

Stefan Schmidt

Curriculum Vitae

Experience

- since 12/2020 **Principal Solution Architect Open Source**, *Huawei Technologies Germany*, Home Office, Braunschweig.
Part of a team of principal technologist establishing an Open Source Technology Center in Huawei Europe. Started the Eclipse Oniro project from scratch. Working with partners, internal stakeholders and the open source community to define requirements for the Oniro technology roadmap. Involved in most technical decisions from architecture and planning to development, review and testing on a daily basis. Using the Yocto/OpenEmbedded build infrastructure for embedded Linux and Zephyr RTOS builds. Upstreaming into open source projects and working within these communities on new functionalities and fixes. My focus is on the connectivity domain in Oniro. Enabling it for various industrial and smart home IoT use-cases. For example, building a transparent gateway blueprint with OpenThread and Matter covering Linux and Zephyr. Participating in the Matter working group technical meetings at the Connectivity Standards Alliance. Presenting the project at conferences and exhibitions.
- 06/2017–09/2020 **Technology Manager & Open Source Group Team Lead**, *Samsung Electronics Germany*, Home Office, Braunschweig.
Team lead of the Open Source Group (OSG) in Samsung Research UK. Overseeing two teams, with up to 6 direct reports, working on different Open Source projects. Setting the technical roadmap and working with the teams to get it executed. Reporting to VP and Managing Director level, as well as stakeholders in our headquarter. The role involves Open Source technology sensing, Open Source strategy as well as contribution planning. On the technical side I am a maintainer in the Enlightenment Open Source project, leading the CI and QA efforts and acting as release manager for the project. Engage with our product teams to identify their requirements and work with internal teams and the community to reach these goals. Adapting the projects architecture to support needed features or working on performance improvements would be common themes. EFL is used in the Tizen OS for embedded systems as native toolkit and graphics layer. As ongoing technology sensing I am following the developments of IoT networking protocols. This involves being a Linux Kernel subsystem Maintainer of the ieee802154 networking subsystem, chairing the IoT workshop at the Linux Networking conference for the last 4 years and presenting regularly on these topics at technical conferences like Embedded Linux Conference, Open Source Summits, Linaro Connect, etc.
- 03/2015–06/2017 **Senior Software Engineer**, *Samsung Electronics Germany*, Home Office.
- 11/2013–02/2015 **Software Engineer**, *Samsung Electronics Germany*, Home Office.

- 04/2012–10/2013 **Software Engineer**, *Samsung Electronics Research Institute*, Staines, UK.
Member of the Open Source Group (OSG). Working on the Enlightenment Foundation Libraries (EFL) upstream Open Source project.
- 05/2011–03/2012 **Freelance Software Engineer**, *Linux Foundation*, San Francisco, USA.
Integration of a flashing mechanism based on the Device Firmware Upgrade (DFU) specification into the mainline of the U-Boot bootloader used on embedded systems.
- 05/2010–12/2011 **Freelance Release Engineer**, *BugLabs, Inc.*, New York City, USA.
Build and release engineering work with OpenEmbedded for the BUG 2.0 product. Building a fully cross-compiled embedded Linux system with OpenEmbedded to run OpenJDK for ARM and BugLabs OSGI services above.
- 02/2010–04/2010 **Freelance Software Engineer**, *Germany's national research center for aeronautics and space*, Oberpfaffenhofen, Germany.
Linux device driver development for several sensors deployed as payload on a measurement rocket on a mission in outer space.
- 03/2007–04/2008, 08/2008–03/2009 **Freelance Software Engineer**, *Openmoko, Inc.*, Taipei, Taiwan.
Software development for a Linux based smartphone. Worked on different areas of the system. From driver development over wireless network management to middleware components. Work also included user interface development with the Enlightenment Foundation Libraries. True Startup environment with rapid company growth and pivots to adapt to requirements and user-base.
- 2006–2009 **Freelance Author**, *Linux New Media AG*.
Various articles about Linux on smartphones (see publications).

Free and Open Source Software Projects

- since 2012 **Linux Kernel Subsystem Maintainer**, *Linux-wpan Project*.
Maintaining the IEEE 802.15.4 subsystem of the Linux network stack.
- 2008–2020 **Developer & Release Manager**, *Enlightenment Foundation Libraries Project*.
Long term developer and release manager on the open source project to build a graphical toolkit and window manager.
- 2010–2013 **Maintainer**, *dfu-util Project*.
Maintainer and developer of the dfu-util host utility to flash devices supporting the Device Firmware Upgrade (DFU) specification of the USB forum.
- 2007-2012, since 2020 **Developer**, *OpenEmbedded Project*.
Developing a build system for embedded Linux systems. Used from small hobbyist projects up to large commercial deployments. Nowadays used in the Yocto project of the Linux Foundation.
- 02/2011–06/2011 **Technical Steering Committee**, *OpenEmbedded Project*.
I served as member of the Technical Steering Committee to help bringing OpenEmbedded and the Yocto project together.

10/2005–12/2010 **Core Developer**, *OpenEZX Project*.

Worked on porting a platform of different Linux mobile phones from a 2.4 Linux kernel over to 2.6. Working with a small group of people all over the world and merging the resulting code back into the mainline Linux kernel.

Diploma Thesis

title *IBR-DTN in IEEE 802.15.4-based wireless networks*
supervisors Prof. Dr. Lars Wolf, W.B. Pöttner and J. Morgenroth
description Implementation and evaluation of an IEEE 802.15.4 convergence layer for IBR-DTN with segmentation and neighbor discovery. Work included all layers from hardware and drivers to the IEEE 802.15.4 Linux stack and the related configuration and performance tools and finally the convergence layer of the delay tolerant networking daemon IBR-DTN.

Education

10/2002–10/2011 **Diplom Informatik (sehr gut)**, *Technische Universität Carolo-Wilhelmina*, Braunschweig, Computer science.
Started with Informations-System-Technik, a mixture of computer science and electrical engineering. Changed to computer science to focus on software. Minor in psychology.
10/2001–09/2002 **Compulsory civilian service**, *Retirement home*, Schliestedt.
08/1994–06/2001 **Abitur**, *Theodor-Heuss-Gymnasium*, Wolfenbüttel.

Languages

German native
English Professional working proficiency *Lived in UK for 1.5 years*

Technical Skills

- Linux kernel development (networking, ARM systems, device driver)
- Linux system/core-OS development (libraries, daemons, etc)
- Development in all areas of an embedded Linux system
- Building Yocto/OpenEmbedded based embedded Linux systems
- USB Device Firmware Upgrade (DFU)
- Linux IEEE 802.15.4 networking stack and device drivers
- Thread mesh networking protocol with OpenThread
- Matter IoT networking protocol
- Continuous Integration: Jenkins, Travis CI, GitLab, docker, QA tooling
- Enlightenment Foundation Libraries (EFL) graphical toolkit
- Programming languages: C, C++, Shell
- Build systems: autotools, cmake & meson

Soft Skills

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📄 [stefan-schmidt-84a7266/](#)

- Teamwork Cross-cultural work experience in international teams with people from Europe, North America and Asia.
- Team leading Managed international and distributed teams, as well as Open Source projects.
- Public speaking Spoken at over 45 events about Technology and Open Source topics.
- Event handling Organised various internal and external workshops and developers days.

Publications

- Große Klappe, Linux Smartphone Motorola A780 im Test. Article in German Linux-Magazin 06/2006
- Smart zusammenmischen, Software-Entwicklung für Motorola Linux-Smartphones. Article in German Linux-Magazin 08/2006
- Offene Standards für Smartphones. Article in Linux Technical Review 11
- Diploma thesis: IBR-DTN in IEEE 802.15.4-based wireless networks, 10/2011