

Jan Janak

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Work Experience

- **Columbia University, New York** **June 2011–Present**
Research Assistant & Ph.D. Student
Lead a project designing an Internet of Things (IoT) platform. Worked on overall system design, implementation, networking protocols, and supervised a team of students.
- **Columbia University, New York** **January 2010–June 2011**
Visiting Researcher
Worked on evaluating energy efficiency of VoIP systems, software for deploying services in core Internet routers ([NetServ](#)) and software for high-performance SIP signaling.
- **Tekelec, Prague, Czech Republic** **June 2005–August 2011**
Senior Software Architect
Joined Tekelec through the acquisition of iptelorg. Worked on SER, the free SIP server, and the company's extended version of the software known as the SIP Signaling Router, Tekelec's SIP server solution for carriers.
- **iptelorg GmbH, Berlin, Germany** **January 2005–June 2005**
Co-founder and Chief Software Architect
Designed and implemented iptelorg's SER-based software for VoIP systems based on the Session Initiation Protocol (SIP). Created large-scale SIP setups scalable up to millions of users. iptelorg was acquired by Tekelec in 2005.
- **Fraunhofer FOKUS, Berlin, Germany** **September 2003–December 2004**
Researcher
Member of a group that created the [SIP Express Router](#) (SER), a high-performance SIP server implementation written in C. Created a fast protocol parser, database access layer, authentication code (HTTP digest, RADIUS, LDAP), documentation. Contributed to most parts of the code base.
- **Fraunhofer FOKUS, Berlin, Germany** **December 2001–December 2002**
Part-time Student Internship
Implemented software for remote runtime manipulation and control of NAT and firewall rules for VoIP applications on Linux hosts with iptables.

Education

- **Czech Technical University, Prague, Czech Republic** **1996–2003**
Faculty of Electrical Engineering
Department Of Computer Science And Engineering
Master of Science (MSc) equivalent degree
Major: computer science, minor: electronics

Professional Skills

- **Programming languages:** C, C++, Java, Pascal, x86 assembler, Python, Lisp
- **Operating Systems:** Unix/Linux, MAC OS X
- **Networking:** TCP/IP network programming, wireless networks, VoIP related protocols

Software Projects

List of open source software projects I am involved in or contributed to:

- **SIP Express Router**: core developer and maintainer, renamed to sip-router
- **SIP Express Media Server (SEMS)**: minor contributions
- **Kphone**: implemented DTMF support, temporarily maintained project
- **RADIUS client library**: maintained the library for a while
- **Sipsak**: minor contributions

Publications

- Baset, S. A., Reich, J., Janak, J., Kasperek, P., Misra, V., Rubenstein, D., and Schulzrinne, H. (2010). *How Green is IP-Telephony?*, SIGCOMM Workshop on Green Networking.
- Brandl, M., Franzens, K., Daskopoulos, D., Dobbelssteijn, E., Garroppo, R. G., Janak, J., Kuthan, J., Niccolini, S., Ott, J., Prell, S., Ubik, S., and Verharen, E. (2004). *IP Telephony Cookbook*. Technical report, Terena.
- Janak, J. (2003). *SIP Proxy Server Effectiveness*. Master's thesis, Czech Technical University in Prague.
- Pelinescu-Onciul, A., Janak, J., and Kuthan, J. (2003). *SIP Express Router (SER)*. IEEE Network Magazine.

Languages

- Czech (mother tongue)
- English (fluent)
- German (elementary proficiency)

References

Available upon request.