/Liège/Belgium.

**General Certificate of Education** in Scientific Mathematics, Athénée Royal de Huy, Belgium.

## Language Skills

French : Native language.

English : Read, written and spoken good.

German : Good understanding.

Luxembourgish : Basic understanding.

## Miscellaneous

Driving License Category B.

Hobbies : Electronic Art and Music, Reading and Gardening.

Sports : Swimming and Caving.