

RESUME

Stanislav Lechev

e-mail: af [at] 0xAF [dot] org

DOB: 10 July 1980

Location: Varna, Bulgaria

Education:

- Architecture Science, Technical School for Building and Architecture, Varna.
- Currently studying Computer Sciences (CST) at [Technical University of Varna, Bulgaria](#). (suspended!)

Specialties:

- Linux Developer and Administrator.
- Network Designer and Administrator.
- System, Application, Network and Kernel programming.
- Embedded Development.
- Reverse engineering.
- Microcontrollers (PIC, Atmel, MSP430) programming.

Language:

- Bulgarian
- English

Programming Languages:

- C
- Perl (perl5)
- PHP (not interested)
- Pascal / Delphi (Borland) (not interested)
- Shell Scripting: Bash, Perl, awk, sed
- HTML4 / HTML5 / CSS3 (I'm not a designer, though)
- CGI Scripting: Perl, Bash
- Web Programming: Perl, C
- Web Frameworks: Catalyst MVC Framework, ModPerl
- Javascript/AJAX/JSON Frameworks: jQuery, Bootstrap, etc.
- SQL and NoSQL Databases (sqlite, MySQL, Oracle, CouchDB, MongoDB)
- Assembler (ARM instruction set)

Experienced in:

- Linux System and Network Administrator
- Linux Application and Kernel Programming
- POSIX API and Threads
- Network Protocols and Sockets Programming
- Microcontrollers (PIC, Atmel, MSP430) Programming
- VoIP (SS7overIP - Adaptation Layers and Protocols) (not interested)
- Web Development (Perl primary)
- Network Administrator and Topology Designer
- IPv4 addressing/filtering/(static and dynamic)routing
- Network and System Security Specialist
- RAID Building/Repairing [all levels]
- Reverse engineering (great experience with ARM and VxWorks)

- Embedded Development (C,ASM)
- SCM - Git, Mercurial, Subversion and some outdated (CVS)
- Groupware Services Integration including (but not only): [Kolab](#), Samba, LDAP, Jabber/XMPP, [FreeSwitch \(VoIP\)](#), OwnCloud, etc.

Software and tools I prefer:

- [GNU/Linux](#)
- [KDE \(K Desktop Environment\)](#)
- [Vim](#)
- [Git](#)
- [GCC](#)
- [GDB](#)

Operating systems:

- Linux, General since 1995 (Rolling and source distributions preferred)
- *BSD
- Unix
- Windows 9x/NT/2k/XP/Vista/7 (not interested)
- MS-DOS/4DOS/FreeDOS (not interested)

Other Interests:

- Free Software and Open Source (My Religion)
- Music (Ethno, PsyTrance, Goa, Metal)
- Traveling (do not want to relocate)

Assignments:

- December 2005 - Submersible Consulting & Engineering [SUBCOE] (since now)

Embedded System Developer. Writing Linux Device (Kernel) Drivers for embedded systems (x86/ARM9 SBC). Linux application programming (console/gtk/qt). Client/Server based software for embedded devices.
Network/System Administrator. Web Developer.
For more information about SUBCOE see <http://www.subcoe.com/>

Short review of this assignment:

- Prepare and support a custom, bare metal linux distribution for x86 and ARM based SBCs. Compiled from sources with custom patches for our specific needs.
size of the kernel: 0.8MB, size of the RootFS: 1.2MB
- Custom init, hotplug and update scripts.
The firmware (kernel, rootfs and custom software) is upgraded from USB stick or Network(Web). The images are versioned and support downgrade.
- LAN, WiFi and Bridge devices support.
- Build scripts for the Dev(Host) PC to compile the Kernel, RootFS, custom application software and prepare the upgrade images.
- Kernel modules to support our homemade specific hardware like keyboard, display, speaker, leds, custom boards.
- Specific hardware programming (microcontrollers) - keyboards, display, speaker, leds, sensors, custom boards and other peripherals.
- Protocol implementations - RS232, RS485, Modbus, SPI, I2C, Serial over Bluetooth, Custom protocols over different interfaces.
- Application software interacting via specific hardware - keyboard, display, speaker, leds, custom sensor boards.
- Application software and high-level logic to control different peripherals - motors, pumps, sensors, switches.
- Application software with Threads and Events infrastructure.
- Integrated web server, Web development, JavaScript and Ajax driven SCADA web software.

Used programming languages and tools

- C
 - Bash
 - Custom toolchain/cross-compiler
 - Open-Source libraries
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- January 2005 - Technical University in Varna, Bulgaria (until 2007)

Back to the old assignment. Network and Linux Administrator,
Groupware integration and Administration.

For more information about TU-Varna see <http://www.tu-varna.bg/>,

Short review of this assignment:

- Network Administration.
- Linux Administration.
- Linux Integration.
- Integrating and improving OpenERP to our custom needs.
- Network Traffic analyzing.
- Web based software for statistics and user management.

- April 2004 - SysMaster [VoIP and Networking] (since next work)
Programmer/Developer - VoIP Protocols for linux.
SS7 Over IP Adaptation Protocols (Layers)
Implementing SS7 Protocols and User Adaptation Layers in Linux.
Asterisk based protocols.

For more information about SysMaster see

<http://www.sysmaster.com/>

Short review of this assignment:

- Implementing M3UA Adaptation Layer for Asterisk.

- September 2003 - Technical University in Varna, Bulgaria (since next work)
Network/System Administrator, Major Developer/Assistent of many
projects. Web Developer. Writing Smart SMS based information system providing
community with utility services such as National Electric Company, Water Supply,
Local Heating Company billing information and City Hall (municipality) web and sms based internal
services.

SMS based Banking Notification Services.

For more information about TU-Varna see <http://www.tu-varna.bg/>,

MIS (Mobile Info Services) see <http://www.mis.bg/>

Short review of this assignment:

- Network Administration.
- Linux Administration.
- Linux Integration.

- Web softwares for University custom needs.
- Implementing SMS gateway.
- Implementing Web<->SMS information system.
- Implementing [SMPP protocol](#).
- Implementing Utility services SMS gateways to inform the public about their bills.

- January 2001 - Vega Internet Service Provider (since next work)

Sineor Network and System Administrator.

CGI-Scripting, developing user and prepaid card accounting and management system based on radius, Improving skills in C, Perl and MySQL.

From configuring to rewriting (part of code) of radius server.

Administration of ~20 linux routers/firewalls/servers, few NetBSD, couple of Cisco Routers, 2 3COM RAS (Bundle) with 6 PRI Ports (180 dual-up lines).

For more information about VEGA Internet see

<http://www.vega.bg/> (Varna), <http://www.db.vega.bg/> (Dobrich).

Short review of this assignment:

- Started as Junior and shortly after that as Senior Network and System Administrator.
- Improved my skills in programming. (C and Perl)
- Rewriting huge part of Radius Server to meet our needs.
- Implementing User Accounting System, traffic and invoices for Dial-up users.
- Vega was the biggest ISP in our city (which is the second populated after the capitol)

- December 1999 - Face 2 Net Cable ISP (since next work)

As a Linux Administrator and Network Designer. Technical Support.

Improving the development skill in C.

For more information about Face2Net ISP

see <http://www.face2net.net/>

Short review of this assignment:

- Network and System Administrator
- Face2Net was a small ISP in our city

- July 1999 - Zlatev Lawyers Agency (since next work)

Administration of one Linux and one FreeBSD servers with a couples

of Windows 9x Workstations. Development of software for document exchange.

Delphi for windows and C for linux

Short review of this assignment:

- This was the beginning of my professional career.

- White Hat years (1991-1999)
Mastering the DOS (until 1995)
Mastering Linux (since 1995)
Mastering Internet and Linux hacking.

Open Source Projects:

- 400Plus - Canon EOS 400D Camera hack
400plus is a free firmware enhancement software which offers additional functionality and capabilities to your Canon 400D/XTi camera, in both a non-destructive, and non-permanent way. It works by loading into your camera's memory automatically upon boot-up to enhance the native camera firmware; but it is not a permanent firmware upgrade, and can easily be removed. For more information about 400Plus see <https://code.google.com/p/400plus/>

Knowledge mastered from this project:

- One of my favorite open-source projects.
 - Mastering Reverse Engineering (ARM)
 - Mastering Disassembling, rewriting and interacting with ARM code.
 - Mastering Embedded programming in restricted environment.
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- Magic Lantern - Canon EOS Cameras hack
Magic Lantern is an enhancement atop of Canon's firmware that frees your Canon DSLR, allowing you to use many useful features. It is an open (GPL) framework for developing extensions to the official software. Magic Lantern runs from the card, as an add-on over standard firmware. You will still be able to access all Canon functionality. For more information about ML see <http://www.magiclantern.fm/>

Knowledge mastered from this project:

- Mastering Reverse Engineering (ARM)
- Mastering Disassembling, rewriting and interacting with ARM code.
- Mastering Embedded programming in restricted environment.

- LinuXchagE project. **(Dead project now!)**
I'm distributor for Bulgaria, if you need help about this project drop me a line.
LinuXchangE (LXE) is a robust technology infrastructure solution completely based on open source protocols and software. LXE allows you to manage all the network and collaboration services that a company needs. This peace of wonderful software will be installed in the University soon.
For more information about LXE see
<http://www.linuxchange.com/>

- **Other projects I'm (or was) participating includes:**
 - I-MSCP - Internet Multi Server Control Panel (similar to CPanel)
 - RedMatrix - Decentralized Secured Social Networking, Next Generation [Friendica](#) (similar to [Diaspora](#))

Last update of this resume: 01.Oct.2013