

# Tomasz Michal Klosinski

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For detailed list of projects visit:  
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I am M.A. graduate of IT (Databases) at Polish-Japanese Academy of Information Technology in Warsaw, B.A. graduate of Computer Science and B.A. graduate of Business Management, both held in English, at University of Lodz. I have been working in the Linux world for the last 4 years and I have been passionate Linux user for over 13 years. My current position is System Engineer in DevOps and Infrastructure team at CERN Control Center.

## SKILLS

- Linux (RHEL, CentOS), Bash
- Ansible, Python, Vagrant, Chef, Ruby, Jenkins
- Cloudera Hadoop
- OpenStack, Eucalyptus, Amazon Web Services
- Elasticsearch, Logstash, Kibana
- MySQL, PostgreSQL
- Apache HTTPD, nginx, HAProxy
- Nagios, Zabbix, Monit

## AREAS OF INTEREST

- DevOps, Continuous Delivery
- Big Data, Cloud Computing, IT Infrastructure
- Agile Methodologies

## EDUCATION

2010–2012  
*Polish-Japanese Academy of Information Technology (Warsaw)*  
**Databases, M.A.**  
2008–2011  
*University of Lodz*  
**Business Management, B.A.**  
2007–2010  
*University of Lodz*  
**Computer Science, B.A.**

## CERTIFICATION

[Red Hat Certified Engineer](#) (2014–2017)  
[Red Hat Certified System Administrator](#) (2014–2017)

## LANGUAGES

*Polish* (Native)  
*English* (C1)  
*French* (B1)

## Previous Experience

2015–2016  
CERN, *Project Associate*  
Geneva

At CERN Control Center I have been working in the support team of over 2000 (OpenStack) VMs, desktops and servers. Most of the servers that I have been taking care of were Linux machines providing mission critical software (code base of over 10 MLOC of Java and 500 kLOC of C++ and C, structured in roughly 1000 projects) for the operation of LHC and other accelerators. Along with my daily support and troubleshooting tasks for around 70 accelerator operators and 200 software developers, I have been involved in numerous activities in the System Administration Modernisation project.

2014–2015  
LINUX POLSKA, *Solution Architect*  
Warsaw

At Linux Polska I have worked on a continuous delivery system for building rpm packages. I have contributed also to the organization of the biggest Open Source event in Poland (which Linux Polska is co-organizing every year in May): [Open Source Day](#).

2011–2014  
IMPAQ, *Software / System Engineer*  
Warsaw

My career as a System Engineer at IMPAQ can be split into two periods. For first half year I have been member of a support team of RHEL-based telco applications for international cellular networks. For another 1.5+ year I have worked for Machine-to-Machine, Cloud Computing and Big Data Business Practice (Department).

2010–2011  
OUTBOX, *Junior Consultant*  
Warsaw

At Outbox I have worked on the development of the CRM system based on Oracle PeopleSoft platform for Telekomunikacja Polska SA.

# Most relevant projects

08/2015–Present

## PROCESS MANAGEMENT AND DEPLOYMENT (PoC) @ CERN, BE-CO-IN

- One of our most challenging projects at CERN BE-CO-IN section was to design and implement the Proof of Concept platform that could replace the former legacy service management solution, while keeping the interface and release-deploy-configure workflow for users backward compatible. The platform consisted of Python and Ansible-based tool for deployment of the accelerators controls applications, adding/removing the services to/from an applications database (to make them persistent across installations), and generating configuration for service monitoring and management (based on monit). Additionally, we provided a consistent solution for supplying the user specific checks for a service or group of services.

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04/2015–Present

## SYSTEM ADMINISTRATION MODERNISATION PROJECT @ CERN, BE-CO-IN

- My responsibilities in the project have been mostly related to the transformation of an old bash/awk/Python script-based configuration management to a modern Ansible-based solution. One of the main goals of the project was to replace inconsistent (and in some cases non-existing) version controlling systems of various parts of system configuration with a single git tree.
- Some of the most interesting challenges I have faced included developing Ansible playbooks for:
  - \* converting Python-based variable database into a set of Ansible variables
  - \* converting specific sudo and SSH configuration for all machines
  - \* implementing a filesystem monitoring system based on auditd, rsyslog, Elasticsearch, Logalike and Kibana (dashboards)
  - \* massive analysis, comparison, fixing errors and making more consistent of kickstart files for all 2000+ machines (included also changes in PXE servers and generating kickstart files based on Ansible inventory file and CERN's internal sources of data about hosts)
  - \* creating monit configuration for process management and monitoring.

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05/2015–Present

## ACCELERATOR PROJECT EXPLOITATION TOOLS - TRACING @ CERN, BE-CO-DO

- My main responsibility in DO has been system administration activities regarding the Elasticsearch/Logalike/Kibana clusters, that served as a database, search and dashboarding system for the accelerator controls applications and Linux servers' logging.
- Among numerous tasks in this area, I have been working on:
  - \* preparation of the operation systems for the smooth clusters operation
  - \* upgrade to ES 2.0 and Kibana 4
  - \* creation of nginx reverse proxy configuration
  - \* creation of monit configuration and checks for all ELK services
  - \* a little bit of Java 8 programming (Logalike extension).

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02/2015–03/2016

## AUTOMATED DELIVERY PIPELINE FOR BUILDING RPM PACKAGES @ Linux Polska

- At Linux Polska I have had the opportunity to design and implement Automated Delivery Pipeline for building RPM packages based set of bash scripts combined into consistent chain of jobs (and eventual rollbacks) in Jenkins. My responsibilities in the project included maintenance of the crucial services: Jenkins, GitLab. I have developed also multitude of mostly bash (and sometimes Python) scripts. I have managed also our git repositories. For building RPM packages we have used set of open source tools (mostly from Fedora Project): koji, mock, mash/createrepo, revisor/pungi, Sigul. Our testing environment was based on Vagrant, Packer, RHEV's virtual machines spawned during the testing phase and removed after it success or failure. We have monitored all services using Zabbix.

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07/2012–01/2014

## BIG DATA, CLOUD COMPUTING AND DEVOPS POC PROJECTS @ IMPAQ

- (1) In the very early stage of its development, I've worked on establishing and maintenance a (Ubuntu Server and KVM-based) OpenStack 12-nodes cluster integrated with a GlusterFS cluster (as a replacement for NFS for instance migration between nodes). Installation and configuration of the machines had been automated with Opscode Chef. I have really enjoyed it, although at that time it was too early for adoption for OpenStack in production. Similar deployment has been prepared by me also for Eucalyptus cloud (except the OS difference: in this project I have used CentOS).
- (2) Successful evaluation of Chef as a DevOps configuration management tool, resulted in adoption of it in of our clients project. I have written a chef cookbook for automatic orchestration of development and testing environment of Java web application run on Apache Tomcat and using Oracle XE 11g. It was an application for one of the biggest Polish insurance companies.
- (3) Finally, I have worked on few Proof of Concept projects evaluating Cloudera Hadoop. I was responsible for installation, configuration (using Chef) and maintenance of the cluster and additional tools. The projects outcome was a set of MapReduce jobs (written in Java) and deployed on 20 nodes Hadoop cluster, operating on 10TB of data. Additionally, we have used Flume for integration with Twitter API. MR Job's configuration was managed with Oozie. I've also integrated R Statistical Language with the cluster and I have written dozens of shell scripts for file manipulations on HDFS.