

Andreas Jaggi

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Objective

Contribute to interesting projects in an innovative environment allowing me to prove my skills, extend my knowledge and solve challenging problems.

Value Offered

More than 10 years experience building Network Security Systems, and a solid knowledge in operating globally distributed services. An extremely motivated and versatile person.

Work Experience

Head of WAN Security, SD-WAN at Open Systems AG, Zürich / 2018 – present

Key responsibilities

- Technical product responsibility for the SD-WAN Access and Security services
- Service Design and Software Architecture
- Product Evolution and Roadmap planning
- Team Lead

Key achievements/projects

- Global Network Quarantine mechanism for malicious internal hosts
- Deep-Packet-Inspection Integration
- Global Network User Awareness Architecture

Member of the Mission Control team for operating and monitoring over 6000 security systems worldwide.

Lead Engineer, Network Services at Open Systems AG, Zürich / 2015 – 2018

Key responsibilities

- Technical product responsibility for the Firewall, BGP, DHCP, Switching, Wireless and Cloud Connectivity services
- Service Design and Software Architecture
- Product Evolution and Roadmap planning
- Team Lead

Key achievements/projects

- Design, Architecture and Implementation of Next-Generation Firewall Engine with Global Policy Management
- Cyber Threat Intelligence Creation, Research and Analysis
- Design and Implementation of Application Awareness in the SD-WAN Network Security Stack
- DNS Traffic Inspection Engine for realtime Analysis and Protection
- BGP based DDoS Mitigation
- Implement IPsec Attack Detection and Protection

Member of the Mission Control team for operating and monitoring over 5000 security systems worldwide. Leading the APAC Mission Control operation center during three tours in the Sydney office.

Security Engineer, Security Gateway at Open Systems AG, Zürich / 2011 – 2015

Key responsibilities

- Subject-matter expert for the Routing and Firewall Software Stack
- Security Vulnerability Monitoring and Mitigation
- Linux Kernel customization and maintenance

Key achievements/projects

- Next Generation Data Center Network and Security Architecture
- Introduction of IPv6 into the software stack and datacenter concepts
- Full automation of the build system for building the base OS and addon packages
- Fully automated system upgrade and patch management and deployment pipeline

Member of the Mission Control team for operating and monitoring over 2500 security systems worldwide. Leading the APAC Mission Control operation center during two tours in the Sydney office.

Security Engineer, Platforms at Open Systems AG, Zürich / 2009 – 2011

Key responsibilities

- Development and Maintenance of a custom secure operating system based on Linux
- Initiate Security Vulnerability Management
- Patching and updating of the Linux and Solaris based systems
- Maintainer for the routing software, networking infrastructure and base platform



Key achievements/projects

- Introduced regular patch cycles and process
- Fixing H.323 Videoconferencing multi-stream issues in the Linux kernel connection tracking

Member of the Mission Control team for operating and monitoring over 1500 security systems worldwide.

Developer at KIS, Swiss Federal Institute of Technology (EPFL), Lausanne / 2004 – 2008

- developed Web applications and prototypes for new projects (inForm, Wiki, News-CMS)
- migrated existing projects to standards-compliant XHTML/CSS
- optimized the performance of critical PHP scripts
- improved the usability of Web applications using Web 2.0 technologies
- worked with XHTML, CSS, XML, XML-RPC, SOAP, MySQL, PHP, Python, wxPython, Shell, Smarty, PEAR, LDAP, AJAX, JavaScript, Prototype and Subversion.

Internship at NovaWave Technologies, Redwood City, California / Summer 2007, Summer 2008

- worked on an embedded Linux system controlling a near-infrared laser: solved memory restriction problems, transformed the XHTML/CSS/JavaScript GUI and the C++/SOAP server from prototype state to a final product for Stanford University, identified potential security holes, fixed various performance issues in the application design and the current implementation, introduced Python unit tests for the SOAP interface, improved the build and deployment process to allow one-click-deployments over TCP/IP
- administrated and secured the internal network (SMTP, SMB, NFS, DNS, Nagios) and the production webserver, setup a development server (Subversion, Trac, Debian Linux), introduced a backup solution
- did research on FPGA/software processor devices to evaluate their suitability for future products or research projects

Project Experience

Open Source Projects – github.com/x-way

Master Thesis Project at Patton-Inalp Networks, Niederwangen / 2008 – 2009

Measured and analyzed the performance of Layer 4 Switching in Linux with IPTables for the usage in VoIP Gateways. Developed a custom Layer 4 Switching Kernel module with improved rule handling performance.

Broadcom 43xx Linux Driver / Summer 2005

Part of the team who developed the Linux driver for the Broadcom bcm43xx wireless chip using reverse engineered specifications. It has been included in the Linux Kernel since 2.6.17.

Key Skills

Programming languages: Golang, Perl, C/C++, Python, Ruby, Shell

Operating Systems: Linux, Mac OS X

Technologies: Linux Kernel Networking, Netfilter, TCP/IP, LDAP, RADIUS, 802.1x, 802.11, VPN, BGP, OSPF, IPv6, IPSec, DPI, OpenVPN, SD-WAN, GRPC

Education

2000 – 2003

Bilingual Swiss Matura (German-French), Thun-Schadau Gymnasium

2003 – 2006

Bachelor of Science in Computer Science

Swiss Federal Institute of Technology Lausanne (EPFL)

2006 – 2009

Master of Science in Computer Science, specialization Internet Computing

Swiss Federal Institute of Technology Lausanne (EPFL)

Certifications

CISSP, Mission Control Certified Security Engineer

Languages

German: Mother tongue

English, French: fluent

Personal Data

Citizenship: Switzerland

Date of Birth: 22nd January 1984

Activities

Volunteering with Music festivals as stage technician for concerts and other events.